Tables for Electronic Publication only

Table 1. Energy levels (in Ryd) of Co XI and their lifetimes (τ in s). $a\pm b \equiv a\times10^{\pm b}$.

Index	Configuration	Level	jj Designation[a]	GRASP[b]	GRASP[c]	FAC[d]	τ (s)
1	$3s^2 3p^5$	$^2P^o_{3/2}$	3p+3(3)3	0.00000	0.00000	0.00000	.....
2	$3s^2 3p^5$	$^2P^o_{1/2}$	3p-1(1)1	0.17980	0.17551	0.17496	7.79−03
3	$3s3p^6$	$^2S_{1/2}$	3s+1(1)1	2.85091	2.84593	2.85414	2.04−10
4	$3s^2 3p^4(^3P)3d$	$^4D_{5/2}$	3p+2(4)4 3d-1(3)5	3.84851	3.84049	3.84188	1.31−07
5	$3s^2 3p^4(^3P)3d$	$^4D_{7/2}$	3p+2(4)4 3d+1(5)7	3.85123	3.84188	3.84336	1.32−02
6	$3s^2 3p^4(^3P)3d$	$^4D_{3/2}$	3p+2(4)4 3d-1(3)3	3.86139	3.85414	3.85554	1.19−07
7	$3s^2 3p^4(^3P)3d$	$^4D_{1/2}$	3p-1(1)1 3p+3(3)2 3d-1(3)1	3.87967	3.87218	3.87373	7.55−08
8	$3s^2 3p^4(^3P)3d$	$^4F_{9/2}$	3p+2(4)4 3d+1(5)9	4.15479	4.14588	4.14479	5.26−02
9	$3s^2 3p^4(^1D)3d$	$^2P_{1/2}$	3p+2(4)4 3d+1(5)1	4.17606	4.16855	4.16876	3.28−09
10	$3s^2 3p^4(^3P)3d$	$^4F_{7/2}$	3p+2(4)4 3d-1(3)7	4.21117	4.20240	4.20105	3.58−02
11	$3s^2 3p^4(^3P)3d$	$^4F_{5/2}$	3p-1(1)1 3p+3(3)2 3d-1(3)5	4.25552	4.24622	4.24506	1.51−08
12	$3s^2 3p^4(^1D)3d$	$^2P_{3/2}$	3p+2(0)0 3d-1(3)3	4.26478	4.25616	4.25552	2.22−09
13	$3s^2 3p^4(^3P)3d$	$^4F_{3/2}$	3p-1(1)1 3p+3(3)2 3d-1(3)3	4.26964	4.26116	4.26018	7.10−09
14	$3s^2 3p^4(^1D)3d$	$^2D_{3/2}$	3p+2(4)4 3d+1(5)3	4.32294	4.31494	4.31263	2.03−09
15	$3s^2 3p^4(^3P)3d$	$^4P_{1/2}$	3p+2(4)4 3d-1(3)1	4.32297	4.31630	4.31493	2.06−09
16	$3s^2 3p^4(^3P)3d$	$^4P_{3/2}$	3p-1(1)1 3p+3(3)4 3d+1(5)3	4.38476	4.37501	4.37375	8.38−08
17	$3s^2 3p^4(^3P)3d$	$^2F_{7/2}$	3p+2(4)4 3d+1(5)7	4.40012	4.39185	4.38870	8.74−03
18	$3s^2 3p^4(^3P)3d$	$^4P_{5/2}$	3p-1(1)1 3p+3(3)4 3d+1(5)5	4.40325	4.39332	4.39112	6.03−09
19	$3s^2 3p^4(^1D)3d$	$^2D_{5/2}$	3p-1(1)1 3p+3(3)2 3d+1(5)5	4.43352	4.42222	4.42012	9.90−09
20	$3s^2 3p^4(^1D)3d$	$^2G_{9/2}$	3p-1(1)1 3p+3(3)4 3d+1(5)9	4.51437	4.50193	4.49828	7.67−03
21	$3s^2 3p^4(^1D)3d$	$^2G_{7/2}$	3p-1(1)1 3p+3(3)4 3d-1(3)7	4.51497	4.50445	4.50097	8.10−03
22	$3s^2 3p^4(^3P)3d$	$^2F_{5/2}$	3p-1(1)1 3p+3(3)2 3d+1(5)5	4.54829	4.53745	4.53437	2.79−08
23	$3s^2 3p^4(^1D)3d$	$^2F_{5/2}$	3p-1(1)1 3p+3(3)4 3d-1(3)5	4.82469	4.81615	4.81085	4.21−09
24	$3s^2 3p^4(^1D)3d$	$^2F_{7/2}$	3p-1(1)1 3p+3(3)4 3d+1(5)7	4.87232	4.86106	4.85571	2.86−03
25	$3s^2 3p^4(^1S)3d$	$^2D_{3/2}$	3p+2(0)0 3d-1(3)3	5.10849	5.09978	5.09465	7.02−10
26	$3s^2 3p^4(^1S)3d$	$^2D_{5/2}$	3d+1(5)5	5.16236	5.15048	5.14533	3.47−09
27	$3s^2 3p^4(^1D)3d$	$^2S_{1/2}$	3p-1(1)1 3p+3(3)4 3d-1(3)1	5.42706	5.41875	5.40132	5.16−12
28	$3s^2 3p^4(^3P)3d$	$^2P_{3/2}$	3p+2(4)4 3d+1(5)3	5.66770	5.65882	5.64209	5.44−12
29	$3s^2 3p^4(^3P)3d$	$^2P_{1/2}$	3p-1(1)1 3p+3(3)4 3d+1(5)1	5.73350	5.72285	5.70565	5.59−12
30	$3s^2 3p^4(^3P)3d$	$^2D_{5/2}$	3p+2(4)4 3d+1(5)5	5.74805	5.73908	5.72053	4.61−12
31	$3s^2 3p^4(^3P)3d$	$^2D_{3/2}$	3p-1(1)1 3p+3(3)2 3d+1(5)3	5.90116	5.88839	5.86979	4.69−12
32	$3s3p^5(^3P)3d$	$^4P^o_{1/2}$	3s+1(1)1 3p+3(3)4 3d-1(3)1	6.58236	6.57330	6.58089	2.82−10
33	$3s3p^5(^3P)3d$	$^4P^o_{3/2}$	3s+1(1)1 3p+3(3)4 3d-1(3)3	6.61256	6.60161	6.60926	2.79−10
34	$3s3p^5(^3P)3d$	$^4P^o_{5/2}$	3s+1(1)1 3p+3(3)4 3d+1(5)5	6.66636	6.65319	6.66094	2.76−10
35	$3s3p^5(^3P)3d$	$^4F^o_{9/2}$	3s+1(1)1 3p+3(3)4 3d+1(5)9	6.91428	6.90164	6.90491	1.57−10
36	$3s3p^5(^3P)3d$	$^4F^o_{7/2}$	3s+1(1)1 3p+3(3)4 3d-1(3)7	6.94368	6.93166	6.93467	1.55−10
37	$3s3p^5(^3P)3d$	$^4F^o_{5/2}$	3s+1(1)1 3p+3(3)4 3d-1(3)5	6.97683	6.96503	6.96806	1.52−10
38	$3s3p^5(^3P)3d$	$^4F^o_{3/2}$	3s+1(1)1 3p-1(1)0 3d-1(3)3	7.00833	6.99638	6.99961	1.50−10
39	$3s3p^5(^3P)3d$	$^4D^o_{7/2}$	3s+1(1)1 3p+3(3)4 3d+1(5)7	7.23755	7.22463	7.22478	1.61−10
40	$3s3p^5(^3P)3d$	$^4D^o_{1/2}$	3s+1(1)1 3p-1(1)2 3d-1(3)1	7.24865	7.23790	7.23820	1.59−10

Table 1. Energy levels (in Ryd) of Co XI and their lifetimes (τ in s). $a\pm b \equiv a\times10^{\pm b}$.

Index	Configuration	Level	jj Designation[a]	GRASP[b]	GRASP[c]	FAC[d]	τ (s)
41	$3s3p^5(^3P)3d$	$^4D^o_{5/2}$	3s+1(1)1 3p+3(3)4 3d-1(3)5	7.25636	7.24399	7.24443	1.60−10
42	$3s3p^5(^3P)3d$	$^4D^o_{3/2}$	3s+1(1)1 3p+3(3)4 3d-1(3)3	7.25727	7.24562	7.24612	1.59−10
43	$3s3p^5(^3P)3d$	$^2F^o_{7/2}$	3s+1(1)1 3p+3(3)4 3d-1(3)7	7.34497	7.33294	7.32938	3.37−10
44	$3s3p^5(^3P)3d$	$^2D^o_{5/2}$	3s+1(1)1 3p+3(3)4 3d+1(5)5	7.38472	7.37270	7.37013	3.04−10
45	$3s3p^5(^3P)3d$	$^2D^o_{3/2}$	3s+1(1)1 3p+3(3)4 3d+1(5)3	7.43118	7.41896	7.41665	1.95−10
46	$3s3p^5(^3P)3d$	$^2F^o_{5/2}$	3s+1(1)1 3p-1(1)0 3d+1(5)5	7.47997	7.46552	7.46243	2.49−10
47	$3s3p^5(^1P)3d$	$^2P^o_{1/2}$	3s+1(1)1 3p+3(3)2 3d-1(3)1	7.55990	7.54896	7.54393	7.73−11
48	$3s3p^5(^1P)3d$	$^2P^o_{3/2}$	3s+1(1)1 3p-1(1)2 3d+1(5)3	7.65201	7.63734	7.63321	8.94−11
49	$3s^23p^3(^4S)3d^2$	$^6F^o_{1/2}$	3p-1(1)1 3p+2(4)3 3d-2(4)1	7.75552	7.74177	7.74564	5.22−09
50	$3s^23p^3(^4S)3d^2$	$^6F^o_{3/2}$	3p-1(1)1 3p+2(4)3 3d-2(4)3	7.75757	7.74338	7.74721	6.22−09
51	$3s^23p^3(^4S)3d^2$	$^6F^o_{5/2}$	3p-1(1)1 3p+2(4)3 3d-2(4)5	7.76158	7.74661	7.75041	8.18−09
52	$3s^23p^3(^4S)3d^2$	$^6F^o_{7/2}$	3p-1(1)1 3p+2(4)3 3d-1(3)2 3d+1(5)7	7.76806	7.75197	7.75578	1.21−08
53	$3s^23p^3(^4S)3d^2$	$^6F^o_{9/2}$	3p-1(1)1 3p+2(4)3 3d-1(3)4 3d+1(5)9	7.77729	7.75973	7.76365	2.15−08
54	$3s^23p^3(^4S)3d^2$	$^6F^o_{11/2}$	3p-1(1)1 3p+2(4)3 3d+2(8)11	7.78884	7.76945	7.77359	1.29−07
55	$3s3p^5(^1P)3d$	$^2F^o_{5/2}$	3s+1(1)1 3p+3(3)2 3d-1(3)5	7.85604	7.84318	7.83668	7.45−11
56	$3s3p^5(^1P)3d$	$^2F^o_{7/2}$	3s+1(1)1 3p-1(1)2 3d+1(5)7	7.90185	7.88652	7.88000	7.22−11
57	$3s^23p^3(^4S)3d^2$	$^6P^o_{3/2}$	3p-1(1)1 3p+2(4)3 3d-2(0)3	7.99678	7.98187	7.98764	7.27−09
58	$3s^23p^3(^4S)3d^2$	$^6P^o_{5/2}$	3p-1(1)1 3p+2(4)3 3d-1(3)2 3d+1(5)5	8.00153	7.98607	7.99173	5.65−09
59	$3s^23p^3(^4S)3d^2$	$^6P^o_{7/2}$	3p-1(1)1 3p+2(4)3 3d+2(4)7	8.00624	7.98913	7.99476	4.15−09
60	$3s3p^5(^1P)3d$	$^2D^o_{3/2}$	3s+1(1)1 3p+3(3)2 3d-1(3)3	8.14334	8.13093	8.12139	6.86−11
61	$3s3p^5(^1P)3d$	$^2D^o_{5/2}$	3s+1(1)1 3p+3(3)2 3d+1(5)5	8.16434	8.14994	8.14067	6.88−11
62	$3s^23p^3(^2D)3d^2$	$^4P^o_{1/2}$	3p+1(3)3 3d-1(3)4 3d+1(5)1	8.21224	8.19795	8.19793	3.56−09
63	$3s^23p^3(^4S)3d^2$	$^4D^o_{7/2}$	3p-1(1)1 3p+2(4)3 3d+2(4)7	8.22923	8.21233	8.21107	2.76−10
⋆ 64	$3s^23p^3(^4S)3d^2$	$^4D^o_{3/2}$	3p+1(3)3 3d-2(4)3	8.23429	8.22013	8.21762	2.68−10
⋆ 65	$3s^23p^3(^4S)3d^2$	$^4D^o_{5/2}$	3p+1(3)3 3d-2(4)5	8.23460	8.21891	8.21710	2.61−10
66	$3s^23p^3(^2D)3d^2$	$^4P^o_{3/2}$	3p-1(1)1 3p+2(4)3 3d-1(3)4 3d+1(5)3	8.25274	8.23740	8.23688	2.55−09
67	$3s^23p^3(^4S)3d^2$	$^4D^o_{1/2}$	3p-1(1)1 3p+2(4)3 3d-2(4)1	8.26010	8.24411	8.24314	2.18−10
68	$3s^23p^3(^2D)3d^2$	$^4G^o_{5/2}$	3p+1(3)3 3d-1(3)6 3d+1(5)5	8.27385	8.25904	8.25515	1.85−09
69	$3s^23p^3(^4S)3d^2$	$^4F^o_{3/2}$	3p+1(3)3 3d-1(3)4 3d+1(5)3	8.28462	8.26961	8.26647	6.16−10
⋆ 70	$3s^23p^3(^2D)3d^2$	$^4G^o_{7/2}$	3p-1(1)1 3p+2(4)5 3d-2(4)7	8.29171	8.27611	8.27164	2.44−09
⋆ 71	$3s^23p^3(^2D)3d^2$	$^4P^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)6 3d+1(5)5	8.29244	8.27526	8.27495	2.91−09
72	$3s^23p^3(^2D)3d^2$	$^4G^o_{9/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)9	8.31875	8.30114	8.29741	3.90−09
73	$3s^23p^3(^2D)3d^2$	$^4F^o_{5/2}$	3p-1(1)1 3p+2(4)3 3d-1(3)4 3d+1(5)5	8.33207	8.31603	8.31228	2.03−09
74	$3s^23p^3(^2D)3d^2$	$^4G^o_{11/2}$	3p-1(1)1 3p+2(4)5 3d+2(8)11	8.34495	8.32532	8.32220	4.75−09
75	$3s^23p^3(^2D)3d^2$	$^4F^o_{7/2}$	3p-1(1)1 3p+2(4)3 3d+2(8)7	8.36686	8.34916	8.34532	2.09−09
76	$3s^23p^3(^2D)3d^2$	$^4F^o_{9/2}$	3p+3(3)3 3d+2(8)9	8.40145	8.38145	8.37762	1.73−09
77	$3s^23p^3(^2D)3d^2$	$^4H^o_{7/2}$	3p+1(3)3 3d-2(4)7	8.51180	8.49815	8.48739	3.70−10
78	$3s^23p^3(^2D)3d^2$	$^4H^o_{9/2}$	3p-1(1)1 3p+2(4)3 3d-1(3)6 3d+1(5)9	8.53360	8.51832	8.50740	8.55−09
79	$3s^23p^3(^2D)3d^2$	$^4H^o_{7/2}$	3p-1(1)1 3p+2(4)3 3d-1(3)6 3d+1(5)7	8.54973	8.53364	8.52482	1.89−10

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Index	Configuration	Level	jj Designation[a]	GRASP[b]	GRASP[c]	FAC[d]	τ (s)
80	$3s^2 3p^3(^2D)3d^2$	$^4H^o_{11/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)6 3d+1(5)11	8.55456	8.53682	8.52623	9.24−08
⋆ 81	$3s^2 3p^3(^2P)3d^2$	$^2D^o_{3/2}$	3p+1(3)3 3d-2(4)3	8.58669	8.57246	8.56098	2.94−11
82	$3s^2 3p^3(^2D)3d^2$	$^2F^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d+2(4)5	8.58811	8.57179	8.56318	9.27−11
⋆ 83	$3s^2 3p^3(^2D)3d^2$	$^4H^o_{13/2}$	3p-1(1)1 3p+2(4)5 3d+2(8)13	8.59244	8.57108	8.56096	2.30−02
84	$3s3p^5(^3P)3d$	$^2P^o_{1/2}$	3s+1(1)1 3p+3(3)4 3d+1(5)1	8.60272	8.58943	8.57082	5.88−12
⋆ 85	$3s3p^5(^3P)3d$	$^2P^o_{3/2}$	3s+1(1)1 3p+3(3)4 3d+1(5)3	8.61437	8.60036	8.58296	6.43−12
⋆ 86	$3s^2 3p^3(^2D)3d^2$	$^2H^o_{9/2}$	3p-1(1)1 3p+2(4)5 3d-2(4)9	8.61741	8.60098	8.59112	1.25−09
87	$3s^2 3p^3(^2D)3d^2$	$^2H^o_{11/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)11	8.64696	8.62830	8.61819	2.62−09
88	$3s^2 3p^3(^2D)3d^2$	$^2D^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d+2(8)5	8.67853	8.66073	8.65086	4.86−11
89	$3s^2 3p^3(^2P)3d^2$	$^4G^o_{5/2}$	3p-1(1)1 3p+2(0)1 3d-2(4)5	8.71880	8.70321	8.69262	2.26−10
90	$3s^2 3p^3(^2P)3d^2$	$^4G^o_{7/2}$	3p-1(1)1 3p+2(0)1 3d-1(3)4 3d+1(5)7	8.72996	8.71392	8.70265	1.98−10
91	$3s^2 3p^3(^2P)3d^2$	$^4G^o_{9/2}$	3p-1(1)1 3p+2(4)3 3d+2(8)9	8.77138	8.75284	8.74177	2.04−10
92	$3s^2 3p^3(^2D)3d^2$	$^2G^o_{7/2}$	3p-1(1)1 3p+2(4)5 3d-2(4)7	8.80746	8.79106	8.78041	1.86−10
93	$3s^2 3p^3(^2D)3d^2$	$^2G^o_{9/2}$	3p-1(1)1 3p+2(4)5 3d+2(4)9	8.82252	8.80391	8.79343	1.86−10
94	$3s^2 3p^3(^2P)3d^2$	$^4G^o_{11/2}$	3p+3(3)3 3d+2(8)11	8.84122	8.81903	8.80825	5.23−10
95	$3s^2 3p^3(^2D)3d^2$	$^4F^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d-2(4)5	8.87812	8.86277	8.84871	1.85−11
96	$3s^2 3p^3(^2D)3d^2$	$^4F^o_{7/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)6 3d+1(5)7	8.88466	8.86814	8.85443	1.90−11
97	$3s^2 3p^3(^2D)3d^2$	$^4F^o_{3/2}$	3p-1(1)1 3p+2(4)3 3d-1(3)4 3d+1(5)3	8.88752	8.87239	8.85849	1.82−11
98	$3s^2 3p^3(^2D)3d^2$	$^4F^o_{9/2}$	3p-1(1)1 3p+2(4)5 3d+2(8)9	8.90935	8.89072	8.87757	1.98−11
99	$3s^2 3p^3(^2D)3d^2$	$^2P^o_{3/2}$	3p+1(3)3 3d-1(3)6 3d+1(5)3	8.95730	8.94323	8.92949	2.53−11
100	$3s^2 3p^3(^2P)3d^2$	$^2S^o_{1/2}$	3p-1(1)1 3p+2(4)5 3d+2(4)1	8.97482	8.96002	8.94747	9.33−11
101	$3s^2 3p^3(^2D)3d^2$	$^2I^o_{11/2}$	3p+1(3)3 3d-1(3)6 3d+1(5)11	9.02115	9.00393	8.99112	2.64−09
102	$3s^2 3p^3(^2P)3d^2$	$^4D^o_{3/2}$	3p+1(3)3 3d-2(4)3	9.02190	9.00849	8.99352	5.73−11
103	$3s^2 3p^3(^2D)3d^2$	$^4D^o_{1/2}$	3p+1(3)3 3d-2(4)1	9.02911	9.01636	8.99855	2.48−11
⋆ 104	$3s^2 3p^3(^2P)3d^2$	$^2D^o_{5/2}$	3p+1(3)3 3d-1(3)0 3d+1(5)5	9.04172	9.02654	9.01208	7.76−11
⋆ 105	$3s^2 3p^3(^2D)3d^2$	$^2I^o_{13/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)13	9.04234	9.02209	9.00968	2.51−02
106	$3s^2 3p^3(^4S)3d^2$	$^4S^o_{3/2}$	3p-1(1)1 3p+2(0)1 3d-1(3)4 3d+1(5)3	9.07752	9.06197	9.04871	9.24−11
107	$3s^2 3p^3(^4S)3d^2$	$^4S^o_{3/2}$	3p-1(1)1 3p+2(4)3 3d+2(0)3	9.08138	9.06578	9.05565	3.91−11
108	$3s^2 3p^3(^2D)3d^2$	$^2D^o_{5/2}$	3p-1(1)1 3p+2(0)1 3d-1(3)4 3d+1(5)5	9.08962	9.07372	9.05838	4.26−11
109	$3s^2 3p^3(^2P)3d^2$	$^4D^o_{7/2}$	3p+1(3)3 3d-1(3)2 3d+1(5)7	9.09399	9.07788	9.06215	6.27−11
110	$3s^2 3p^3(^2P)3d^2$	$^2F^o_{5/2}$	3p-1(1)1 3p+2(0)1 3d+2(4)5	9.09935	9.08371	9.06821	8.30−11
111	$3s^2 3p^3(^2D)3d^2$	$^2P^o_{1/2}$	3p+3(3)3 3d+2(4)1	9.10554	9.08742	9.07407	2.80−11
112	$3s^2 3p^3(^2D)3d^2$	$^4F^o_{3/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)3	9.11040	9.09572	9.08092	7.17−11
113	$3s^2 3p^3(^2D)3d^2$	$^2G^o_{7/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)7	9.14111	9.12417	9.10816	9.41−11
114	$3s^2 3p^3(^2P)3d^2$	$^4D^o_{5/2}$	3p-1(1)1 3p+2(0)1 3d-1(3)2 3d+1(5)5	9.14195	9.12553	9.10921	3.36−11
115	$3s^2 3p^3(^2P)3d^2$	$^4F^o_{9/2}$	3p-1(1)1 3p+2(0)1 3d-1(3)4 3d+1(5)9	9.16174	9.14324	9.12725	1.41−10
116	$3s^2 3p^3(^2P)3d^2$	$^4F^o_{7/2}$	3p+3(3)3 3d-1(3)6 3d+1(5)7	9.16570	9.14828	9.13199	2.40−10
117	$3s^2 3p^3(^2P)3d^2$	$^2F^o_{7/2}$	3p+3(3)3 3d+2(4)7	9.20822	9.18866	9.17210	2.89−11
118	$3s^2 3p^3(^2P)3d^2$	$^4D^o_{1/2}$	3p+1(3)3 3d-1(3)6 3d+1(5)1	9.23826	9.22492	9.20845	4.64−11
⋆ 119	$3s^2 3p^3(^2D)3d^2$	$^4D^o_{3/2}$	3p-1(1)1 3p+2(4)5 3d-2(4)3	9.25345	9.23920	9.22290	4.68−11
⋆ 120	$3s^2 3p^3(^2D)3d^2$	$^2G^o_{9/2}$	3p+3(3)3 3d+2(8)9	9.25437	9.23367	9.21717	3.82−10

Table 1. Energy levels (in Ryd) of Co XI and their lifetimes (τ in s). $a\pm b \equiv a\times10^{\pm b}$.

Index	Configuration	Level	jj Designation[a]	GRASP[b]	GRASP[c]	FAC[d]	τ (s)
121	$3s^2 3p^3(^2D)3d^2$	$^4D^o_{5/2}$	3p+1(3)3 3d-1(3)2 3d+1(5)5	9.27334	9.25786	9.24152	4.06−11
122	$3s^2 3p^3(^2D)3d^2$	$^2F^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)6 3d+1(5)5	9.32723	9.31126	9.29251	3.09−11
123	$3s^2 3p^3(^2D)3d^2$	$^4D^o_{7/2}$	3p+3(3)3 3d+2(4)7	9.34218	9.32346	9.30639	3.01−11
124	$3s^2 3p^3(^2P)3d^2$	$^4P^o_{3/2}$	3p-1(1)1 3p+2(0)1 3d-1(3)4 3d+1(5)3	9.35504	9.33830	9.32322	7.45−11
125	$3s^2 3p^3(^2P)3d^2$	$^4P^o_{5/2}$	3p-1(1)1 3p+2(0)1 3d+2(4)5	9.36311	9.34601	9.32759	2.77−11
126	$3s^2 3p^3(^2P)3d^2$	$^4P^o_{1/2}$	3p-1(1)1 3p+2(0)1 3d-1(3)4 3d+1(5)1	9.37152	9.35520	9.33969	5.46−11
127	$3s^2 3p^3(^4S)3d^2$	$^4G^o_{11/2}$	3p+1(3)3 3d+2(8)11	9.38431	9.36617	9.34816	1.44−11
128	$3s^2 3p^3(^4S)3d^2$	$^4G^o_{9/2}$	3p+1(3)3 3d-1(3)6 3d+1(5)9	9.39111	9.37447	9.35571	1.41−11
⋆ 129	$3s^2 3p^3(^2D)3d^2$	$^4P^o_{1/2}$	3p-1(1)1 3p+2(4)3 3d-1(3)4 3d+1(5)1	9.42235	9.40773	9.38420	5.49−12
⋆ 130	$3s^2 3p^3(^4S)3d^2$	$^4G^o_{7/2}$	3p-1(1)1 3p+2(4)3 3d-1(3)4 3d+1(5)7	9.42256	9.40560	9.38684	1.40−11
131	$3s^2 3p^3(^2D)3d^2$	$^4P^o_{3/2}$	3p-1(1)1 3p+2(4)5 3d-2(4)3	9.43039	9.41500	9.39175	5.52−12
132	$3s^2 3p^3(^4S)3d^2$	$^4G^o_{5/2}$	3p-1(1)1 3p+2(0)1 3d-2(4)5	9.43396	9.41760	9.39884	1.39−11
⋆ 133	$3s^2 3p^3(^2P)3d^2$	$^2P^o_{1/2}$	3p+3(3)3 3d+2(4)1	9.45197	9.43710	9.41358	9.60−12
134	$3s^2 3p^3(^2D)3d^2$	$^4P^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)2 3d+1(5)5	9.45361	9.43679	9.41341	5.43−12
⋆ 135	$3s^2 3p^3(^2P)3d^2$	$^2F^o_{7/2}$	3p+3(3)3 3d+2(8)7	9.45568	9.43658	9.41570	1.80−11
136	$3s^2 3p^3(^2D)3d^2$	$^2G^o_{9/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)4 3d+1(5)9	9.48464	9.46675	9.44997	1.51−11
137	$3s^2 3p^3(^2P)3d^2$	$^2P^o_{3/2}$	3p-1(1)1 3p+2(0)1 3d+2(4)3	9.52505	9.50874	9.48448	8.48−12
138	$3s^2 3p^3(^2D)3d^2$	$^2G^o_{7/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)4 3d+1(5)7	9.54737	9.52896	9.51082	1.49−11
139	$3s^2 3p^3(^2P)3d^2$	$^2H^o_{11/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)6 3d+1(5)11	9.56838	9.54931	9.53138	1.39−10
140	$3s^2 3p^3(^2P)3d^2$	$^2H^o_{9/2}$	3p-1(1)1 3p+2(0)1 3d-1(3)4 3d+1(5)9	9.62508	9.60595	9.58744	4.68−10
141	$3s^2 3p^3(^2P)3d^2$	$^2D^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d+2(0)5	9.65601	9.64006	9.62050	3.82−11
142	$3s^2 3p^3(^2D)3d^2$	$^2D^o_{3/2}$	3p-1(1)1 3p+2(4)3 3d+2(0)3	9.68409	9.66901	9.65102	6.61−11
143	$3s^2 3p^3(^2D)3d^2$	$^2H^o_{9/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)9	9.69784	9.68047	9.65631	1.16−11
144	$3s^2 3p^3(^2D)3d^2$	$^4D^o_{7/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)2 3d+1(5)7	9.72900	9.71295	9.68431	5.73−12
145	$3s^2 3p^3(^2D)3d^2$	$^4D^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d-2(0)5	9.76535	9.74896	9.72048	5.78−12
146	$3s^2 3p^3(^2D)3d^2$	$^4D^o_{3/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)3	9.77788	9.76187	9.73308	5.83−12
⋆ 147	$3s^2 3p^3(^2D)3d^2$	$^4D^o_{1/2}$	3p+3(3)3 3d-1(3)6 3d+1(5)1	9.78120	9.76555	9.73664	5.97−12
⋆ 148	$3s^2 3p^3(^2D)3d^2$	$^2H^o_{11/2}$	3p+3(3)3 3d-1(3)6 3d+1(5)11	9.78663	9.76555	9.74243	1.13−11
149	$3s^2 3p^3(^2D)3d^2$	$^2F^o_{7/2}$	3p-1(1)1 3p+2(4)5 3d+2(4)7	9.78988	9.77335	9.74509	6.53−12
150	$3s^2 3p^3(^2P)3d^2$	$^4D^o_{5/2}$	3p+1(3)3 3d-1(3)4 3d+1(5)5	9.80582	9.79088	9.76307	5.18−12
151	$3s^2 3p^3(^2P)3d^2$	$^4D^o_{7/2}$	3p-1(1)1 3p+2(0)1 3d+2(8)7	9.82211	9.80524	9.77758	5.67−12
152	$3s^2 3p^3(^2P)3d^2$	$^4D^o_{3/2}$	3p+1(3)3 3d-1(3)2 3d+1(5)3	9.83230	9.81721	9.78964	5.05−12
⋆ 153	$3s^2 3p^3(^2P)3d^2$	$^2F^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)5	9.85990	9.84365	9.81435	6.96−12
⋆ 154	$3s^2 3p^3(^2P)3d^2$	$^4D^o_{1/2}$	3p+3(3)3 3d-2(4)1	9.85996	9.84424	9.81697	4.91−12
155	$3s^2 3p^3(^4S)3d^2$	$^4F^o_{9/2}$	3p+1(3)3 3d+2(8)9	9.86236	9.84518	9.81421	4.49−12
156	$3s^2 3p^3(^4S)3d^2$	$^4F^o_{7/2}$	3p-1(1)1 3p+2(4)3 3d+2(8)7	9.91946	9.90246	9.87163	4.68−12
157	$3s^2 3p^3(^2D)3d^2$	$^2D^o_{5/2}$	3p+3(3)3 3d-1(3)2 3d+1(5)5	9.94242	9.92559	9.89615	6.39−12
158	$3s^2 3p^3(^2P)3d^2$	$^2G^o_{7/2}$	3p-1(1)1 3p+2(0)1 3d-1(3)2 3d+1(5)7	9.94399	9.92702	9.90084	1.31−11

Table 1. Energy levels (in Ryd) of Co XI and their lifetimes (τ in s). $a\pm b \equiv a\times10^{\pm b}$.

Index	Configuration	Level	jj Designation[a]	GRASP[b]	GRASP[c]	FAC[d]	τ (s)
159	$3s^2 3p^3(^2D)3d^2$	$^2D^o_{3/2}$	3p-1(1)1 3p+2(4)5 3d+2(4)3	9.94611	9.92969	9.90005	6.12−12
⋆ 160	$3s^2 3p^3(^4S)3d^2$	$^2P^o_{1/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)6 3d+1(5)1	9.96763	9.95233	9.92309	5.62−12
⋆ 161	$3s^2 3p^3(^4S)3d^2$	$^4F^o_{5/2}$	3p+3(3)3 3d-2(4)5	9.96940	9.95201	9.92121	4.60−12
162	$3s^2 3p^3(^2P)3d^2$	$^4F^o_{3/2}$	3p+3(3)3 3d-2(4)3	9.99396	9.97752	9.94661	4.65−12
163	$3s^2 3p^3(^2P)3d^2$	$^2P^o_{1/2}$	3p-1(1)1 3p+2(0)1 3d+2(0)1	10.00410	9.98824	9.96610	2.74−11
164	$3s^2 3p^3(^2P)3d^2$	$^2P^o_{3/2}$	3p+3(3)3 3d+2(0)3	10.00656	9.99020	9.96622	1.64−11
165	$3s^2 3p^3(^2P)3d^2$	$^2G^o_{9/2}$	3p+3(3)3 3d-1(3)4 3d+1(5)9	10.01696	9.99696	9.97178	1.49−11
166	$3s^2 3p^3(^4S)3d^2$	$^2P^o_{3/2}$	3p-1(1)1 3p+2(4)3 3d-2(0)3	10.01701	10.00068	9.96994	5.34−12
167	$3s^2 3p^3(^2D)3d^2$	$^2F^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)2 3d+1(5)5	10.03366	10.01820	9.99097	1.04−11
168	$3s^2 3p^3(^2D)3d^2$	$^2S^o_{1/2}$	3p-1(1)1 3p+2(4)5 3d+2(4)1	10.03833	10.02237	9.99396	5.49−12
169	$3s^2 3p^3(^2D)3d^2$	$^2D^o_{3/2}$	3p+1(3)3 3d+2(4)3	10.07910	10.06304	10.03330	5.48−12
170	$3s^2 3p^3(^2D)3d^2$	$^2D^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)4 3d+1(5)5	10.08790	10.07109	10.04097	5.68−12
171	$3s^2 3p^3(^2D)3d^2$	$^2F^o_{7/2}$	3p+3(3)3 3d-1(3)4 3d+1(5)7	10.09843	10.07984	10.05003	6.54−12
172	$3s^2 3p^3(^4S)3d^2$	$^4P^o_{5/2}$	3p-1(1)1 3p+2(4)3 3d+2(4)5	10.11768	10.10008	10.07002	5.28−12
⋆ 173	$3s^2 3p^3(^4S)3d^2$	$^4P^o_{1/2}$	3p-1(1)1 3p+2(4)3 3d+2(4)1	10.12525	10.10766	10.07822	4.86−12
⋆ 174	$3s^2 3p^3(^4S)3d^2$	$^4P^o_{3/2}$	3p+3(3)3 3d-1(3)2 3d+1(5)3	10.12537	10.10728	10.07962	6.24−12
175	$3s^2 3p^3(^2P)3d^2$	$^2F^o_{5/2}$	3p-1(1)1 3p+2(0)1 3d+2(4)5	10.14494	10.12762	10.09654	6.44−12
176	$3s^2 3p^3(^2P)3d^2$	$^4S^o_{3/2}$	3p-1(1)1 3p+2(0)1 3d-1(3)2 3d+1(5)3	10.20192	10.18469	10.15610	4.82−12
177	$3s^2 3p^3(^2P)3d^2$	$^2F^o_{7/2}$	3p+3(3)3 3d+2(8)7	10.22186	10.20273	10.17498	1.26−11
178	$3s3p^4 3d^2$	$^6S_{5/2}$	3p-1(1)1 3p+2(4)5 3d+2(0)5	10.26591	10.24690	10.24679	1.01−09
179	$3s^2 3p^3(^2D)3d^2$	$^2D^o_{5/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)6 3d+1(5)5	10.29780	10.28060	10.25950	4.99−12
180	$3s^2 3p^3(^2P)3d^2$	$^2D^o_{3/2}$	3p+3(3)3 3d-1(3)4 3d+1(5)3	10.29875	10.28230	10.24867	4.93−12
181	$3s3p^4 3d^2$	$^6D_{1/2}$	3s+1(1)1 3p+2(4)5 3d-2(4)1	10.32640	10.31009	10.31889	5.54−10
182	$3s3p^4 3d^2$	$^6D_{3/2}$	3s+1(1)1 3p+2(4)5 3d-2(4)3	10.32905	10.31219	10.32100	5.58−10
183	$3s3p^4 3d^2$	$^6D_{5/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)2 3d+1(5)5	10.33385	10.31617	10.32502	5.67−10
184	$3s3p^4 3d^2$	$^6D_{7/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)6 3d+1(5)7	10.34104	10.32217	10.33117	5.81−10
185	$3s3p^4 3d^2$	$^6D_{9/2}$	3s+1(1)1 3p+2(4)5 3d+2(4)9	10.35172	10.33101	10.34038	6.08−10
186	$3s^2 3p^3(^2P)3d^2$	$^2G^o_{7/2}$	3p+3(3)3 3d-2(4)7	10.41535	10.39845	10.36050	4.54−12
187	$3s^2 3p^3(^2P)3d^2$	$^2G^o_{9/2}$	3p-1(1)1 3p+2(0)1 3d+2(8)9	10.42140	10.40193	10.36390	4.57−12
188	$3s3p^4 3d^2$	$^6F_{11/2}$	3s+1(1)1 3p+2(4)5 3d+2(8)11	10.46980	10.44822	10.45472	3.83−10
⋆ 189	$3s3p^4 3d^2$	$^6F_{1/2}$	3s+1(1)1 3p-1(1)0 3p+3(3)3 3d-2(4)1	10.47479	10.45736	10.46391	3.80−10
⋆ 190	$3s3p^4 3d^2$	$^6F_{9/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)4 3d+1(5)9	10.47551	10.45495	10.46147	3.88−10
191	$3s3p^4 3d^2$	$^6F_{3/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)2 3d+1(5)3	10.47640	10.45852	10.46508	3.83−10
⋆ 192	$3s3p^4 3d^2$	$^6F_{5/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)0 3d+1(5)5	10.47812	10.45951	10.46608	3.86−10
⋆ 193	$3s3p^4 3d^2$	$^6F_{7/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)2 3d+1(5)7	10.47836	10.45883	10.46540	3.89−10
194	$3s^2 3p^3(^2D)3d^2$	$^2F^o_{5/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)6 3d+1(5)5	10.53846	10.52143	10.48396	4.68−12
195	$3s^2 3p^3(^2D)3d^2$	$^2F^o_{7/2}$	3p-1(1)1 3p+2(4)5 3d+2(4)7	10.55745	10.53861	10.50134	4.78−12
196	$3p^6 3d$	$^2D_{3/2}$	3d-1(3)3	10.60313	10.58882	10.58137	9.25−11
197	$3p^6 3d$	$^2D_{5/2}$	3d+1(5)5	10.63653	10.61995	10.61264	9.09−11
198	$3s^2 3p^3(^2D)3d^2$	$^2D^o_{3/2}$	3p-1(1)1 3p+2(4)5 3d+2(8)3	10.71421	10.69879	10.65927	5.39−12
199	$3s3p^4 3d^2$	$^6G_{13/2}$	3s+1(1)1 3p+2(4)5 3d+2(8)13	10.73639	10.71471	10.71594	1.62−10
200	$3s^2 3p^3(^2D)3d^2$	$^2D^o_{5/2}$	3p+3(3)3 3d+2(8)5	10.75023	10.73234	10.69294	5.54−12

Table 1. Energy levels (in Ryd) of Co XI and their lifetimes (τ in s). $a\pm b \equiv a\times10^{\pm b}$.

Index	Configuration	Level	jj Designation[a]	GRASP[b]	GRASP[c]	FAC[d]	τ (s)
201	$3s^23p^3(^2D)3d^2$	$^2P^o_{1/2}$	3p+3(3)3 3d-2(4)1	10.75620	10.74040	10.70095	3.84−12
202	$3s3p^43d^2$	$^6G_{11/2}$	3s+1(1)1 3p-1(1)0 3p+3(3)3 3d+2(8)11	10.76945	10.74853	10.74959	1.57−10
203	$3s^23p^3(^2D)3d^2$	$^2P^o_{3/2}$	3p-1(1)1 3p+2(4)5 3d-1(3)2 3d+1(5)3	10.78481	10.76799	10.72845	4.01−12
204	$3s3p^43d^2$	$^6G_{9/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)6 3d+1(5)9	10.79217	10.77207	10.77306	1.53−10
205	$3s3p^43d^2$	$^6G_{7/2}$	3s+1(1)1 3p-1(1)0 3p+3(3)3 3d-2(4)7	10.80804	10.78871	10.78970	1.49−10
206	$3s3p^43d^2$	$^6G_{5/2}$	3s+1(1)1 3p-1(1)0 3p+3(3)3 3d-2(4)5	10.81880	10.80016	10.80117	1.47−10
207	$3s3p^43d^2$	$^6G_{3/2}$	3s+1(1)1 3d-2(4)3	10.82565	10.80753	10.80856	1.46−10
208	$3s^23p^3(^2P)3d^2$	$^2P^o_{1/2}$	3p-1(1)1 3p+2(0)1 3d-2(0)1	10.89370	10.87917	10.83611	4.18−12
209	$3s^23p^3(^2P)3d^2$	$^2P^o_{3/2}$	3p-1(1)1 3p+2(0)1 3d-1(3)2 3d+1(5)3	10.95316	10.93600	10.89311	4.11−12
210	$3s3p^43d^2$	$^4P_{1/2}$	3s+1(1)1 3p+2(4)5 3d-2(4)1	10.95959	10.94183	10.94064	2.45−10
211	$3s3p^43d^2$	$^4P_{3/2}$	3s+1(1)1 3p+2(4)5 3d+2(4)3	10.97125	10.95254	10.95145	2.40−10
212	$3s3p^43d^2$	$^4P_{5/2}$	3s+1(1)1 3p+2(4)5 3d+2(4)5	10.98452	10.96502	10.96314	2.37−10
213	$3s^23p^44s$	$^4P_{5/2}$	3p+2(4)4 4s+1(1)5	11.04757	11.03993	11.01243	3.80−10
214	$3s3p^43d^2$	$^4F_{3/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)4 3d+1(5)3	11.07172	11.05420	11.05021	3.03−10
⋆ 215	$3s3p^43d^2$	$^4F_{5/2}$	3p+1(3)3 3d+2(8)5	11.08508	11.06663	11.02198	3.25−10
⋆ 216	$3s^23p^3(^2P)3d^2$	$^2D^o_{5/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)0 3d+1(5)5	11.08526	11.06859	11.06280	3.78−12
217	$3s3p^43d^2$	$^4G_{11/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)11	11.09020	11.06940	11.06592	2.78−10
218	$3s3p^43d^2$	$^4F_{7/2}$	3s+1(1)1 3p+2(4)5 3d-2(4)7	11.09522	11.07592	11.07208	3.46−10
219	$3s3p^43d^2$	$^4F_{9/2}$	3s+1(1)1 3p+2(4)5 3d-2(4)9	11.09685	11.07684	11.07281	3.54−10
220	$3s3p^43d^2$	$^4G_{9/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)6 3d+1(5)9	11.10928	11.08873	11.08540	2.43−10
221	$3s^23p^3(^2P)3d^2$	$^2D^o_{3/2}$	3p+3(3)3 3d-1(3)6 3d+1(5)3	11.11638	11.09953	11.09654	3.79−12
222	$3s3p^43d^2$	$^6P_{7/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)2 3d+1(5)7	11.12772	11.10841	11.10518	2.20−10
223	$3s3p^43d^2$	$^6P_{7/2}$	3p+1(3)3 3d+2(8)7	11.12938	11.11131	11.10683	1.46−10
224	$3s^23p^44s$	$^4P_{3/2}$	3p+2(4)4 4s+1(1)3	11.13175	11.12353	11.10884	2.15−11
225	$3s3p^43d^2$	$^4G_{5/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)0 3d+1(5)5	11.15241	11.13257	11.05274	2.25−10
226	$3s3p^43d^2$	$^6D_{5/2}$	3s+1(1)1 3p+2(4)5 3d-2(0)5	11.15489	11.13721	11.12939	1.36−10
227	$3s3p^43d^2$	$^6D_{9/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)4 3d+1(5)9	11.16138	11.14124	11.13495	1.23−10
228	$3s^23p^3(^4S)3d^2$	$^2F^o_{7/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)2 3d+1(5)7	11.16870	11.15190	11.13829	3.42−12
229	$3s3p^43d^2$	$^6D_{3/2}$	3s+1(1)1 3p-1(1)0 3p+3(3)3 3d-2(0)3	11.17525	11.15775	11.17493	1.25−10
230	$3s3p^43d^2$	$^6D_{1/2}$	3s+1(1)1 3p+2(4)5 3d-2(4)1	11.18994	11.17277	11.15543	1.28−10
231	$3s3p^43d^2$	$^6D_{7/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)6 3d+1(5)7	11.19720	11.17748	11.16124	1.29−10
232	$3s^23p^44s$	$^4P_{1/2}$	3p-1(1)1 3p+3(3)2 4s+1(1)1	11.20260	11.19201	11.17168	2.39−10
233	$3s3p^43d^2$	$^6P_{5/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)6 3d+1(5)5	11.22017	11.20063	11.19845	1.34−10
234	$3s3p^43d^2$	$^6P_{3/2}$	3s+1(1)1 3d-1(3)2 3d+1(5)3	11.22943	11.21046	11.20861	1.40−10
235	$3s^23p^44s$	$^2P_{3/2}$	3p-1(1)1 3p+3(3)2 4s+1(1)3	11.25392	11.24456	11.22100	7.85−12
236	$3s^23p^3(^4S)3d^2$	$^2F^o_{5/2}$	3p-1(1)1 3p+2(4)3 3d+2(8)5	11.29065	11.27095	11.22573	3.51−12
237	$3s3p^43d^2$	$^4D_{7/2}$	3s+1(1)1 3p+2(4)5 3d+2(4)7	11.29571	11.27650	11.27067	1.25−10
238	$3s3p^43d^2$	$^4D_{5/2}$	3s+1(1)1 3p+2(4)5 3d+2(4)5	11.31458	11.29582	11.29002	1.14−10
239	$3s3p^43d^2$	$^4D_{3/2}$	3s+1(1)1 3p-1(1)0 3p+3(3)3 3d-2(4)3	11.33831	11.31943	11.31377	1.01−10
240	$3s3p^43d^2$	$^4F_{9/2}$	3s+1(1)1 3p-1(1)2 3p+3(3)5 3d+2(4)9	11.34337	11.32182	11.31569	1.41−10

Table 1. Energy levels (in Ryd) of Co XI and their lifetimes (τ in s). $a\pm b \equiv a\times10^{\pm b}$.

Index	Configuration	Level	jj Designation[a]	GRASP[b]	GRASP[c]	FAC[d]	τ (s)
241	$3s^2 3p^4 4s$	$^2P_{1/2}$	3p-1(1)1 3p+3(3)2 4s+1(1)1	11.35122	11.34096	11.31951	5.80−12
242	$3s3p^4 3d^2$	$^4D_{1/2}$	3s+1(1)1 3p-1(1)0 3p+3(3)3 3d+2(4)1	11.35697	11.33786	11.33219	5.65−11
243	$3s3p^4 3d^2$	$^4F_{7/2}$	3s+1(1)1 3p-1(1)0 3p+3(3)3 3d+2(4)7	11.36730	11.34662	11.34058	1.22−10
244	$3s3p^4 3d^2$	$^4F_{5/2}$	3s+1(1)1 3d+2(4)5	11.37870	11.35837	11.35215	1.15−10
245	$3s3p^4 3d^2$	$^4F_{3/2}$	3s+1(1)1 3d+2(4)3	11.38347	11.36350	11.35714	1.13−10
246	$3s^2 3p^4 4s$	$^2D_{5/2}$	3p-1(1)1 3p+3(3)4 4s+1(1)5	11.50776	11.49737	11.46521	1.62−11
247	$3s^2 3p^4 4s$	$^2D_{3/2}$	3p-1(1)1 3p+3(3)4 4s+1(1)3	11.51474	11.50419	11.47266	1.35−11
248	$3s3p^4 3d^2$	$^4H_{13/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)13	11.55731	11.53682	11.52616	1.73−10
⋆ 249	$3s3p^4 3d^2$	$^4D_{3/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)3	11.56134	11.54346	11.53406	9.34−11
⋆ 250	$3s3p^4 3d^2$	$^4D_{5/2}$	3s+1(1)1 3p+2(4)5 3d-2(0)5	11.56157	11.54316	11.53380	1.05−10
251	$3s3p^4 3d^2$	$^4D_{1/2}$	3s+1(1)1 3p+2(4)3 3d-1(3)6 3d+1(5)1	11.56585	11.54813	11.53872	8.33−11
252	$3s3p^4 3d^2$	$^4D_{7/2}$	3s+1(1)1 3p-1(1)2 3p+3(3)5 3d+2(4)7	11.58281	11.56235	11.55323	1.07−10
253	$3s3p^4 3d^2$	$^4H_{11/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)6 3d+1(5)11	11.60937	11.58855	11.57807	1.46−10
254	$3s3p^4 3d^2$	$^2D_{3/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)2 3d+1(5)3	11.62198	11.60338	11.59252	8.94−11
255	$3s3p^4 3d^2$	$^2D_{5/2}$	3s+1(1)1 3p-1(1)2 3p+3(3)5 3d-2(4)5	11.62602	11.60665	11.59607	9.56−11
256	$3s3p^4 3d^2$	$^4H_{9/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)4 3d+1(5)9	11.64059	11.62015	11.60935	1.14−10
257	$3s3p^4 3d^2$	$^4H_{7/2}$	3s+1(1)1 3d-1(3)2 3d+1(5)7	11.65250	11.63367	11.62131	8.39−11
258	$3s3p^4 3d^2$	$^2S_{1/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)4 3d+1(5)1	11.65945	11.64153	11.63140	1.08−10
259	$3s3p^4 3d^2$	$^4G_{5/2}$	3s+1(1)1 3p+2(4)3 3d-2(4)5	11.66379	11.64623	11.63176	8.34−11
260	$3s3p^4 3d^2$	$^4P_{5/2}$	3p-1(1)2 3p+3(3)5 3d-1(3)8 3d+1(5)5	11.67044	11.65090	11.63805	8.27−11
⋆ 261	$3s3p^4 3d^2$	$^4H_{7/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)6 3d+1(5)7	11.67185	11.65257	11.64093	1.03−10
⋆ 262	$3s3p^4 3d^2$	$^4G_{9/2}$	3s+1(1)1 3p+2(4)5 3d-2(4)9	11.67196	11.65236	11.63939	8.51−11
⋆ 263	$3s3p^4 3d^2$	$^4P_{3/2}$	3p-1(1)2 3p+3(3)5 3d-1(3)6 3d+1(5)3	11.67959	11.66036	11.65031	7.97−11
⋆ 264	$3s3p^4 3d^2$	$^4G_{11/2}$	3s+1(1)1 3p-1(1)2 3p+3(3)5 3d+2(8)11	11.68017	11.65885	11.64466	7.53−11
265	$3s3p^4 3d^2$	$^2F_{5/2}$	3s+1(1)1 3p-1(1)0 3p+3(3)3 3d+2(4)5	11.70705	11.68741	11.67444	1.07−10
266	$3s3p^4 3d^2$	$^2S_{1/2}$	3s+1(1)1 3p-1(1)2 3p+3(3)5 3d+2(4)1	11.72394	11.70353	11.69301	1.06−10
267	$3s3p^4 3d^2$	$^2F_{7/2}$	3s+1(1)1 3p-1(1)2 3p+3(3)5 3d+2(4)7	11.72465	11.70472	11.67636	1.26−10
268	$3s^2 3p^3(^2D)3d^2$	$^2P^o_{3/2}$	3p-1(1)1 3p+2(4)3 3d-1(3)6 3d+1(5)3	11.73108	11.71493	11.69119	2.00−12
269	$3s3p^4 3d^2$	$^4H_{7/2}$	3s+1(1)1 3p+2(4)3 3d-2(4)7	11.75003	11.73048	11.71714	1.09−10
270	$3s3p^4 3d^2$	$^4H_{9/2}$	3s+1(1)1 3p-1(1)0 3p+3(3)3 3d+2(8)9	11.75215	11.73196	11.71725	1.18−10
271	$3s3p^4 3d^2$	$^4H_{11/2}$	3p-1(1)2 3p+3(3)5 3d-1(3)8 3d+1(5)11	11.77271	11.75090	11.73700	8.90−11
⋆ 272	$3s3p^4 3d^2$	$^4H_{9/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)6 3d+1(5)9	11.77920	11.75861	11.74430	1.29−10
⋆ 273	$3s3p^4 3d^2$	$^4H_{13/2}$	3s+1(1)1 3p-1(1)2 3p+3(3)5 3d+2(8)13	11.78005	11.75631	11.74261	8.43−11
274	$3s3p^4 3d^2$	$^4F_{3/2}$	3p-1(1)2 3p+3(3)5 3d-1(3)2 3d+1(5)3	11.79982	11.78141	11.76814	6.65−11
275	$3s3p^4 3d^2$	$^2G_{7/2}$	3p-1(1)0 3p+3(3)3 3d-1(3)6 3d+1(5)7	11.80293	11.78224	11.76881	1.25−10
276	$3s3p^4 3d^2$	$^4F_{5/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)2 3d+1(5)5	11.81291	11.79401	11.78061	6.69−11
277	$3s^2 3p^3(^4S)3d^2$	$^2P^o_{1/2}$	3p+3(3)3 3d-1(3)6 3d+1(5)1	11.82726	11.80836	11.76865	2.03−12
278	$3s3p^4 3d^2$	$^4F_{7/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)4 3d+1(5)7	11.83636	11.81599	11.80248	7.26−11
279	$3s3p^4 3d^2$	$^4F_{9/2}$	3s+1(1)1 3d+2(8)9	11.86684	11.84496	11.83147	6.90−11
280	$3s3p^4 3d^2$	$^4D_{1/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)4 3d+1(5)1	11.87348	11.85713	11.83846	2.06−11
281	$3s3p^4 3d^2$	$^4D_{3/2}$	3s+1(1)1 3p+2(4)5 3d-2(4)3	11.88769	11.87072	11.85314	2.77−11
282	$3s3p^4 3d^2$	$^2P_{3/2}$	3s+1(1)1 3p+2(4)5 3d-1(3)8 3d+1(5)3	11.92100	11.90236	11.88606	3.91−11
283	$3s3p^4 3d^2$	$^4D_{5/2}$	3s+1(1)1 3p+2(4)5 3d+2(8)5	11.93173	11.91298	11.89412	1.78−11
284	$3s3p^4 3d^2$	$^2P_{1/2}$	3s+1(1)1 3p-1(1)0 3p+3(3)3 3d+2(4)1	11.97788	11.95749	11.94273	1.02−10
285	$3s3p^4 3d^2$	$^4D_{7/2}$	3s+1(1)1 3p-1(1)2 3p+3(3)5 3d+2(8)7	11.98122	11.96052	11.94160	1.71−11
286	$3s3p^4(^2D)3d^2$	$^2H_{9/2}$	3p-1(1)2 3p+3(3)5 3d-1(3)8 3d+1(5)9	11.98355	11.96253	11.94568	2.56−10
287	$3s^2 3p^4(^1S)4s$	$^2S_{1/2}$	3p-1(1)1 3p+3(3)2 4s+1(1)1	12.00011	11.98931	11.95196	1.10−11

⋆: The level has switched position with the inclusion of Breit and QED effects

a: The number after ± or inside a bracket is 2J, p− ≡ $p_{1/2}$, p+ ≡ $p_{3/2}$, d− ≡ $d_{3/2}$, and d+ ≡ $d_{5/2}$, for example: the configuration 7, i.e. 3p-1(1)1 3p+3(3)2 3d-1(3)1 is ≡ $3p_{1/2}(1)1\ 3p^3_{3/2}(3)2\ 3d_{3/2}(3)1$

b: Coulomb energies from the GRASP code

c: QED corrected energies from the GRASP code

d: Energies from the Flexible Atomic Code (FAC) of Gu (2003)

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
1	3	3.202+02	3.430+09	2.636−02	2	16	2.170+02	4.458+06	6.294−05
1	4	2.373+02	7.660+06	9.699−05	2	25	1.851+02	4.809+08	4.938−03
1	6	2.364+02	8.398+06	7.038−05	2	27	1.738+02	4.413+10	1.998−01
1	7	2.353+02	5.778+06	2.399−05	2	28	1.662+02	3.881+09	3.214−02
1	9	2.186+02	5.124+07	1.835−04	2	29	1.643+02	1.346+11	5.445−01
1	11	2.146+02	6.640+07	6.877−04	2	31	1.595+02	2.053+11	1.566+00
1	12	2.141+02	2.950+08	2.027−03	2	224	8.324+01	1.638+09	3.403−03
1	13	2.139+02	1.254+08	8.597−04	2	229	8.298+01	1.800+07	3.715−05
1	14	2.112+02	3.324+08	2.223−03	2	230	8.286+01	1.145+08	1.179−04
1	15	2.111+02	4.185+08	1.398−03	2	232	8.272+01	2.943+09	3.019−03
1	16	2.083+02	7.472+06	4.860−05	2	235	8.233+01	9.720+09	1.975−02
1	18	2.074+02	1.658+08	1.604−03	2	241	8.161+01	9.493+10	9.480−02
1	19	2.061+02	1.010+08	9.650−04	2	242	8.164+01	3.723+09	3.720−03
1	22	2.008+02	3.584+07	3.250−04	2	247	8.044+01	7.398+10	1.435−01
1	23	1.892+02	2.373+08	1.911−03	2	249	8.016+01	7.008+07	1.350−04
1	25	1.787+02	9.427+08	4.513−03	2	254	7.974+01	8.099+07	1.544−04
1	26	1.769+02	2.878+08	2.026−03	2	258	7.947+01	3.992+08	3.780−04
1	27	1.682+02	1.498+11	3.176−01	2	266	7.905+01	5.676+08	5.317−04
1	28	1.610+02	1.801+11	7.000−01	2	284	7.734+01	1.415+07	1.269−05
1	29	1.592+02	4.436+10	8.431−02	2	287	7.714+01	5.002+10	4.462−02
1	30	1.588+02	2.171+11	1.231+00	3	32	2.445+02	2.133+06	1.911−05
1	31	1.548+02	7.881+09	2.830−02	3	33	2.426+02	5.798+06	1.023−04
1	197	8.581+01	2.109+07	3.491−05	3	40	2.075+02	2.551+07	1.646−04
1	211	8.320+01	2.608+07	2.707−05	3	42	2.071+02	3.270+07	4.206−04
1	212	8.311+01	5.336+07	8.289−05	3	45	1.993+02	3.976+08	4.733−03
1	213	8.254+01	2.510+09	3.846−03	3	47	1.938+02	4.151+09	2.336−02
1	224	8.192+01	4.488+10	4.515−02	3	48	1.902+02	2.545+09	2.760−02
1	229	8.167+01	3.842+08	3.841−04	3	60	1.724+02	7.861+08	7.008−03
1	230	8.156+01	3.983+07	1.986−05	3	64	1.696+02	4.780+06	4.120−05
1	232	8.142+01	8.747+08	4.347−04	3	66	1.690+02	7.560+06	6.475−05
1	235	8.104+01	1.175+11	1.157−01	3	67	1.688+02	1.194+07	5.103−05
1	241	8.035+01	7.695+10	3.724−02	3	69	1.680+02	3.602+07	3.049−04
1	242	8.037+01	3.028+09	1.466−03	3	81	1.591+02	1.596+10	1.212−01
1	246	7.926+01	6.176+10	8.725−02	3	84	1.587+02	1.643+11	6.202−01
1	247	7.921+01	1.226+07	1.153−05	3	85	1.584+02	1.482+11	1.115+00
1	250	7.894+01	6.489+07	9.094−05	3	97	1.512+02	4.198+07	2.878−04
1	255	7.851+01	5.290+07	7.333−05	3	99	1.494+02	2.113+10	1.415−01
1	258	7.828+01	1.739+08	7.989−05	3	100	1.490+02	4.606+09	1.534−02
1	266	7.786+01	3.126+08	1.421−04	3	102	1.479+02	1.378+07	9.037−05
1	281	7.677+01	2.334+07	2.062−05	3	103	1.477+02	7.870+08	2.573−03
1	282	7.656+01	3.592+07	3.157−05	3	106	1.466+02	3.886+08	2.504−03
1	284	7.621+01	4.857+07	2.114−05	3	107	1.465+02	1.167+09	7.508−03
1	287	7.601+01	4.085+10	1.769−02	3	111	1.460+02	1.299+10	4.151−02
2	3	3.412+02	1.478+09	2.581−02	3	112	1.458+02	1.405+08	8.955−04
2	7	2.465+02	7.475+06	6.810−05	3	118	1.429+02	9.389+08	2.873−03
2	9	2.282+02	2.540+08	1.983−03	3	119	1.425+02	9.786+07	5.961−04
2	12	2.233+02	1.561+08	2.334−03	3	124	1.404+02	1.442+08	8.517−04
2	13	2.230+02	1.538+07	2.294−04	3	126	1.400+02	6.520+08	1.916−03
2	14	2.201+02	1.597+08	2.321−03	3	129	1.389+02	6.935+07	2.005−04
2	15	2.201+02	6.651+07	4.829−04	3	131	1.387+02	6.034+06	3.482−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
3	133	1.383+02	9.641+09	2.763−02	4	79	1.942+02	1.170+07	8.817−05
3	137	1.368+02	9.628+09	5.400−02	4	81	1.926+02	1.422+08	5.270−04
3	142	1.336+02	3.207+06	1.715−05	4	82	1.926+02	1.524+08	8.473−04
3	152	1.307+02	1.993+07	1.021−04	4	85	1.914+02	1.335+08	4.891−04
3	154	1.302+02	7.633+07	1.940−04	4	88	1.891+02	4.099+08	2.196−03
3	159	1.286+02	4.848+07	2.406−04	4	89	1.874+02	4.197+08	2.209−03
3	162	1.278+02	7.870+06	3.853−05	4	90	1.870+02	1.848+09	1.291−02
3	163	1.276+02	4.796+07	1.171−04	4	92	1.841+02	5.054+07	3.423−04
3	164	1.276+02	1.698+08	8.285−04	4	95	1.814+02	1.586+10	7.829−02
3	166	1.274+02	2.252+06	1.095−05	4	96	1.812+02	3.610+10	2.370−01
3	168	1.270+02	1.588+08	3.838−04	4	97	1.811+02	1.683+09	5.516−03
3	169	1.263+02	5.893+06	2.817−05	4	99	1.786+02	2.326+08	7.415−04
3	173	1.255+02	1.061+07	2.505−05	4	102	1.763+02	7.401+08	2.300−03
3	180	1.225+02	6.538+06	2.944−05	4	104	1.757+02	2.707+09	1.253−02
3	198	1.160+02	1.298+08	5.239−04	4	106	1.745+02	1.443+09	4.394−03
3	201	1.154+02	1.008+09	2.013−03	4	107	1.744+02	4.620+08	1.404−03
3	203	1.150+02	9.354+08	3.711−03	4	108	1.741+02	4.395+09	1.998−02
3	208	1.134+02	2.534+08	4.888−04	4	109	1.740+02	1.299+08	7.862−04
3	209	1.126+02	1.841+08	7.003−04	4	110	1.738+02	1.078+09	4.881−03
3	268	1.028+02	8.379+08	2.652−03	4	112	1.734+02	1.863+08	5.598−04
3	277	1.017+02	6.856+08	1.063−03	4	113	1.725+02	2.193+09	1.304−02
4	33	3.300+02	1.983+09	2.159−02	4	114	1.724+02	3.915+09	1.745−02
4	34	3.240+02	5.498+08	8.651−03	4	116	1.717+02	1.112+08	6.554−04
4	36	2.948+02	2.455+09	4.265−02	4	117	1.704+02	7.596+09	4.408−02
4	37	2.916+02	1.509+09	1.924−02	4	119	1.688+02	1.461+09	4.161−03
4	38	2.888+02	2.156+08	1.796−03	4	121	1.682+02	1.290+10	5.472−02
4	39	2.693+02	2.102+08	3.046−03	4	122	1.666+02	8.355+06	3.476−05
4	41	2.677+02	4.100+08	4.407−03	4	123	1.662+02	1.460+09	8.059−03
4	42	2.676+02	3.217+08	2.303−03	4	124	1.658+02	1.017+10	2.793−02
4	43	2.609+02	2.581+07	3.513−04	4	125	1.655+02	1.634+09	6.709−03
4	44	2.580+02	7.223+06	7.207−05	4	130	1.638+02	5.989+08	3.210−03
4	45	2.546+02	1.004+07	6.510−05	4	131	1.635+02	1.244+11	3.322−01
4	48	2.400+02	6.308+07	3.632−04	4	132	1.634+02	4.801+07	1.922−04
4	55	2.277+02	1.599+07	1.243−04	4	134	1.628+02	2.147+10	8.536−02
4	56	2.252+02	9.406+06	9.537−05	4	135	1.628+02	1.055+09	5.592−03
4	57	2.200+02	9.708+07	4.698−04	4	137	1.608+02	2.754+08	7.115−04
4	59	2.196+02	1.684+07	1.624−04	4	138	1.602+02	2.329+08	1.195−03
4	60	2.124+02	4.895+07	2.207−04	4	141	1.571+02	1.583+08	5.860−04
4	61	2.115+02	9.086+07	6.091−04	4	142	1.564+02	2.502+08	6.113−04
4	63	2.084+02	9.683+07	8.410−04	4	144	1.552+02	6.631+09	3.192−02
4	64	2.081+02	3.528+08	1.526−03	4	145	1.542+02	1.323+10	4.717−02
4	65	2.081+02	1.048+09	6.803−03	4	146	1.539+02	4.555+09	1.078−02
4	66	2.072+02	1.034+08	4.439−04	4	149	1.536+02	8.790+09	4.145−02
4	68	2.062+02	2.674+07	1.705−04	4	150	1.531+02	5.761+10	2.026−01
4	69	2.057+02	1.388+08	5.871−04	4	151	1.528+02	2.223+10	1.037−01
4	70	2.054+02	1.346+08	1.135−03	4	152	1.525+02	3.412+10	7.927−02
4	71	2.055+02	5.238+07	3.315−04	4	153	1.518+02	4.307+09	1.488−02
4	73	2.036+02	7.492+06	4.657−05	4	156	1.503+02	2.155+10	9.735−02
4	75	2.021+02	2.291+08	1.871−03	4	157	1.498+02	4.232+09	1.423−02
4	77	1.956+02	1.074+08	8.219−04	4	158	1.497+02	1.056+09	4.730−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
4	159	1.496+02	4.313+09	9.654−03	5	90	1.870+02	4.630+08	2.428−03
4	161	1.491+02	8.473+09	2.824−02	5	91	1.856+02	1.998+09	1.289−02
4	164	1.482+02	6.505+06	1.427−05	5	93	1.836+02	6.863+08	4.338−03
4	166	1.479+02	1.396+09	3.053−03	5	95	1.815+02	6.644+08	2.461−03
4	167	1.475+02	5.787+08	1.888−03	5	96	1.813+02	9.440+09	4.652−02
4	169	1.464+02	7.369+08	1.580−03	5	98	1.805+02	4.124+10	2.517−01
4	170	1.463+02	1.572+07	5.041−05	5	104	1.758+02	1.178+08	4.091−04
4	171	1.461+02	3.768+07	1.606−04	5	108	1.742+02	4.789+06	1.634−05
4	172	1.456+02	3.513+08	1.116−03	5	109	1.740+02	4.481+09	2.035−02
4	174	1.454+02	9.504+08	2.009−03	5	113	1.725+02	1.304+08	5.820−04
4	175	1.449+02	2.663+07	8.386−05	5	114	1.725+02	1.269+08	4.243−04
4	176	1.436+02	7.994+06	1.648−05	5	115	1.719+02	4.950+09	2.741−02
4	177	1.432+02	3.773+07	1.547−04	5	116	1.717+02	2.460+08	1.088−03
4	179	1.415+02	9.392+07	2.819−04	5	117	1.704+02	9.560+09	4.163−02
4	186	1.390+02	1.049+07	4.049−05	5	120	1.690+02	1.162+09	6.219−03
4	194	1.364+02	1.301+07	3.629−05	5	121	1.683+02	1.759+08	5.601−04
4	195	1.361+02	1.641+08	6.070−04	5	122	1.666+02	5.836+09	1.822−02
4	200	1.322+02	6.289+06	1.648−05	5	123	1.662+02	1.847+10	7.651−02
4	203	1.315+02	8.288+07	1.433−04	5	125	1.656+02	2.998+09	9.239−03
4	216	1.261+02	2.704+07	6.444−05	5	128	1.647+02	4.495+08	2.285−03
4	228	1.246+02	7.165+07	2.225−04	5	130	1.638+02	4.608+07	1.853−04
5	34	3.241+02	2.448+09	2.892−02	5	132	1.634+02	3.198+07	9.605−05
5	35	2.978+02	3.088+09	5.134−02	5	134	1.629+02	1.558+11	4.647−01
5	36	2.949+02	1.163+09	1.516−02	5	135	1.629+02	3.827+09	1.522−02
5	37	2.918+02	1.547+08	1.481−03	5	136	1.620+02	1.062+09	5.223−03
5	39	2.694+02	7.519+08	8.180−03	5	138	1.602+02	5.424+07	2.088−04
5	41	2.679+02	1.391+08	1.122−03	5	140	1.581+02	3.704+07	1.735−04
5	43	2.610+02	2.407+06	2.459−05	5	141	1.572+02	3.972+08	1.103−03
5	44	2.581+02	2.539+06	1.902−05	5	143	1.561+02	3.245+06	1.481−05
5	51	2.334+02	1.917+06	1.174−05	5	144	1.552+02	1.817+10	6.564−02
5	52	2.331+02	2.993+06	2.437−05	5	145	1.543+02	2.739+09	7.328−03
5	53	2.326+02	1.969+06	1.996−05	5	149	1.536+02	2.522+10	8.925−02
5	55	2.277+02	2.801+06	1.633−05	5	150	1.532+02	1.550+10	4.090−02
5	56	2.253+02	2.226+07	1.694−04	5	151	1.528+02	6.902+10	2.416−01
5	58	2.199+02	1.401+08	7.617−04	5	153	1.518+02	6.008+08	1.557−03
5	59	2.197+02	1.475+08	1.067−03	5	155	1.518+02	4.172+10	1.802−01
5	61	2.115+02	3.297+07	1.658−04	5	156	1.504+02	8.773+09	2.974−02
5	63	2.085+02	1.199+09	7.814−03	5	157	1.498+02	1.089+09	2.748−03
5	65	2.082+02	2.604+08	1.269−03	5	158	1.498+02	1.396+08	4.695−04
5	68	2.063+02	1.233+07	5.902−05	5	161	1.491+02	2.644+08	6.613−04
5	70	2.055+02	3.932+07	2.490−04	5	167	1.475+02	5.209+06	1.275−05
5	72	2.044+02	6.030+07	4.719−04	5	170	1.463+02	2.535+09	6.100−03
5	75	2.022+02	7.262+07	4.450−04	5	171	1.461+02	1.267+09	4.054−03
5	76	2.007+02	4.890+08	3.692−03	5	172	1.456+02	3.229+09	7.697−03
5	78	1.949+02	6.364+07	4.529−04	5	175	1.450+02	1.955+07	4.621−05
5	79	1.942+02	3.191+07	1.805−04	5	177	1.433+02	1.622+07	4.989−05
5	82	1.927+02	4.544+07	1.896−04	5	179	1.415+02	1.071+08	2.411−04
5	86	1.915+02	3.233+07	2.222−04	5	187	1.389+02	4.289+07	1.551−04
5	88	1.891+02	2.175+08	8.747−04	5	216	1.261+02	1.862+07	3.329−05
5	89	1.874+02	3.131+07	1.237−04	5	228	1.247+02	6.195+07	1.443−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
6	32	3.351+02	1.635+09	1.376−02	6	125	1.659+02	9.869+08	6.111−03
6	33	3.317+02	9.546+08	1.574−02	6	126	1.656+02	7.596+09	1.562−02
6	34	3.256+02	4.223+07	1.007−03	6	129	1.641+02	9.556+10	1.929−01
6	37	2.929+02	2.176+09	4.198−02	6	131	1.639+02	4.659+10	1.876−01
6	38	2.900+02	1.452+09	1.831−02	6	132	1.638+02	2.711+08	1.636−03
6	40	2.693+02	6.250+08	3.397−03	6	133	1.632+02	1.598+09	3.191−03
6	41	2.688+02	3.074+08	4.995−03	6	134	1.632+02	1.283+09	7.686−03
6	42	2.687+02	3.261+08	3.530−03	6	137	1.611+02	1.814+08	7.063−04
6	44	2.590+02	5.133+06	7.742−05	6	141	1.575+02	6.886+07	3.841−04
6	45	2.556+02	1.312+06	1.286−05	6	142	1.567+02	4.480+07	1.650−04
6	46	2.523+02	1.343+07	1.923−04	6	145	1.546+02	8.897+09	4.781−02
6	47	2.466+02	1.401+08	6.386−04	6	146	1.542+02	8.360+09	2.982−02
6	48	2.409+02	1.431+07	1.245−04	6	147	1.541+02	4.732+09	8.430−03
6	50	2.343+02	2.093+06	1.723−05	6	150	1.535+02	4.407+10	2.335−01
6	55	2.284+02	1.320+07	1.549−04	6	152	1.528+02	4.030+10	1.411−01
6	57	2.208+02	1.619+07	1.183−04	6	153	1.521+02	1.613+07	8.396−05
6	58	2.205+02	2.132+06	2.332−05	6	154	1.521+02	6.024+10	1.045−01
6	60	2.131+02	1.491+08	1.015−03	6	157	1.501+02	1.593+09	8.068−03
6	61	2.121+02	5.968+06	6.039−05	6	159	1.500+02	5.056+09	1.705−02
6	62	2.098+02	5.965+07	1.968−04	6	160	1.494+02	1.289+08	2.157−04
6	64	2.087+02	6.608+08	4.316−03	6	161	1.494+02	1.754+10	8.810−02
6	65	2.088+02	1.318+08	1.292−03	6	162	1.488+02	9.032+09	2.999−02
6	66	2.079+02	2.379+07	1.542−04	6	164	1.485+02	4.401+08	1.455−03
6	67	2.076+02	9.176+08	2.964−03	6	166	1.483+02	1.329+07	4.379−05
6	68	2.069+02	1.399+08	1.347−03	6	167	1.478+02	5.802+07	2.852−04
6	69	2.064+02	2.547+07	1.626−04	6	168	1.477+02	8.994+07	1.471−04
6	71	2.061+02	5.440+07	5.197−04	6	169	1.468+02	1.262+08	4.077−04
6	73	2.042+02	9.806+07	9.198−04	6	170	1.466+02	4.685+07	2.263−04
6	81	1.931+02	8.190+08	4.580−03	6	172	1.459+02	1.538+07	7.364−05
6	82	1.932+02	3.858+08	3.237−03	6	173	1.457+02	9.838+08	1.566−03
6	84	1.924+02	8.134+07	2.258−04	6	174	1.457+02	1.386+07	4.414−05
6	85	1.920+02	8.756+07	4.839−04	6	175	1.453+02	4.030+07	1.912−04
6	88	1.896+02	9.624+07	7.779−04	6	176	1.439+02	6.680+06	2.075−05
6	89	1.879+02	7.249+08	5.757−03	6	179	1.418+02	1.016+08	4.592−04
6	95	1.819+02	3.075+10	2.289−01	6	180	1.418+02	2.083+07	6.275−05
6	97	1.816+02	1.758+10	8.689−02	6	194	1.367+02	1.579+08	6.631−04
6	100	1.785+02	3.868+07	9.235−05	6	200	1.325+02	1.132+07	4.468−05
6	102	1.768+02	6.077+09	2.848−02	6	201	1.323+02	2.219+08	2.913−04
6	103	1.765+02	9.050+09	2.114−02	6	203	1.318+02	2.389+07	6.221−05
6	104	1.762+02	5.330+07	3.720−04	6	208	1.297+02	1.682+07	2.121−05
6	106	1.750+02	1.170+09	5.373−03	6	209	1.287+02	9.320+06	2.314−05
6	107	1.749+02	3.353+09	1.537−02	6	216	1.263+02	3.227+07	1.158−04
6	108	1.746+02	7.762+08	5.320−03	6	221	1.258+02	4.830+07	1.145−04
6	111	1.741+02	2.519+08	5.726−04	6	236	1.229+02	2.348+07	7.972−05
6	112	1.739+02	1.466+07	6.644−05	7	32	3.374+02	1.556+09	2.655−02
6	114	1.729+02	1.214+10	8.158−02	7	33	3.339+02	1.255+08	4.195−03
6	118	1.697+02	5.581+09	1.204−02	7	38	2.917+02	2.236+09	5.705−02
6	119	1.692+02	9.214+09	3.956−02	7	40	2.708+02	6.351+08	6.980−03
6	121	1.686+02	2.701+09	1.727−02	7	42	2.701+02	3.476+08	7.606−03
6	124	1.662+02	7.863+08	3.255−03	7	45	2.569+02	6.216+07	1.230−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
7	47	2.478+02	6.332+07	5.831−04	7	221	1.261+02	6.532+07	3.114−04
7	48	2.420+02	4.208+06	7.390−05	7	277	1.148+02	7.998+06	1.581−05
7	49	2.355+02	4.659+06	3.874−05	8	35	3.307+02	2.675+09	4.386−02
7	57	2.217+02	1.069+06	1.576−05	8	36	3.271+02	1.431+08	1.836−03
7	60	2.140+02	6.642+07	9.118−04	8	39	2.960+02	2.434+09	2.558−02
7	62	2.107+02	1.746+08	1.162−03	8	43	2.859+02	1.588+08	1.557−03
7	64	2.096+02	1.759+08	2.317−03	8	52	2.527+02	3.610+07	2.765−04
7	67	2.084+02	7.624+08	4.966−03	8	53	2.522+02	4.358+07	4.154−04
7	69	2.072+02	2.186+08	2.814−03	8	54	2.515+02	7.638+06	8.691−05
7	81	1.939+02	5.362+08	6.043−03	8	56	2.436+02	3.598+08	2.561−03
7	84	1.932+02	1.754+07	9.815−05	8	59	2.371+02	1.085+07	7.316−05
7	85	1.927+02	9.196+07	1.024−03	8	63	2.241+02	3.783+08	2.278−03
7	97	1.822+02	2.825+10	2.814−01	8	72	2.193+02	8.919+07	6.431−04
7	99	1.797+02	1.598+08	1.548−03	8	74	2.180+02	2.071+08	1.772−03
7	100	1.791+02	7.003+07	3.368−04	8	75	2.168+02	1.965+07	1.108−04
7	102	1.774+02	6.619+08	6.247−03	8	77	2.094+02	3.933+07	2.068−04
7	103	1.771+02	1.669+10	7.851−02	8	79	2.077+02	8.344+07	4.316−04
7	106	1.756+02	1.896+09	1.753−02	8	80	2.075+02	1.011+07	7.837−05
7	107	1.755+02	6.961+09	6.425−02	8	87	2.033+02	2.784+08	2.070−03
7	111	1.747+02	3.428+07	1.569−04	8	90	1.995+02	2.034+07	9.710−05
7	112	1.744+02	5.149+09	4.699−02	8	91	1.978+02	1.970+08	1.155−03
7	118	1.702+02	8.236+09	3.579−02	8	92	1.962+02	2.991+07	1.381−04
7	119	1.698+02	3.679+09	3.180−02	8	93	1.956+02	6.967+07	3.998−04
7	126	1.662+02	2.916+09	1.207−02	8	94	1.950+02	1.442+09	9.861−03
7	129	1.646+02	8.184+10	3.325−01	8	96	1.930+02	5.176+08	2.312−03
7	131	1.644+02	5.606+09	4.544−02	8	98	1.921+02	7.981+09	4.413−02
7	133	1.638+02	1.103+08	4.434−04	8	101	1.876+02	2.131+08	1.349−03
7	137	1.617+02	4.398+08	3.447−03	8	109	1.848+02	1.400+09	5.733−03
7	142	1.572+02	1.338+07	9.916−05	8	113	1.831+02	3.608+08	1.450−03
7	146	1.547+02	6.454+09	4.632−02	8	115	1.824+02	8.188+08	4.082−03
7	147	1.546+02	7.318+09	2.623−02	8	116	1.822+02	1.715+07	6.824−05
7	152	1.533+02	4.488+10	3.162−01	8	117	1.807+02	1.998+09	7.826−03
7	154	1.526+02	5.682+10	1.983−01	8	120	1.791+02	3.475+08	1.671−03
7	159	1.504+02	2.112+08	1.433−03	8	123	1.760+02	1.435+09	5.332−03
7	160	1.499+02	5.139+09	1.730−02	8	127	1.746+02	6.932+10	3.800−01
7	162	1.493+02	1.163+10	7.769−02	8	128	1.743+02	7.290+08	3.320−03
7	163	1.490+02	1.032+09	3.435−03	8	130	1.732+02	6.415+07	2.310−04
7	164	1.489+02	7.579+07	5.042−04	8	135	1.722+02	8.948+08	3.184−03
7	166	1.487+02	5.092+09	3.376−02	8	136	1.713+02	2.055+09	9.036−03
7	168	1.482+02	5.054+07	1.663−04	8	138	1.693+02	2.234+08	7.679−04
7	169	1.472+02	5.453+07	3.542−04	8	139	1.686+02	6.711+09	3.434−02
7	173	1.461+02	2.069+08	6.624−04	8	143	1.646+02	1.062+08	4.315−04
7	174	1.461+02	3.357+07	2.150−04	8	144	1.637+02	1.222+11	3.928−01
7	176	1.444+02	2.553+06	1.595−05	8	148	1.622+02	3.446+08	1.630−03
7	180	1.422+02	3.004+07	1.820−04	8	149	1.619+02	1.873+10	5.890−02
7	198	1.335+02	2.947+06	1.574−05	8	151	1.610+02	6.817+09	2.120−02
7	201	1.327+02	2.291+08	6.046−04	8	155	1.599+02	1.726+11	6.614−01
7	203	1.321+02	6.975+07	3.652−04	8	156	1.583+02	1.974+10	5.933−02
7	208	1.301+02	4.114+07	1.043−04	8	158	1.576+02	1.381+08	4.115−04
7	209	1.290+02	2.093+07	1.045−04	8	165	1.557+02	7.128+08	2.592−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
8	171	1.536+02	1.042+08	2.947−04	9	166	1.562+02	8.580+09	6.281−02
8	177	1.504+02	4.852+07	1.317−04	9	168	1.557+02	5.512+09	2.003−02
8	187	1.457+02	1.765+09	5.615−03	9	169	1.546+02	1.608+10	1.153−01
8	195	1.426+02	2.298+08	5.601−04	9	173	1.534+02	1.324+08	4.671−04
8	228	1.301+02	2.281+07	4.627−05	9	174	1.534+02	5.705+09	4.028−02
9	32	3.789+02	3.331+07	7.170−04	9	176	1.515+02	1.294+08	8.905−04
9	33	3.745+02	1.898+07	7.982−04	9	180	1.491+02	2.159+09	1.438−02
9	38	3.222+02	1.178+07	3.669−04	9	198	1.396+02	1.713+08	1.000−03
9	40	2.969+02	1.001+08	1.323−03	9	201	1.387+02	2.788+10	8.035−02
9	42	2.961+02	7.114+07	1.871−03	9	203	1.381+02	8.372+09	4.786−02
9	45	2.804+02	2.096+09	4.939−02	9	208	1.358+02	5.661+09	1.565−02
9	47	2.696+02	2.476+09	2.698−02	9	209	1.346+02	2.250+09	1.223−02
9	48	2.627+02	1.373+08	2.840−03	9	221	1.315+02	7.263+09	3.764−02
9	49	2.550+02	3.030+06	2.954−05	9	268	1.208+02	7.287+07	3.186−04
9	50	2.549+02	2.684+06	5.230−05	9	277	1.193+02	4.965+08	1.059−03
9	60	2.300+02	1.736+09	2.753−02	10	34	3.718+02	4.950+06	7.694−05
9	64	2.249+02	1.253+08	1.901−03	10	35	3.376+02	4.362+08	9.318−03
9	66	2.240+02	1.126+08	1.694−03	10	36	3.339+02	1.986+09	3.319−02
9	67	2.236+02	9.634+06	7.220−05	10	37	3.299+02	2.235+08	2.734−03
9	69	2.222+02	3.143+08	4.653−03	10	39	3.015+02	1.051+07	1.432−04
9	81	2.069+02	9.236+09	1.186−01	10	41	2.996+02	2.504+09	2.527−02
9	84	2.061+02	2.598+08	1.655−03	10	43	2.911+02	5.355+07	6.803−04
9	85	2.056+02	8.665+08	1.099−02	10	44	2.874+02	1.292+07	1.201−04
9	97	1.937+02	1.369+09	1.541−02	10	46	2.793+02	2.046+06	1.794−05
9	99	1.909+02	9.535+06	1.041−04	10	51	2.571+02	5.788+07	4.302−04
9	100	1.902+02	4.546+07	2.465−04	10	52	2.567+02	1.918+07	1.895−04
9	102	1.883+02	2.776+09	2.950−02	10	55	2.503+02	3.275+08	2.307−03
9	103	1.880+02	2.555+08	1.353−03	10	56	2.474+02	6.777+06	6.216−05
9	106	1.862+02	3.466+07	3.604−04	10	58	2.408+02	7.515+06	4.902−05
9	107	1.861+02	1.019+09	1.058−02	10	63	2.272+02	8.892+07	6.885−04
9	111	1.853+02	1.121+10	5.770−02	10	65	2.269+02	2.298+08	1.330−03
9	112	1.849+02	1.926+09	1.976−02	10	68	2.246+02	1.781+06	1.011−05
9	118	1.802+02	3.906+08	1.902−03	10	70	2.237+02	1.238+08	9.288−04
9	119	1.797+02	1.286+08	1.246−03	10	72	2.223+02	8.911+07	8.254−04
9	124	1.763+02	2.718+08	2.533−03	10	73	2.215+02	3.472+07	1.916−04
9	126	1.757+02	3.067+09	1.419−02	10	75	2.198+02	2.242+06	1.624−05
9	129	1.739+02	2.280+08	1.034−03	10	76	2.181+02	8.618+07	7.680−04
9	131	1.737+02	1.874+08	1.695−03	10	77	2.121+02	4.854+07	3.275−04
9	133	1.730+02	3.617+10	1.622−01	10	78	2.111+02	3.313+07	2.768−04
9	137	1.706+02	1.597+10	1.395−01	10	79	2.104+02	4.458+07	2.958−04
9	142	1.657+02	2.962+09	2.438−02	10	82	2.086+02	4.364+07	2.134−04
9	146	1.629+02	3.823+07	3.042−04	10	86	2.072+02	3.213+08	2.584−03
9	147	1.628+02	6.000+06	2.384−05	10	88	2.044+02	7.932+07	3.726−04
9	152	1.613+02	2.695+09	2.103−02	10	90	2.020+02	2.810+06	1.719−05
9	154	1.606+02	1.371+10	5.300−02	10	91	2.003+02	1.645+09	1.236−02
9	159	1.582+02	1.968+10	1.476−01	10	92	1.986+02	1.191+08	7.040−04
9	160	1.576+02	7.393+10	2.752−01	10	93	1.980+02	8.696+08	6.391−03
9	162	1.569+02	1.441+10	1.063−01	10	95	1.955+02	7.826+08	3.364−03
9	163	1.566+02	9.033+09	3.320−02	10	96	1.953+02	5.139+09	2.939−02
9	164	1.565+02	2.253+09	1.655−02	10	98	1.944+02	5.144+08	3.642−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
10	104	1.889+02	9.846+07	3.950−04	11	36	3.393+02	5.863+08	1.350−02
10	108	1.871+02	7.206+08	2.835−03	11	37	3.352+02	1.959+09	3.300−02
10	109	1.869+02	6.051+08	3.169−03	11	38	3.314+02	3.035+08	3.330−03
10	110	1.867+02	4.689+07	1.837−04	11	39	3.060+02	4.226+06	7.907−05
10	113	1.851+02	3.489+08	1.793−03	11	41	3.040+02	8.928+07	1.237−03
10	114	1.851+02	1.436+09	5.533−03	11	42	3.038+02	2.356+09	2.173−02
10	115	1.844+02	1.293+07	8.244−05	11	44	2.915+02	1.062+07	1.353−04
10	116	1.842+02	2.896+08	1.474−03	11	46	2.831+02	5.317+06	6.387−05
10	117	1.828+02	4.434+08	2.220−03	11	48	2.687+02	2.092+06	1.510−05
10	120	1.811+02	3.422+08	2.104−03	11	50	2.606+02	6.933+07	4.705−04
10	121	1.802+02	2.779+09	1.015−02	11	51	2.603+02	3.198+06	3.250−05
10	122	1.784+02	3.740+08	1.338−03	11	52	2.599+02	1.746+06	2.358−05
10	123	1.779+02	4.268+06	2.026−05	11	56	2.503+02	6.347+06	7.950−05
10	125	1.772+02	6.374+08	2.250−03	11	57	2.439+02	1.907+06	1.134−05
10	128	1.762+02	6.595+10	3.837−01	11	60	2.346+02	2.517+07	1.384−04
10	130	1.751+02	4.475+09	2.058−02	11	61	2.334+02	3.956+06	3.232−05
10	132	1.747+02	1.007+08	3.458−04	11	63	2.298+02	4.094+06	4.320−05
10	134	1.741+02	5.383+07	1.834−04	11	64	2.293+02	1.059+08	5.567−04
10	135	1.741+02	2.469+07	1.122−04	11	65	2.294+02	4.695+07	3.704−04
10	136	1.731+02	3.681+09	2.067−02	11	68	2.271+02	6.535+07	5.052−04
10	138	1.711+02	8.318+08	3.650−03	11	69	2.265+02	6.523+07	3.344−04
10	140	1.686+02	7.097+08	3.783−03	11	70	2.261+02	1.898+07	1.940−04
10	141	1.676+02	4.668+09	1.474−02	11	71	2.262+02	1.999+07	1.533−04
10	143	1.664+02	4.673+08	2.423−03	11	75	2.221+02	8.514+07	8.395−04
10	144	1.654+02	8.471+09	3.473−02	11	77	2.143+02	2.817+07	2.586−04
10	145	1.643+02	1.095+11	3.323−01	11	81	2.106+02	3.381+06	1.499−05
10	149	1.636+02	4.386+09	1.760−02	11	85	2.093+02	4.139+07	1.812−04
10	150	1.631+02	1.348+10	4.030−02	11	88	2.064+02	2.424+07	1.548−04
10	151	1.626+02	5.355+09	2.124−02	11	89	2.045+02	7.260+07	4.550−04
10	153	1.615+02	6.526+09	1.915−02	11	90	2.040+02	2.415+09	2.009−02
10	155	1.615+02	5.359+09	2.619−02	11	92	2.005+02	2.746+08	2.207−03
10	156	1.599+02	1.436+11	5.502−01	11	95	1.974+02	4.116+09	2.405−02
10	157	1.592+02	1.830+09	5.218−03	11	96	1.972+02	8.256+08	6.415−03
10	158	1.592+02	3.644+09	1.384−02	11	97	1.970+02	6.387+08	2.477−03
10	161	1.585+02	3.090+10	8.729−02	11	99	1.940+02	5.363+07	2.017−04
10	165	1.573+02	2.079+08	9.633−04	11	102	1.914+02	1.348+08	4.933−04
10	167	1.567+02	2.167+08	5.982−04	11	104	1.906+02	1.679+08	9.148−04
10	170	1.553+02	2.229+09	6.042−03	11	106	1.892+02	2.597+08	9.293−04
10	171	1.550+02	6.528+08	2.353−03	11	107	1.891+02	7.418+08	2.651−03
10	172	1.545+02	2.553+07	6.852−05	11	108	1.888+02	4.558+08	2.435−03
10	175	1.538+02	3.537+07	9.406−05	11	109	1.886+02	1.007+07	7.163−05
10	177	1.519+02	3.224+07	1.115−04	11	110	1.884+02	3.022+08	1.608−03
10	179	1.499+02	2.341+08	5.916−04	11	112	1.879+02	7.295+08	2.574−03
10	186	1.471+02	3.255+09	1.056−02	11	113	1.868+02	2.174+08	1.517−03
10	194	1.442+02	3.355+07	7.845−05	11	114	1.868+02	1.195+09	6.251−03
10	195	1.438+02	1.738+08	5.389−04	11	117	1.844+02	1.203+08	8.173−04
10	200	1.396+02	5.250+07	1.150−04	11	119	1.825+02	2.683+09	8.932−03
10	216	1.327+02	2.652+07	5.253−05	11	121	1.818+02	2.994+08	1.484−03
10	228	1.311+02	1.045+09	2.693−03	11	123	1.795+02	6.434+08	4.143−03
11	33	3.869+02	1.587+06	2.374−05	11	124	1.790+02	9.988+07	3.197−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
11	130	1.766+02	6.517+10	4.064−01	12	42	3.048+02	5.226+08	7.280−03
11	131	1.763+02	2.269+07	7.049−05	12	44	2.924+02	5.212+08	1.002−02
11	132	1.762+02	6.076+09	2.829−02	12	45	2.881+02	1.599+07	1.990−04
11	135	1.756+02	4.894+08	3.016−03	12	46	2.839+02	4.335+08	7.860−03
11	137	1.732+02	1.189+08	3.563−04	12	47	2.768+02	7.455+08	4.280−03
11	138	1.725+02	1.612+08	9.589−04	12	48	2.695+02	2.272+09	2.475−02
11	141	1.689+02	7.318+08	3.131−03	12	49	2.614+02	7.516+06	3.851−05
11	142	1.680+02	4.642+08	1.310−03	12	50	2.613+02	8.860+06	9.070−05
11	144	1.667+02	3.035+08	1.686−03	12	51	2.611+02	1.051+07	1.611−04
11	145	1.656+02	1.788+10	7.353−02	12	60	2.352+02	1.238+08	1.027−03
11	146	1.652+02	1.102+11	3.007−01	12	61	2.340+02	1.342+09	1.654−02
11	149	1.649+02	3.908+08	2.123−03	12	64	2.299+02	1.334+06	1.056−05
11	150	1.644+02	1.072+10	4.343−02	12	65	2.300+02	4.128+07	4.909−04
11	151	1.639+02	3.035+08	1.630−03	12	67	2.285+02	1.214+08	4.750−04
11	152	1.636+02	1.141+10	3.051−02	12	68	2.276+02	5.134+07	5.983−04
11	153	1.628+02	5.137+09	2.041−02	12	69	2.271+02	3.846+07	2.973−04
11	156	1.611+02	1.339+10	6.948−02	12	73	2.245+02	1.928+08	2.184−03
11	157	1.604+02	5.287+08	2.041−03	12	81	2.111+02	4.752+08	3.175−03
11	158	1.604+02	3.216+07	1.654−04	12	82	2.112+02	3.440+08	3.449−03
11	159	1.603+02	1.294+10	3.324−02	12	85	2.098+02	6.678+08	4.405−03
11	161	1.597+02	1.275+11	4.875−01	12	88	2.069+02	9.320+09	8.971−02
11	162	1.590+02	3.062+10	7.737−02	12	89	2.049+02	1.741+08	1.644−03
11	164	1.586+02	2.563+08	6.448−04	12	95	1.978+02	9.812+08	8.635−03
11	166	1.584+02	3.244+09	8.132−03	12	97	1.974+02	7.475+08	4.367−03
11	167	1.579+02	1.744+09	6.518−03	12	99	1.944+02	6.551+09	3.713−02
11	169	1.567+02	2.132+07	5.230−05	12	100	1.937+02	2.819+09	7.931−03
11	170	1.564+02	1.317+07	4.831−05	12	102	1.918+02	1.351+09	7.449−03
11	171	1.562+02	6.897+08	3.364−03	12	103	1.914+02	3.979+06	1.093−05
11	174	1.555+02	9.941+08	2.402−03	12	104	1.910+02	3.055+09	2.507−02
11	175	1.549+02	1.282+09	4.616−03	12	106	1.896+02	2.032+06	1.095−05
11	176	1.534+02	6.747+07	1.588−04	12	107	1.895+02	2.694+08	1.450−03
11	177	1.530+02	1.168+08	5.465−04	12	108	1.892+02	1.624+08	1.307−03
11	180	1.510+02	1.664+08	3.791−04	12	110	1.888+02	2.742+08	2.198−03
11	186	1.481+02	2.448+07	1.074−04	12	111	1.886+02	4.557+08	1.215−03
11	194	1.452+02	2.513+08	7.946−04	12	112	1.883+02	1.513+07	8.043−05
11	198	1.412+02	1.497+08	2.984−04	12	114	1.871+02	1.405+09	1.107−02
11	200	1.405+02	3.086+08	9.134−04	12	118	1.834+02	3.508+08	8.844−04
11	203	1.397+02	2.227+08	4.346−04	12	119	1.829+02	3.850+08	1.930−03
11	209	1.362+02	2.368+08	4.392−04	12	121	1.822+02	1.294+09	9.657−03
11	216	1.336+02	6.639+07	1.776−04	12	122	1.803+02	3.334+07	2.436−04
11	228	1.320+02	1.171+08	4.076−04	12	124	1.793+02	1.693+08	8.162−04
11	236	1.297+02	1.147+08	2.893−04	12	126	1.787+02	1.679+08	4.020−04
11	268	1.220+02	4.572+07	6.803−05	12	129	1.769+02	1.004+08	2.355−04
12	32	3.933+02	9.362+06	1.085−04	12	131	1.766+02	2.889+08	1.351−03
12	33	3.885+02	3.663+07	8.289−04	12	132	1.766+02	1.791+10	1.255−01
12	34	3.802+02	1.899+07	6.172−04	12	133	1.759+02	5.220+09	1.210−02
12	37	3.364+02	1.365+08	3.474−03	12	134	1.759+02	1.720+08	1.196−03
12	38	3.325+02	6.474+08	1.073−02	12	137	1.735+02	2.961+10	1.336−01
12	40	3.056+02	2.690+08	1.884−03	12	141	1.693+02	3.456+09	2.226−02
12	41	3.050+02	4.482+08	9.375−03	12	142	1.684+02	4.033+09	1.714−02

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
12	146	1.655+02	1.167+10	4.794−02	13	50	2.617+02	1.126+06	1.156−05
12	147	1.654+02	3.592+10	7.366−02	13	55	2.544+02	2.940+08	4.278−03
12	150	1.646+02	1.251+10	7.629−02	13	60	2.355+02	5.263+08	4.375−03
12	152	1.639+02	9.476+08	3.815−03	13	61	2.343+02	3.398+08	4.195−03
12	153	1.631+02	2.558+08	1.530−03	13	62	2.315+02	1.332+07	5.351−05
12	154	1.631+02	1.244+10	2.479−02	13	66	2.292+02	6.335+06	4.988−05
12	157	1.607+02	1.502+09	8.723−03	13	67	2.288+02	1.436+08	5.635−04
12	159	1.606+02	8.601+09	3.327−02	13	68	2.279+02	2.162+07	2.526−04
12	160	1.600+02	8.204+09	1.574−02	13	69	2.273+02	8.399+07	6.508−04
12	161	1.600+02	1.638+09	9.428−03	13	73	2.247+02	2.407+06	2.734−05
12	162	1.593+02	1.795+10	6.828−02	13	81	2.114+02	1.105+09	7.404−03
12	163	1.590+02	1.070+10	2.028−02	13	82	2.114+02	1.779+09	1.788−02
12	164	1.589+02	3.626+09	1.373−02	13	84	2.105+02	5.455+08	1.812−03
12	166	1.586+02	4.053+10	1.529−01	13	85	2.100+02	1.998+08	1.321−03
12	167	1.581+02	2.338+09	1.315−02	13	88	2.071+02	1.509+09	1.455−02
12	168	1.580+02	9.550+10	1.788−01	13	89	2.051+02	1.306+09	1.236−02
12	169	1.569+02	1.525+10	5.629−02	13	95	1.980+02	1.830+08	1.614−03
12	170	1.567+02	2.431+10	1.343−01	13	97	1.976+02	4.195+09	2.456−02
12	172	1.559+02	4.106+07	2.245−04	13	99	1.946+02	1.582+09	8.984−03
12	173	1.557+02	6.322+06	1.149−05	13	100	1.939+02	1.448+09	4.084−03
12	174	1.557+02	3.021+09	1.099−02	13	102	1.919+02	1.033+08	5.705−04
12	175	1.552+02	4.790+09	2.595−02	13	103	1.916+02	1.206+09	3.320−03
12	176	1.537+02	2.812+09	9.961−03	13	104	1.912+02	6.460+08	5.312−03
12	179	1.513+02	5.128+09	2.638−02	13	106	1.898+02	2.163+08	1.169−03
12	180	1.512+02	4.572+09	1.568−02	13	107	1.897+02	1.342+07	7.236−05
12	194	1.454+02	7.553+08	3.593−03	13	108	1.894+02	9.988+08	8.053−03
12	198	1.414+02	6.330+09	1.898−02	13	110	1.890+02	1.221+09	9.806−03
12	200	1.407+02	1.948+09	8.674−03	13	111	1.888+02	2.546+09	6.804−03
12	201	1.405+02	6.830+09	1.011−02	13	112	1.885+02	3.340+09	1.779−02
12	203	1.399+02	1.889+10	5.545−02	13	114	1.873+02	7.285+08	5.749−03
12	208	1.376+02	4.640+09	6.584−03	13	118	1.836+02	3.651+09	9.223−03
12	209	1.364+02	3.491+09	9.739−03	13	119	1.831+02	2.682+08	1.348−03
12	216	1.338+02	8.336+09	3.354−02	13	121	1.824+02	7.605+06	5.688−05
12	221	1.332+02	8.989+08	2.389−03	13	122	1.804+02	1.632+09	1.195−02
12	236	1.299+02	7.278+08	2.762−03	13	124	1.795+02	9.529+07	4.602−04
12	268	1.222+02	3.188+08	7.135−04	13	125	1.792+02	3.954+08	2.856−03
12	277	1.207+02	5.130+07	5.599−05	13	126	1.789+02	1.172+08	2.812−04
13	33	3.894+02	2.116+07	4.810−04	13	129	1.771+02	6.092+08	1.432−03
13	34	3.810+02	6.174+06	2.015−04	13	131	1.768+02	2.648+08	1.241−03
13	37	3.370+02	2.689+08	6.868−03	13	132	1.767+02	4.117+10	2.891−01
13	38	3.332+02	1.549+09	2.578−02	13	133	1.761+02	1.482+10	3.444−02
13	40	3.061+02	2.011+09	1.412−02	13	134	1.761+02	1.167+08	8.137−04
13	41	3.055+02	9.647+07	2.025−03	13	137	1.736+02	7.296+09	3.299−02
13	42	3.053+02	5.838+06	8.160−05	13	141	1.694+02	2.946+09	1.901−02
13	44	2.929+02	2.813+08	5.425−03	13	142	1.685+02	9.285+06	3.953−05
13	45	2.886+02	1.068+08	1.333−03	13	145	1.661+02	7.639+08	4.737−03
13	46	2.844+02	6.086+06	1.107−04	13	146	1.657+02	1.373+10	5.648−02
13	47	2.772+02	1.152+09	6.634−03	13	147	1.656+02	9.610+10	1.974−01
13	48	2.699+02	8.147+08	8.898−03	13	150	1.648+02	9.708+08	5.929−03
13	49	2.618+02	5.594+07	2.875−04	13	152	1.640+02	1.223+10	4.933−02

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
13	153	1.632+02	5.273+06	3.159−05	14	60	2.388+02	2.029+09	1.734−02
13	154	1.632+02	6.121+09	1.222−02	14	61	2.376+02	1.902+08	2.414−03
13	157	1.609+02	7.822+08	4.553−03	14	64	2.334+02	5.816+08	4.748−03
13	159	1.608+02	1.024+08	3.969−04	14	65	2.334+02	6.732+07	8.249−04
13	160	1.601+02	9.864+09	1.896−02	14	66	2.323+02	2.783+07	2.252−04
13	161	1.601+02	1.514+10	8.727−02	14	67	2.319+02	4.545+07	1.833−04
13	162	1.594+02	1.100+11	4.190−01	14	68	2.311+02	6.260+07	7.515−04
13	163	1.591+02	1.309+10	2.485−02	14	69	2.304+02	4.685+07	3.729−04
13	164	1.591+02	1.592+09	6.039−03	14	71	2.301+02	8.553+07	1.018−03
13	166	1.588+02	2.481+07	9.377−05	14	73	2.278+02	1.367+07	1.595−04
13	167	1.583+02	1.684+09	9.485−03	14	81	2.140+02	3.185+09	2.187−02
13	168	1.582+02	1.241+10	2.328−02	14	82	2.141+02	2.003+09	2.064−02
13	169	1.571+02	9.910+07	3.665−04	14	84	2.132+02	9.206+08	3.136−03
13	170	1.569+02	8.007+09	4.430−02	14	85	2.126+02	8.445+07	5.725−04
13	172	1.561+02	1.054+07	5.776−05	14	88	2.097+02	1.262+09	1.248−02
13	173	1.559+02	9.742+06	1.774−05	14	89	2.077+02	1.314+09	1.274−02
13	174	1.559+02	4.412+07	1.607−04	14	95	2.004+02	1.072+07	9.680−05
13	175	1.553+02	1.391+10	7.550−02	14	99	1.969+02	3.105+07	1.805−04
13	176	1.538+02	4.568+08	1.621−03	14	100	1.962+02	3.249+08	9.373−04
13	179	1.514+02	5.375+09	2.770−02	14	102	1.941+02	2.164+08	1.223−03
13	180	1.513+02	1.506+09	5.173−03	14	103	1.938+02	6.990+08	1.969−03
13	194	1.456+02	1.660+09	7.910−03	14	104	1.934+02	5.369+08	4.517−03
13	198	1.416+02	1.540+07	4.627−05	14	106	1.920+02	1.024+09	5.660−03
13	200	1.408+02	1.418+09	6.324−03	14	107	1.918+02	2.890+09	1.594−02
13	201	1.406+02	1.189+10	1.764−02	14	108	1.915+02	3.596+09	2.965−02
13	203	1.401+02	6.875+09	2.021−02	14	110	1.911+02	3.175+09	2.607−02
13	208	1.377+02	5.644+08	8.022−04	14	111	1.909+02	4.520+09	1.235−02
13	209	1.365+02	2.037+09	5.692−03	14	112	1.906+02	4.448+07	2.423−04
13	216	1.339+02	3.538+09	1.426−02	14	114	1.894+02	3.988+06	3.218−05
13	221	1.333+02	1.510+09	4.021−03	14	118	1.856+02	3.200+07	8.261−05
13	236	1.300+02	1.297+07	4.928−05	14	119	1.851+02	3.655+07	1.876−04
13	268	1.223+02	1.073+08	2.404−04	14	121	1.844+02	1.838+09	1.405−02
13	277	1.207+02	1.430+08	1.562−04	14	122	1.824+02	5.856+09	4.381−02
14	32	4.035+02	7.376+07	9.002−04	14	124	1.814+02	2.936+08	1.449−03
14	33	3.985+02	7.817+05	1.861−05	14	125	1.811+02	5.823+09	4.296−02
14	34	3.897+02	1.541+07	5.264−04	14	126	1.808+02	7.473+08	1.831−03
14	37	3.439+02	1.135+08	3.018−03	14	129	1.789+02	2.763+09	6.632−03
14	38	3.398+02	1.980+08	3.428−03	14	131	1.787+02	4.874+07	2.333−04
14	40	3.118+02	3.236+08	2.358−03	14	132	1.786+02	5.723+09	4.104−02
14	41	3.111+02	2.284+08	4.972−03	14	133	1.779+02	2.528+10	5.998−02
14	42	3.109+02	8.861+07	1.284−03	14	134	1.779+02	9.476+07	6.746−04
14	44	2.980+02	9.649+07	1.927−03	14	137	1.754+02	1.779+09	8.208−03
14	45	2.936+02	4.098+08	5.295−03	14	141	1.711+02	9.346+08	6.155−03
14	46	2.892+02	5.162+08	9.711−03	14	142	1.702+02	2.048+09	8.897−03
14	47	2.818+02	3.718+09	2.213−02	14	145	1.677+02	1.125+09	7.115−03
14	48	2.743+02	1.139+08	1.284−03	14	146	1.673+02	5.312+08	2.229−03
14	49	2.659+02	1.563+07	8.285−05	14	147	1.672+02	1.215+10	2.545−02
14	50	2.658+02	4.028+06	4.266−05	14	150	1.664+02	1.360+09	8.468−03
14	51	2.655+02	1.457+06	2.310−05	14	152	1.656+02	1.040+10	4.277−02
14	55	2.583+02	1.482+09	2.223−02	14	153	1.648+02	2.012+10	1.229−01

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
14	154	1.648+02	1.488+08	3.030−04	15	99	1.969+02	3.406+06	3.961−05
14	157	1.624+02	2.978+07	1.767−04	15	100	1.962+02	2.496+07	1.441−04
14	159	1.623+02	1.172+10	4.628−02	15	102	1.942+02	1.528+09	1.728−02
14	160	1.616+02	7.335+10	1.437−01	15	103	1.939+02	1.069+10	6.022−02
14	161	1.617+02	9.094+08	5.344−03	15	106	1.920+02	9.090+08	1.005−02
14	162	1.609+02	9.873+08	3.833−03	15	107	1.919+02	4.824+09	5.325−02
14	163	1.606+02	1.135+08	2.195−04	15	111	1.910+02	1.025+08	5.603−04
14	164	1.606+02	1.103+08	4.264−04	15	112	1.907+02	5.387+08	5.872−03
14	166	1.603+02	2.325+10	8.952−02	15	118	1.856+02	1.892+09	9.778−03
14	167	1.598+02	1.124+09	6.455−03	15	119	1.851+02	2.972+09	3.054−02
14	168	1.597+02	6.093+10	1.164−01	15	124	1.814+02	4.297+08	4.242−03
14	169	1.585+02	5.170+10	1.948−01	15	126	1.809+02	6.397+08	3.137−03
14	170	1.583+02	2.167+08	1.221−03	15	129	1.790+02	6.494+07	3.119−04
14	172	1.575+02	2.023+09	1.129−02	15	131	1.787+02	8.948+08	8.570−03
14	173	1.573+02	2.729+08	5.063−04	15	133	1.779+02	1.731+09	8.220−03
14	174	1.573+02	1.864+08	6.918−04	15	137	1.755+02	3.851+07	3.556−04
14	175	1.568+02	1.747+10	9.656−02	15	142	1.702+02	1.133+09	9.845−03
14	176	1.552+02	4.086+09	1.476−02	15	146	1.673+02	5.286+09	4.439−02
14	179	1.528+02	7.426+09	3.897−02	15	147	1.672+02	9.673+09	4.056−02
14	180	1.527+02	4.534+10	1.585−01	15	152	1.657+02	2.649+10	2.180−01
14	194	1.468+02	2.692+10	1.305−01	15	154	1.649+02	5.048+10	2.057−01
14	198	1.428+02	4.034+09	1.232−02	15	159	1.623+02	2.663+09	2.104−02
14	200	1.420+02	3.114+07	1.412−04	15	160	1.617+02	5.572+09	2.184−02
14	201	1.418+02	4.794+09	7.228−03	15	162	1.610+02	3.795+09	2.949−02
14	208	1.388+02	1.717+09	2.480−03	15	164	1.606+02	1.168+08	9.031−04
14	209	1.376+02	3.577+07	1.016−04	15	166	1.603+02	9.062+09	6.983−02
14	216	1.349+02	5.932+07	2.429−04	15	168	1.597+02	5.853+09	2.238−02
14	221	1.343+02	6.080+06	1.644−05	15	169	1.586+02	5.336+10	4.023−01
14	236	1.310+02	6.733+08	2.598−03	15	173	1.574+02	2.040+10	7.573−02
14	268	1.231+02	7.793+07	1.772−04	15	174	1.574+02	3.414+10	2.535−01
14	277	1.216+02	1.897+07	2.103−05	15	176	1.553+02	4.786+09	3.460−02
15	32	4.038+02	7.182+07	1.755−03	15	180	1.527+02	4.906+07	3.432−04
15	33	3.988+02	2.708+08	1.291−02	15	198	1.428+02	9.660+06	5.904−05
15	38	3.400+02	1.945+06	6.743−05	15	201	1.419+02	9.451+08	2.851−03
15	40	3.119+02	2.057+09	3.000−02	15	203	1.412+02	4.376+07	2.618−04
15	42	3.111+02	1.091+09	3.165−02	15	208	1.389+02	2.391+08	6.912−04
15	45	2.937+02	5.716+07	1.478−03	15	221	1.343+02	9.688+07	5.242−04
15	47	2.819+02	1.613+08	1.921−03	15	268	1.232+02	5.263+07	2.394−04
15	48	2.744+02	1.295+06	2.923−05	15	277	1.216+02	6.423+06	1.424−05
15	49	2.660+02	9.390+07	9.962−04	16	32	4.145+02	1.666+08	2.146−03
15	50	2.659+02	3.743+07	7.934−04	16	33	4.093+02	5.032+07	1.264−03
15	57	2.486+02	4.348+06	8.057−05	16	34	4.000+02	2.138+08	7.694−03
15	60	2.389+02	1.880+07	3.217−04	16	38	3.476+02	1.705+07	3.088−04
15	62	2.348+02	2.753+07	2.275−04	16	40	3.183+02	2.254+08	1.712−03
15	64	2.334+02	8.308+08	1.357−02	16	41	3.176+02	1.184+09	2.686−02
15	66	2.324+02	5.314+07	8.605−04	16	42	3.175+02	9.627+08	1.454−02
15	67	2.320+02	2.250+09	1.816−02	16	44	3.040+02	1.479+08	3.074−03
15	69	2.305+02	2.684+08	4.276−03	16	45	2.994+02	2.498+07	3.356−04
15	81	2.141+02	1.539+07	2.115−04	16	46	2.949+02	4.678+08	9.145−03
15	97	2.000+02	1.164+08	1.396−03	16	47	2.871+02	4.516+06	2.790−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
16	48	2.793+02	8.966+08	1.049−02	16	145	1.696+02	9.477+09	6.128−02
16	49	2.707+02	9.251+06	5.080−05	16	146	1.692+02	8.312+09	3.566−02
16	50	2.705+02	3.072+07	3.370−04	16	147	1.691+02	1.080+09	2.313−03
16	51	2.703+02	2.754+07	4.525−04	16	150	1.683+02	1.991+10	1.268−01
16	55	2.628+02	1.551+08	2.407−03	16	152	1.674+02	6.395+09	2.688−02
16	58	2.524+02	6.648+06	9.520−05	16	153	1.666+02	6.290+07	3.928−04
16	60	2.426+02	1.071+08	9.453−04	16	154	1.666+02	3.214+09	6.688−03
16	61	2.414+02	5.002+08	6.555−03	16	157	1.642+02	5.832+09	3.535−02
16	62	2.384+02	4.281+06	1.823−05	16	159	1.641+02	8.795+09	3.549−02
16	64	2.370+02	5.855+08	4.930−03	16	160	1.634+02	9.750+08	1.951−03
16	65	2.371+02	1.362+09	1.721−02	16	161	1.634+02	1.734+09	1.041−02
16	66	2.359+02	1.698+07	1.417−04	16	162	1.626+02	6.596+08	2.616−03
16	67	2.355+02	3.216+08	1.337−03	16	163	1.623+02	1.821+09	3.598−03
16	68	2.346+02	1.586+06	1.963−05	16	164	1.623+02	7.509+09	2.965−02
16	69	2.340+02	2.533+08	2.079−03	16	166	1.620+02	1.030+10	4.053−02
16	71	2.336+02	7.728+07	9.487−04	16	167	1.615+02	4.060+07	2.381−04
16	73	2.312+02	4.517+07	5.431−04	16	168	1.614+02	4.013+08	7.833−04
16	81	2.171+02	3.017+08	2.132−03	16	169	1.602+02	4.491+09	1.728−02
16	82	2.171+02	1.431+07	1.517−04	16	170	1.600+02	2.187+08	1.259−03
16	84	2.162+02	4.246+07	1.488−04	16	172	1.592+02	3.796+10	2.163−01
16	85	2.157+02	4.506+06	3.142−05	16	173	1.590+02	1.834+11	3.474−01
16	88	2.126+02	1.452+09	1.477−02	16	174	1.590+02	5.149+10	1.951−01
16	89	2.105+02	1.163+08	1.159−03	16	175	1.584+02	2.609+09	1.472−02
16	95	2.031+02	2.476+08	2.295−03	16	176	1.569+02	2.332+10	8.600−02
16	97	2.026+02	4.420+07	2.720−04	16	179	1.543+02	6.283+08	3.364−03
16	99	1.995+02	1.018+09	6.076−03	16	180	1.543+02	1.212+10	4.323−02
16	100	1.988+02	6.042+08	1.789−03	16	194	1.483+02	4.663+09	2.305−02
16	102	1.967+02	1.123+09	6.510−03	16	198	1.441+02	2.492+09	7.757−03
16	103	1.963+02	6.869+08	1.985−03	16	200	1.433+02	9.250+07	4.274−04
16	104	1.959+02	1.933+08	1.668−03	16	201	1.432+02	8.288+08	1.273−03
16	106	1.944+02	2.404+09	1.362−02	16	203	1.425+02	5.535+09	1.686−02
16	107	1.943+02	4.530+08	2.563−03	16	208	1.401+02	1.718+08	2.529−04
16	108	1.939+02	3.137+09	2.653−02	16	209	1.389+02	1.160+09	3.354−03
16	110	1.935+02	1.351+09	1.138−02	16	216	1.361+02	1.252+09	5.217−03
16	111	1.934+02	1.016+08	2.849−04	16	221	1.355+02	5.790+08	1.594−03
16	112	1.930+02	2.311+08	1.291−03	16	236	1.321+02	3.587+08	1.409−03
16	114	1.918+02	6.776+09	5.607−02	16	268	1.242+02	1.764+08	4.075−04
16	119	1.873+02	7.991+07	4.204−04	16	277	1.226+02	6.610+07	7.446−05
16	121	1.866+02	9.349+08	7.322−03	17	34	4.030+02	1.706+06	3.115−05
16	122	1.846+02	7.615+08	5.836−03	17	35	3.631+02	6.173+07	1.525−03
16	124	1.836+02	3.125+08	1.579−03	17	36	3.588+02	7.117+07	1.373−03
16	125	1.833+02	2.667+09	2.015−02	17	37	3.541+02	8.006+06	1.129−04
16	126	1.830+02	1.954+09	4.905−03	17	39	3.217+02	2.635+07	4.087−04
16	129	1.811+02	8.737+08	2.147−03	17	41	3.195+02	2.920+07	3.352−04
16	131	1.808+02	9.166+08	4.492−03	17	43	3.098+02	1.404+09	2.021−02
16	132	1.807+02	1.155+08	8.480−04	17	44	3.057+02	5.780+08	6.074−03
16	134	1.800+02	4.983+08	3.632−03	17	46	2.965+02	1.052+09	1.040−02
16	137	1.775+02	9.158+09	4.326−02	17	51	2.716+02	3.528+06	2.927−05
16	141	1.731+02	2.131+09	1.435−02	17	55	2.640+02	2.540+09	1.991−02
16	142	1.721+02	1.122+09	4.983−03	17	56	2.608+02	1.270+08	1.294−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
17	58	2.535+02	2.766+06	1.999−05	17	151	1.683+02	1.358+10	5.767−02
17	61	2.425+02	1.084+09	7.165−03	17	153	1.671+02	2.094+10	6.578−02
17	65	2.381+02	3.918+07	2.498−04	17	155	1.671+02	3.658+08	1.914−03
17	68	2.356+02	3.879+07	2.422−04	17	156	1.654+02	4.878+07	2.000−04
17	70	2.346+02	4.010+07	3.309−04	17	157	1.647+02	8.118+10	2.475−01
17	71	2.347+02	1.249+07	7.734−05	17	158	1.646+02	2.536+09	1.031−02
17	72	2.331+02	1.397+07	1.422−04	17	161	1.639+02	7.145+08	2.158−03
17	73	2.322+02	9.796+06	5.940−05	17	165	1.626+02	2.147+09	1.064−02
17	75	2.303+02	7.099+06	5.643−05	17	167	1.620+02	3.377+10	9.961−02
17	77	2.219+02	6.574+08	4.853−03	17	170	1.605+02	5.356+08	1.551−03
17	78	2.208+02	1.196+07	1.093−04	17	171	1.602+02	5.720+10	2.201−01
17	79	2.200+02	9.391+08	6.815−03	17	172	1.596+02	2.946+08	8.443−04
17	82	2.180+02	7.188+07	3.841−04	17	175	1.589+02	9.472+09	2.688−02
17	86	2.165+02	2.729+08	2.397−03	17	177	1.568+02	1.044+10	3.849−02
17	88	2.135+02	5.368+08	2.751−03	17	179	1.548+02	1.802+09	4.852−03
17	89	2.114+02	5.469+06	2.747−05	17	186	1.517+02	4.655+10	1.606−01
17	90	2.108+02	8.555+07	5.701−04	17	187	1.516+02	2.339+09	1.008−02
17	91	2.090+02	7.861+08	6.432−03	17	194	1.487+02	5.661+08	1.407−03
17	92	2.071+02	3.071+08	1.975−03	17	195	1.482+02	4.445+07	1.465−04
17	93	2.065+02	7.051+08	5.637−03	17	200	1.437+02	1.820+09	4.226−03
17	95	2.038+02	6.483+07	3.028−04	17	216	1.365+02	2.620+08	5.488−04
17	96	2.036+02	3.986+07	2.476−04	17	228	1.348+02	1.875+10	5.107−02
17	98	2.026+02	3.151+08	2.422−03	17	236	1.325+02	1.547+08	3.052−04
17	104	1.966+02	7.671+07	3.334−04	18	33	4.127+02	9.541+07	1.624−03
17	108	1.946+02	3.267+08	1.391−03	18	34	4.032+02	1.149+08	2.800−03
17	109	1.945+02	5.421+08	3.073−03	18	36	3.590+02	1.796+07	4.627−04
17	110	1.942+02	2.918+07	1.238−04	18	39	3.219+02	1.777+09	3.679−02
17	113	1.926+02	2.065+08	1.148−03	18	41	3.197+02	4.770+08	7.308−03
17	114	1.925+02	9.371+07	3.905−04	18	42	3.195+02	7.804+07	7.962−04
17	115	1.918+02	2.474+08	1.705−03	18	43	3.100+02	1.732+07	3.328−04
17	116	1.916+02	3.879+08	2.135−03	18	44	3.059+02	3.002+08	4.210−03
17	117	1.900+02	8.963+08	4.850−03	18	45	3.012+02	2.008+08	1.820−03
17	120	1.882+02	2.293+08	1.522−03	18	48	2.809+02	1.332+09	1.051−02
17	121	1.873+02	2.808+06	1.107−05	18	50	2.720+02	2.776+06	2.053−05
17	122	1.852+02	7.350+09	2.836−02	18	51	2.718+02	7.289+06	8.071−05
17	123	1.848+02	1.031+08	5.277−04	18	52	2.713+02	8.705+06	1.281−04
17	125	1.839+02	7.636+09	2.905−02	18	55	2.641+02	1.213+08	1.268−03
17	128	1.829+02	2.208+09	1.384−02	18	56	2.609+02	8.350+08	1.136−02
17	132	1.813+02	2.875+07	1.063−04	18	57	2.539+02	1.002+07	6.458−05
17	134	1.806+02	1.898+08	6.961−04	18	58	2.536+02	1.090+07	1.051−04
17	135	1.806+02	3.481+07	1.703−04	18	59	2.534+02	3.339+07	4.286−04
17	136	1.796+02	4.522+10	2.732−01	18	60	2.438+02	9.822+07	5.836−04
17	138	1.774+02	2.322+09	1.095−02	18	61	2.426+02	9.856+08	8.695−03
17	140	1.748+02	2.308+06	1.321−05	18	63	2.386+02	9.203+08	1.047−02
17	141	1.736+02	2.436+09	8.256−03	18	64	2.381+02	6.422+07	3.639−04
17	143	1.723+02	2.252+10	1.253−01	18	65	2.382+02	5.248+08	4.464−03
17	144	1.713+02	1.891+09	8.313−03	18	68	2.357+02	5.322+07	4.434−04
17	145	1.701+02	1.375+09	4.473−03	18	69	2.351+02	1.690+07	9.334−05
17	149	1.693+02	3.949+10	1.698−01	18	70	2.347+02	1.662+07	1.830−04
17	150	1.688+02	9.557+08	3.061−03	18	71	2.347+02	1.162+07	9.596−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
18	73	2.323+02	4.916+06	3.977−05	18	158	1.647+02	8.192+08	4.440−03
18	75	2.304+02	7.844+06	8.321−05	18	159	1.646+02	7.489+09	2.028−02
18	77	2.220+02	3.759+08	3.703−03	18	161	1.639+02	5.745+08	2.315−03
18	79	2.201+02	8.666+08	8.392−03	18	162	1.632+02	8.963+09	2.386−02
18	81	2.181+02	3.200+07	1.520−04	18	164	1.628+02	1.248+10	3.307−02
18	82	2.181+02	3.797+08	2.708−03	18	166	1.625+02	1.766+10	4.661−02
18	85	2.166+02	5.270+08	2.471−03	18	167	1.620+02	2.383+08	9.376−04
18	88	2.135+02	6.237+08	4.264−03	18	169	1.607+02	1.502+10	3.877−02
18	89	2.114+02	3.038+06	2.036−05	18	170	1.605+02	1.485+10	5.736−02
18	92	2.072+02	8.243+08	7.075−03	18	171	1.602+02	1.443+09	7.406−03
18	95	2.039+02	2.149+07	1.339−04	18	172	1.597+02	7.031+10	2.688−01
18	96	2.036+02	1.095+07	9.081−05	18	174	1.595+02	3.775+07	9.596−05
18	97	2.034+02	6.546+06	2.708−05	18	175	1.589+02	2.622+10	9.925−02
18	99	2.003+02	2.376+09	9.528−03	18	176	1.574+02	1.094+11	2.708−01
18	102	1.974+02	1.575+08	6.137−04	18	177	1.569+02	8.268+09	4.067−02
18	104	1.967+02	2.280+07	1.322−04	18	179	1.548+02	3.389+10	1.217−01
18	106	1.952+02	2.466+07	9.391−05	18	180	1.547+02	4.625+09	1.107−02
18	107	1.950+02	2.998+08	1.140−03	18	186	1.518+02	3.723+08	1.714−03
18	108	1.947+02	3.484+09	1.980−02	18	194	1.487+02	1.765+09	5.851−03
18	109	1.945+02	6.330+09	4.788−02	18	195	1.483+02	1.621+10	7.123−02
18	110	1.943+02	5.581+07	3.158−04	18	200	1.438+02	2.424+09	7.511−03
18	112	1.938+02	3.871+07	1.453−04	18	203	1.429+02	2.967+09	6.061−03
18	113	1.926+02	3.595+09	2.666−02	18	209	1.393+02	1.247+08	2.418−04
18	114	1.926+02	6.380+08	3.547−03	18	216	1.365+02	4.341+08	1.213−03
18	116	1.916+02	7.325+08	5.378−03	18	221	1.359+02	6.038+07	1.114−04
18	117	1.900+02	2.234+09	1.612−02	18	228	1.348+02	4.330+08	1.573−03
18	119	1.881+02	4.039+07	1.427−04	18	236	1.325+02	4.630+08	1.218−03
18	121	1.873+02	1.199+07	6.307−05	18	268	1.245+02	2.456+07	3.803−05
18	122	1.853+02	2.743+08	1.412−03	19	33	4.181+02	1.120+07	1.958−04
18	123	1.848+02	4.149+09	2.834−02	19	34	4.085+02	2.035+08	5.091−03
18	124	1.843+02	6.457+07	2.192−04	19	36	3.631+02	4.848+05	1.278−05
18	125	1.840+02	3.808+06	1.933−05	19	37	3.584+02	2.324+06	4.475−05
18	130	1.818+02	2.682+08	1.772−03	19	39	3.252+02	8.895+08	1.880−02
18	131	1.815+02	1.936+09	6.372−03	19	41	3.229+02	3.246+08	5.075−03
18	132	1.814+02	6.756+06	3.332−05	19	42	3.228+02	6.284+07	6.543−04
18	134	1.807+02	2.034+09	9.952−03	19	43	3.131+02	3.382+08	6.626−03
18	135	1.807+02	1.278+09	8.344−03	19	44	3.089+02	1.813+08	2.593−03
18	137	1.781+02	1.338+10	4.244−02	19	45	3.041+02	2.137+08	1.975−03
18	138	1.774+02	1.633+09	1.028−02	19	46	2.994+02	7.217+06	9.701−05
18	141	1.737+02	1.170+09	5.293−03	19	48	2.834+02	1.919+09	1.541−02
18	142	1.727+02	9.264+07	2.762−04	19	51	2.741+02	6.450+06	7.265−05
18	144	1.713+02	4.113+09	2.413−02	19	52	2.737+02	1.060+07	1.587−04
18	145	1.701+02	1.806+09	7.841−03	19	55	2.664+02	1.997+08	2.124−03
18	146	1.697+02	8.856+08	2.550−03	19	56	2.630+02	1.561+09	2.159−02
18	149	1.694+02	1.220+08	6.997−04	19	57	2.560+02	5.379+06	3.523−05
18	150	1.688+02	2.781+09	1.188−02	19	58	2.557+02	2.891+06	2.834−05
18	151	1.684+02	3.274+10	1.855−01	19	59	2.555+02	2.968+07	3.872−04
18	153	1.672+02	4.542+09	1.903−02	19	60	2.457+02	2.168+08	1.308−03
18	156	1.654+02	2.740+09	1.498−02	19	61	2.445+02	1.888+09	1.692−02
18	157	1.647+02	1.106+08	4.497−04	19	63	2.404+02	8.874+08	1.025−02

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
19	64	2.399+02	3.747+06	2.156−05	19	150	1.697+02	2.625+08	1.134−03
19	65	2.400+02	5.306+07	4.583−04	19	151	1.693+02	1.722+09	9.867−03
19	66	2.389+02	2.604+06	1.485−05	19	152	1.689+02	3.820+08	1.089−03
19	68	2.375+02	2.238+06	1.893−05	19	153	1.681+02	1.378+09	5.838−03
19	69	2.369+02	1.778+07	9.971−05	19	156	1.663+02	8.698+08	4.808−03
19	70	2.364+02	2.710+06	3.029−05	19	157	1.656+02	2.880+09	1.184−02
19	71	2.365+02	1.309+06	1.098−05	19	158	1.655+02	1.051+07	5.757−05
19	73	2.340+02	3.891+07	3.195−04	19	159	1.655+02	2.593+09	7.096−03
19	75	2.321+02	1.415+07	1.523−04	19	161	1.648+02	1.151+09	4.686−03
19	77	2.236+02	2.774+08	2.772−03	19	162	1.640+02	5.879+09	1.581−02
19	79	2.216+02	6.674+08	6.554−03	19	164	1.637+02	1.454+10	3.893−02
19	81	2.196+02	4.977+06	2.398−05	19	166	1.634+02	1.364+10	3.639−02
19	82	2.196+02	8.865+08	6.410−03	19	167	1.628+02	3.952+09	1.571−02
19	85	2.181+02	6.925+08	3.293−03	19	169	1.616+02	5.101+06	1.330−05
19	88	2.150+02	2.481+09	1.719−02	19	170	1.613+02	5.383+10	2.100−01
19	92	2.086+02	6.050+08	5.262−03	19	171	1.611+02	9.458+09	4.905−02
19	95	2.052+02	2.571+07	1.623−04	19	172	1.605+02	3.012+10	1.163−01
19	96	2.050+02	6.606+07	5.547−04	19	174	1.603+02	5.765+10	1.480−01
19	97	2.048+02	6.195+06	2.596−05	19	175	1.597+02	1.138+10	4.353−02
19	99	2.016+02	2.336+09	9.484−03	19	176	1.581+02	6.169+10	1.542−01
19	102	1.987+02	9.290+07	3.666−04	19	177	1.576+02	5.237+09	2.602−02
19	104	1.979+02	1.150+09	6.753−03	19	179	1.556+02	4.037+10	1.464−01
19	106	1.964+02	4.852+08	1.871−03	19	180	1.555+02	4.314+09	1.043−02
19	107	1.962+02	2.013+08	7.749−04	19	186	1.525+02	8.936+08	4.153−03
19	108	1.959+02	9.400+08	5.408−03	19	194	1.494+02	3.020+09	1.011−02
19	109	1.957+02	3.489+08	2.672−03	19	195	1.490+02	2.636+10	1.170−01
19	110	1.955+02	1.479+08	8.476−04	19	200	1.444+02	3.124+09	9.768−03
19	112	1.950+02	1.190+08	4.523−04	19	203	1.436+02	4.962+09	1.023−02
19	113	1.938+02	3.924+07	2.946−04	19	209	1.399+02	8.759+08	1.713−03
19	114	1.938+02	3.576+08	2.013−03	19	216	1.371+02	2.791+07	7.865−05
19	116	1.928+02	1.740+09	1.293−02	19	228	1.354+02	1.265+09	4.635−03
19	117	1.912+02	9.506+09	6.945−02	19	236	1.331+02	5.578+08	1.480−03
19	119	1.892+02	3.385+06	1.211−05	20	35	3.797+02	1.098+08	2.373−03
19	121	1.884+02	2.455+08	1.307−03	20	36	3.750+02	1.283+06	2.165−05
19	122	1.864+02	6.886+07	3.587−04	20	39	3.347+02	2.348+07	3.155−04
19	123	1.859+02	7.660+08	5.293−03	20	43	3.219+02	7.073+07	8.790−04
19	124	1.854+02	3.393+08	1.165−03	20	52	2.804+02	2.394+06	2.257−05
19	125	1.851+02	1.659+08	8.517−04	20	56	2.692+02	8.460+09	7.355−02
19	130	1.829+02	4.388+08	2.933−03	20	59	2.613+02	2.019+06	1.653−05
19	131	1.825+02	6.755+06	2.249−05	20	63	2.456+02	2.168+07	1.568−04
19	134	1.817+02	2.383+09	1.180−02	20	70	2.414+02	1.224+07	8.560−05
19	135	1.817+02	8.653+09	5.712−02	20	72	2.399+02	1.466+06	1.264−05
19	137	1.791+02	1.764+10	5.659−02	20	74	2.383+02	3.352+06	3.426−05
19	138	1.784+02	1.509+09	9.603−03	20	75	2.369+02	2.948+07	1.984−04
19	141	1.746+02	2.509+08	1.147−03	20	77	2.280+02	5.369+08	3.348−03
19	142	1.737+02	1.349+07	4.066−05	20	78	2.269+02	3.702+06	2.857−05
19	144	1.722+02	1.106+10	6.558−02	20	79	2.260+02	1.079+09	6.611−03
19	145	1.711+02	4.575+09	2.007−02	20	87	2.208+02	1.036+08	9.087−04
19	146	1.707+02	5.448+08	1.586−03	20	90	2.164+02	4.646+07	2.608−04
19	149	1.703+02	1.244+10	7.212−02	20	91	2.144+02	2.002+08	1.379−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
20	92	2.125+02	1.156+08	6.257−04	21	70	2.416+02	1.309+07	1.145−04
20	93	2.118+02	6.374+08	4.288−03	21	71	2.417+02	3.145+06	2.065−05
20	94	2.111+02	4.710+08	3.776−03	21	72	2.400+02	2.224+06	2.401−05
20	96	2.087+02	5.942+07	3.104−04	21	77	2.282+02	8.257+07	6.445−04
20	98	2.076+02	3.494+08	2.259−03	21	78	2.270+02	1.711+06	1.652−05
20	101	2.024+02	1.663+08	1.226−03	21	79	2.262+02	3.121+08	2.393−03
20	109	1.991+02	9.582+08	4.557−03	21	82	2.240+02	1.977+09	1.116−02
20	113	1.971+02	6.751+07	3.147−04	21	86	2.224+02	1.759+08	1.631−03
20	115	1.963+02	9.791+08	5.658−03	21	88	2.192+02	8.058+06	4.355−05
20	116	1.961+02	1.525+08	7.035−04	21	89	2.170+02	9.988+06	5.290−05
20	117	1.944+02	4.671+06	2.118−05	21	90	2.165+02	4.964+07	3.487−04
20	120	1.926+02	4.793+08	2.665−03	21	92	2.126+02	2.815+08	1.907−03
20	123	1.890+02	3.142+09	1.346−02	21	93	2.119+02	7.123+08	5.997−03
20	127	1.873+02	1.506+08	9.507−04	21	95	2.091+02	3.948+07	1.941−04
20	128	1.870+02	4.481+08	2.350−03	21	96	2.088+02	2.810+08	1.837−03
20	130	1.858+02	2.420+08	1.002−03	21	98	2.078+02	7.733+07	6.255−04
20	135	1.847+02	3.081+10	1.260−01	21	104	2.015+02	4.218+08	1.926−03
20	136	1.835+02	4.909+09	2.479−02	21	108	1.994+02	1.201+09	5.371−03
20	138	1.813+02	3.450+09	1.360−02	21	109	1.992+02	1.956+08	1.164−03
20	139	1.805+02	4.746+08	2.783−03	21	110	1.990+02	9.174+07	4.085−04
20	140	1.785+02	1.583+08	7.565−04	21	113	1.973+02	1.915+09	1.117−02
20	143	1.760+02	3.336+09	1.548−02	21	115	1.964+02	3.646+07	2.637−04
20	144	1.749+02	8.455+07	3.101−04	21	116	1.962+02	3.136+07	1.810−04
20	148	1.731+02	8.808+10	4.750−01	21	117	1.945+02	8.001+08	4.539−03
20	149	1.729+02	3.533+10	1.266−01	21	120	1.927+02	2.733+07	1.902−04
20	151	1.718+02	1.918+10	6.792−02	21	121	1.917+02	1.024+09	4.232−03
20	155	1.706+02	2.552+09	1.113−02	21	122	1.896+02	8.128+09	3.285−02
20	156	1.687+02	4.650+08	1.588−03	21	123	1.891+02	7.876+07	4.222−04
20	158	1.680+02	1.094+10	3.703−02	21	125	1.882+02	1.081+10	4.305−02
20	165	1.658+02	2.666+10	1.099−01	21	128	1.871+02	1.076+09	7.059−03
20	171	1.634+02	4.429+10	1.418−01	21	130	1.859+02	6.610+07	3.425−04
20	177	1.599+02	1.619+09	4.961−03	21	132	1.855+02	7.019+07	2.715−04
20	186	1.545+02	8.032+08	2.301−03	21	134	1.848+02	1.111+07	4.265−05
20	187	1.544+02	1.368+11	4.891−01	21	135	1.848+02	3.548+08	1.816−03
20	195	1.509+02	6.250+09	1.708−02	21	136	1.836+02	9.129+09	5.770−02
20	228	1.370+02	6.145+08	1.384−03	21	138	1.814+02	1.183+10	5.835−02
21	35	3.801+02	7.003+05	1.896−05	21	140	1.786+02	6.630+08	3.964−03
21	36	3.754+02	2.983+07	6.303−04	21	141	1.774+02	3.698+07	1.309−04
21	37	3.704+02	1.018+07	1.570−04	21	143	1.761+02	5.945+10	3.453−01
21	39	3.350+02	8.185+06	1.377−04	21	144	1.750+02	7.875+08	3.614−03
21	41	3.326+02	4.304+06	5.354−05	21	145	1.738+02	6.766+08	2.297−03
21	43	3.222+02	5.304+08	8.254−03	21	149	1.729+02	3.412+09	1.530−02
21	44	3.177+02	1.188+08	1.349−03	21	150	1.724+02	9.896+09	3.306−02
21	46	3.078+02	2.088+08	2.223−03	21	151	1.719+02	1.202+09	5.326−03
21	51	2.811+02	1.234+06	1.096−05	21	153	1.707+02	5.958+10	1.951−01
21	55	2.729+02	6.312+09	5.287−02	21	155	1.706+02	1.061+07	5.789−05
21	56	2.694+02	3.308+07	3.601−04	21	156	1.688+02	9.569+08	4.089−03
21	61	2.500+02	7.805+08	5.484−03	21	157	1.681+02	3.936+10	1.251−01
21	65	2.453+02	3.451+06	2.336−05	21	158	1.681+02	1.263+10	5.347−02
21	68	2.427+02	1.197+07	7.928−05	21	161	1.673+02	5.207+09	1.639−02

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
21	165	1.659+02	7.727+09	3.986−02	22	97	2.102+02	1.662+07	7.343−05
21	167	1.653+02	3.606+06	1.107−05	22	99	2.068+02	6.765+08	2.893−03
21	170	1.637+02	1.138+10	3.430−02	22	102	2.038+02	4.555+08	1.891−03
21	171	1.634+02	3.227+10	1.292−01	22	104	2.030+02	4.680+08	2.891−03
21	172	1.629+02	3.532+09	1.053−02	22	106	2.014+02	1.514+08	6.139−04
21	175	1.621+02	5.722+08	1.690−03	22	107	2.012+02	3.254+08	1.317−03
21	177	1.599+02	2.649+07	1.016−04	22	108	2.009+02	2.280+08	1.380−03
21	186	1.546+02	8.991+10	3.222−01	22	109	2.007+02	2.845+08	2.291−03
21	187	1.545+02	1.274+10	5.702−02	22	110	2.004+02	2.704+09	1.628−02
21	194	1.514+02	2.800+09	7.221−03	22	112	1.999+02	1.277+08	5.101−04
21	195	1.510+02	1.256+09	4.296−03	22	113	1.987+02	7.694+08	6.071−03
21	200	1.463+02	2.102+09	5.060−03	22	114	1.986+02	5.092+08	3.011−03
21	216	1.388+02	9.266+08	2.008−03	22	116	1.976+02	2.640+07	2.061−04
21	228	1.371+02	1.822+10	5.134−02	22	117	1.959+02	2.690+08	2.064−03
21	236	1.347+02	1.861+09	3.796−03	22	119	1.938+02	1.192+08	4.477−04
22	33	4.415+02	1.270+06	2.475−05	22	121	1.931+02	2.266+07	1.266−04
22	36	3.806+02	3.050+06	8.832−05	22	122	1.909+02	1.551+08	8.472−04
22	37	3.754+02	2.044+06	4.318−05	22	123	1.904+02	6.472+08	4.690−03
22	38	3.706+02	1.836+07	2.521−04	22	124	1.898+02	1.549+07	5.577−05
22	39	3.391+02	1.714+07	3.940−04	22	125	1.895+02	1.429+08	7.694−04
22	41	3.367+02	1.647+06	2.799−05	22	130	1.872+02	2.785+07	1.951−04
22	43	3.260+02	1.029+08	2.185−03	22	131	1.868+02	7.515+07	2.622−04
22	44	3.214+02	7.801+08	1.208−02	22	132	1.867+02	3.201+07	1.673−04
22	45	3.162+02	1.353+09	1.352−02	22	135	1.860+02	4.100+09	2.836−02
22	46	3.112+02	8.593+08	1.248−02	22	138	1.826+02	4.203+10	2.800−01
22	48	2.940+02	7.308+08	6.312−03	22	141	1.786+02	1.407+09	6.726−03
22	55	2.757+02	2.430+08	2.769−03	22	142	1.776+02	1.160+08	3.655−04
22	56	2.721+02	1.720+07	2.546−04	22	145	1.749+02	5.064+07	2.321−04
22	60	2.536+02	1.955+09	1.256−02	22	146	1.744+02	4.398+08	1.337−03
22	61	2.522+02	5.070+06	4.836−05	22	149	1.740+02	1.492+08	9.032−04
22	63	2.480+02	1.602+06	1.970−05	22	150	1.735+02	6.238+08	2.814−03
22	64	2.474+02	1.334+08	8.162−04	22	151	1.730+02	2.030+08	1.214−03
22	65	2.475+02	3.381+06	3.106−05	22	152	1.726+02	5.539+09	1.649−02
22	66	2.463+02	1.169+07	7.089−05	22	153	1.717+02	1.303+10	5.764−02
22	68	2.449+02	2.644+07	2.376−04	22	156	1.699+02	5.407+08	3.118−03
22	69	2.442+02	2.037+07	1.214−04	22	157	1.691+02	4.343+09	1.862−02
22	70	2.437+02	1.409+06	1.673−05	22	158	1.691+02	1.443+10	8.246−02
22	71	2.438+02	6.998+06	6.235−05	22	159	1.690+02	6.456+10	1.843−01
22	73	2.412+02	7.294+06	6.360−05	22	161	1.683+02	4.414+09	1.874−02
22	77	2.301+02	4.044+07	4.279−04	22	164	1.671+02	4.531+09	1.265−02
22	79	2.280+02	5.190+06	5.395−05	22	166	1.668+02	5.323+10	1.480−01
22	81	2.258+02	5.594+08	2.852−03	22	167	1.663+02	2.305+10	9.555−02
22	82	2.259+02	1.394+09	1.066−02	22	169	1.649+02	1.724+10	4.685−02
22	85	2.243+02	1.320+08	6.636−04	22	170	1.647+02	3.243+10	1.319−01
22	88	2.210+02	7.488+07	5.483−04	22	171	1.644+02	2.252+09	1.217−02
22	89	2.188+02	3.473+07	2.492−04	22	172	1.638+02	2.311+10	9.300−02
22	90	2.182+02	8.007+07	7.620−04	22	174	1.636+02	2.131+09	5.701−03
22	92	2.142+02	9.408+08	8.631−03	22	175	1.630+02	3.757+10	1.497−01
22	95	2.107+02	1.429+08	9.511−04	22	176	1.614+02	5.463+08	1.422−03
22	96	2.104+02	4.616+06	4.085−05	22	177	1.609+02	6.016+08	3.111−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
22	179	1.587+02	8.965+09	3.384−02	23	108	2.140+02	9.765+07	6.706−04
22	180	1.586+02	8.604+09	2.164−02	23	109	2.138+02	1.281+08	1.171−03
22	186	1.555+02	1.492+10	7.211−02	23	110	2.135+02	4.161+08	2.845−03
22	194	1.523+02	9.699+08	3.372−03	23	112	2.129+02	1.226+09	5.556−03
22	195	1.519+02	9.231+08	4.255−03	23	113	2.115+02	1.674+08	1.497−03
22	198	1.479+02	3.453+09	7.550−03	23	114	2.115+02	1.592+08	1.067−03
22	200	1.471+02	4.252+07	1.379−04	23	116	2.104+02	5.167+07	4.570−04
22	203	1.463+02	7.615+08	1.628−03	23	117	2.084+02	5.163+07	4.482−04
22	209	1.424+02	2.214+09	4.488−03	23	119	2.060+02	1.015+08	4.306−04
22	216	1.395+02	5.751+09	1.679−02	23	121	2.052+02	2.731+08	1.723−03
22	221	1.389+02	8.061+08	1.554−03	23	122	2.027+02	1.620+09	9.978−03
22	228	1.378+02	2.822+09	1.071−02	23	123	2.022+02	1.111+08	9.076−04
22	236	1.353+02	2.941+10	8.077−02	23	124	2.015+02	8.238+07	3.344−04
23	37	4.241+02	5.239+05	1.412−05	23	125	2.012+02	1.602+09	9.719−03
23	39	3.784+02	8.298+06	2.374−04	23	130	1.986+02	5.012+06	3.950−05
23	41	3.753+02	1.118+07	2.361−04	23	132	1.980+02	2.101+06	1.236−05
23	42	3.751+02	5.769+06	8.112−05	23	134	1.972+02	4.176+06	2.435−05
23	43	3.621+02	1.137+07	2.980−04	23	135	1.972+02	3.769+06	2.930−05
23	44	3.564+02	8.196+07	1.561−03	23	137	1.942+02	3.635+07	1.370−04
23	45	3.501+02	1.730+07	2.119−04	23	138	1.934+02	2.484+09	1.856−02
23	46	3.440+02	3.530+08	6.261−03	23	141	1.889+02	9.684+08	5.181−03
23	48	3.230+02	3.007+07	3.136−04	23	142	1.878+02	5.924+08	2.088−03
23	55	3.010+02	1.585+09	2.153−02	23	144	1.861+02	2.677+07	1.853−04
23	56	2.968+02	1.389+08	2.445−03	23	145	1.847+02	1.671+08	8.549−04
23	60	2.749+02	4.585+09	3.463−02	23	146	1.842+02	2.826+08	9.588−04
23	61	2.733+02	6.986+08	7.826−03	23	149	1.838+02	2.648+08	1.789−03
23	63	2.683+02	1.231+06	1.772−05	23	150	1.832+02	1.963+08	9.877−04
23	64	2.677+02	2.978+07	2.133−04	23	151	1.826+02	1.068+08	7.124−04
23	65	2.678+02	7.507+06	8.072−05	23	152	1.822+02	9.843+08	3.266−03
23	66	2.664+02	6.163+06	4.370−05	23	153	1.813+02	1.986+07	9.783−05
23	68	2.647+02	1.726+07	1.813−04	23	156	1.792+02	6.865+08	4.405−03
23	69	2.639+02	3.768+07	2.622−04	23	157	1.784+02	1.446+09	6.898−03
23	71	2.634+02	9.262+06	9.637−05	23	158	1.783+02	2.940+10	1.868−01
23	73	2.604+02	3.985+06	4.051−05	23	159	1.782+02	6.166+09	1.957−02
23	77	2.475+02	6.028+07	7.380−04	23	161	1.774+02	1.222+08	5.766−04
23	79	2.451+02	2.944+08	3.536−03	23	162	1.766+02	1.911+08	5.953−04
23	81	2.426+02	1.395+08	8.205−04	23	164	1.761+02	8.504+09	2.636−02
23	82	2.426+02	1.061+09	9.367−03	23	167	1.752+02	7.001+09	3.221−02
23	85	2.408+02	4.588+06	2.659−05	23	169	1.737+02	4.331+09	1.306−02
23	88	2.370+02	8.454+08	7.121−03	23	170	1.734+02	2.154+09	9.710−03
23	89	2.344+02	1.748+08	1.441−03	23	171	1.731+02	3.494+08	2.093−03
23	90	2.338+02	3.289+07	3.593−04	23	172	1.725+02	3.571+09	1.592−02
23	92	2.292+02	1.422+09	1.494−02	23	174	1.722+02	1.543+09	4.575−03
23	95	2.252+02	4.854+07	3.690−04	23	175	1.716+02	6.314+09	2.786−02
23	96	2.249+02	4.289+06	4.336−05	23	176	1.697+02	7.620+07	2.194−04
23	99	2.208+02	7.376+06	3.594−05	23	177	1.692+02	1.269+09	7.258−03
23	102	2.174+02	1.648+09	7.780−03	23	179	1.668+02	5.581+09	2.327−02
23	104	2.164+02	2.667+08	1.873−03	23	180	1.667+02	9.192+10	2.553−01
23	106	2.146+02	2.204+08	1.015−03	23	186	1.632+02	5.794+10	3.086−01
23	107	2.144+02	1.676+09	7.703−03	23	194	1.597+02	1.279+11	4.892−01

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
23	195	1.592+02	1.257+09	6.370−03	24	125	2.032+02	3.628+08	1.684−03
23	198	1.549+02	5.036+10	1.208−01	24	128	2.019+02	5.734+07	4.381−04
23	200	1.540+02	5.004+08	1.780−03	24	130	2.005+02	7.110+07	4.286−04
23	203	1.531+02	4.236+09	9.926−03	24	134	1.991+02	7.629+06	3.402−05
23	209	1.489+02	5.042+08	1.117−03	24	135	1.992+02	3.163+09	1.881−02
23	221	1.450+02	1.262+08	2.654−04	24	136	1.979+02	3.263+08	2.394−03
23	228	1.438+02	3.279+07	1.356−04	24	138	1.952+02	2.325+08	1.328−03
23	236	1.412+02	2.343+09	7.000−03	24	140	1.921+02	5.627+08	3.889−03
23	268	1.321+02	1.540+08	2.685−04	24	141	1.907+02	1.797+09	7.348−03
24	35	4.466+02	3.762+05	1.406−05	24	143	1.891+02	9.965+07	6.677−04
24	36	4.401+02	4.561+05	1.325−05	24	145	1.864+02	7.694+08	3.007−03
24	39	3.855+02	4.080+07	9.092−04	24	149	1.855+02	2.203+07	1.137−04
24	41	3.824+02	4.846+06	7.969−05	24	150	1.849+02	9.601+08	3.689−03
24	43	3.686+02	1.608+08	3.276−03	24	151	1.843+02	9.614+07	4.896−04
24	44	3.628+02	3.147+07	4.658−04	24	153	1.829+02	8.857+07	3.331−04
24	46	3.499+02	2.552+07	3.513−04	24	155	1.828+02	1.402+08	8.783−04
24	55	3.056+02	1.037+07	1.088−04	24	156	1.808+02	7.024+07	3.441−04
24	56	3.012+02	2.078+09	2.826−02	24	157	1.799+02	1.996+09	7.265−03
24	61	2.771+02	4.739+09	4.090−02	24	158	1.799+02	3.693+07	1.791−04
24	63	2.719+02	1.557+07	1.726−04	24	161	1.790+02	2.606+07	9.390−05
24	68	2.682+02	2.823+06	2.283−05	24	165	1.774+02	2.954+10	1.743−01
24	70	2.668+02	3.069+06	3.276−05	24	167	1.767+02	1.159+09	4.070−03
24	71	2.669+02	6.065+06	4.858−05	24	170	1.749+02	1.630+10	5.608−02
24	73	2.638+02	1.469+07	1.149−04	24	172	1.739+02	9.132+09	3.107−02
24	75	2.612+02	8.756+06	8.959−05	24	175	1.730+02	3.009+09	1.013−02
24	76	2.589+02	1.298+06	1.630−05	24	177	1.706+02	1.777+10	7.755−02
24	77	2.506+02	4.161+08	3.916−03	24	179	1.681+02	7.098+10	2.256−01
24	78	2.492+02	2.494+06	2.902−05	24	186	1.646+02	3.910+08	1.588−03
24	79	2.481+02	8.995+08	8.303−03	24	187	1.645+02	6.527+10	3.308−01
24	82	2.456+02	3.570+07	2.420−04	24	194	1.610+02	1.451+10	4.229−02
24	88	2.398+02	2.902+08	1.876−03	24	195	1.605+02	1.293+11	4.993−01
24	89	2.372+02	4.339+06	2.744−05	24	200	1.552+02	4.223+10	1.144−01
24	91	2.341+02	6.749+07	6.934−04	24	216	1.468+02	2.461+08	5.963−04
24	92	2.319+02	3.972+08	3.202−03	24	228	1.449+02	2.625+09	8.259−03
24	93	2.311+02	1.697+09	1.699−02	24	236	1.422+02	1.337+07	3.039−05
24	95	2.277+02	2.413+06	1.407−05	25	37	4.885+02	1.509+06	8.100−05
24	96	2.274+02	1.438+07	1.115−04	25	38	4.805+02	3.548+06	1.228−04
24	104	2.188+02	2.564+09	1.380−02	25	40	4.262+02	1.926+07	2.622−04
24	108	2.163+02	2.039+09	1.073−02	25	41	4.250+02	1.429+06	5.805−05
24	109	2.161+02	2.980+08	2.086−03	25	42	4.247+02	3.097+06	8.373−05
24	110	2.158+02	2.643+08	1.384−03	25	44	4.009+02	7.165+06	2.590−04
24	113	2.138+02	2.072+08	1.420−03	25	45	3.929+02	3.872+07	8.962−04
24	114	2.137+02	2.291+07	1.177−04	25	46	3.852+02	4.891+06	1.632−04
24	115	2.128+02	2.362+07	2.005−04	25	47	3.721+02	1.295+07	1.344−04
24	116	2.126+02	1.673+07	1.133−04	25	48	3.591+02	5.695+05	1.101−05
24	117	2.106+02	8.244+07	5.480−04	25	55	3.322+02	1.005+08	2.494−03
24	120	2.084+02	3.003+07	2.444−04	25	60	3.006+02	1.674+09	2.269−02
24	121	2.073+02	1.761+07	8.506−05	25	61	2.988+02	2.158+08	4.332−03
24	122	2.048+02	4.235+06	1.997−05	25	64	2.920+02	6.648+07	8.501−04
24	123	2.042+02	1.843+09	1.152−02	25	66	2.904+02	1.793+07	2.268−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
25	69	2.875+02	3.352+07	4.153−04	25	169	1.836+02	2.213+09	1.118−02
25	73	2.833+02	1.601+06	2.890−05	25	170	1.833+02	4.279+08	3.233−03
25	81	2.624+02	1.043+09	1.077−02	25	172	1.822+02	2.873+09	2.145−02
25	82	2.625+02	3.266+06	5.059−05	25	173	1.820+02	1.138+07	2.826−05
25	84	2.611+02	1.182+08	6.043−04	25	174	1.820+02	1.383+09	6.865−03
25	85	2.603+02	2.979+08	3.026−03	25	175	1.812+02	1.379+10	1.019−01
25	88	2.559+02	1.911+08	2.814−03	25	176	1.792+02	5.426+07	2.613−04
25	89	2.529+02	1.966+07	2.827−04	25	179	1.759+02	1.304+09	9.074−03
25	97	2.416+02	9.053+07	7.919−04	25	180	1.758+02	1.299+10	6.020−02
25	99	2.371+02	8.192+06	6.903−05	25	194	1.681+02	2.684+10	1.705−01
25	100	2.361+02	4.897+07	2.046−04	25	198	1.628+02	7.547+10	2.997−01
25	102	2.331+02	2.988+08	2.435−03	25	200	1.618+02	5.774+09	3.399−02
25	106	2.300+02	8.333+07	6.608−04	25	201	1.616+02	4.383+10	8.575−02
25	107	2.298+02	5.646+08	4.468−03	25	203	1.608+02	2.870+08	1.112−03
25	108	2.293+02	5.687+08	6.725−03	25	208	1.577+02	1.376+11	2.563−01
25	110	2.287+02	6.208+08	7.304−03	25	209	1.561+02	8.074+09	2.951−02
25	111	2.285+02	6.084+07	2.382−04	25	216	1.527+02	3.440+09	1.803−02
25	112	2.281+02	5.237+07	4.083−04	25	221	1.519+02	9.412+10	3.255−01
25	114	2.264+02	1.710+08	1.970−03	25	236	1.477+02	1.082+09	5.307−03
25	118	2.209+02	1.661+07	6.074−05	25	268	1.378+02	1.233+08	3.507−04
25	119	2.201+02	2.108+07	1.532−04	25	277	1.358+02	9.506+08	1.315−03
25	121	2.192+02	7.825+07	8.451−04	26	34	6.064+02	6.670+05	3.677−05
25	122	2.164+02	2.384+08	2.511−03	26	36	5.116+02	8.678+05	4.540−05
25	124	2.150+02	1.971+07	1.366−04	26	37	5.022+02	7.343+05	2.776−05
25	125	2.146+02	1.541+08	1.596−03	26	39	4.393+02	7.753+06	2.991−04
25	126	2.141+02	7.148+06	2.457−05	26	41	4.353+02	2.298+06	6.526−05
25	129	2.115+02	6.384+06	2.141−05	26	42	4.349+02	5.759+06	1.089−04
25	132	2.111+02	7.526+07	7.538−04	26	43	4.175+02	1.885+07	6.569−04
25	133	2.101+02	1.385+09	4.584−03	26	44	4.101+02	3.252+07	8.199−04
25	134	2.101+02	1.230+06	1.222−05	26	45	4.017+02	1.308+07	2.110−04
25	137	2.067+02	4.511+06	2.889−05	26	48	3.664+02	6.428+06	8.626−05
25	141	2.007+02	5.270+08	4.774−03	26	55	3.384+02	6.404+05	1.100−05
25	142	1.994+02	5.097+08	3.039−03	26	56	3.331+02	1.932+08	4.285−03
25	145	1.960+02	1.890+07	1.633−04	26	60	3.058+02	2.310+08	2.158−03
25	146	1.955+02	2.642+07	1.513−04	26	61	3.038+02	1.524+09	2.109−02
25	147	1.953+02	3.675+08	1.051−03	26	63	2.976+02	2.799+06	4.956−05
25	150	1.942+02	3.773+08	3.202−03	26	64	2.969+02	4.344+06	3.826−05
25	152	1.932+02	9.307+08	5.207−03	26	65	2.970+02	1.093+07	1.445−04
25	153	1.921+02	3.092+09	2.566−02	26	68	2.931+02	3.594+06	4.630−05
25	154	1.921+02	8.823+07	2.440−04	26	69	2.921+02	4.960+06	4.231−05
25	157	1.888+02	3.207+09	2.572−02	26	70	2.915+02	1.566+06	2.661−05
25	159	1.887+02	6.857+09	3.659−02	26	73	2.879+02	1.418+07	1.761−04
25	160	1.878+02	1.226+08	3.240−04	26	77	2.722+02	1.889+06	2.798−05
25	161	1.878+02	2.387+08	1.894−03	26	79	2.694+02	6.311+06	9.153−05
25	162	1.868+02	6.843+08	3.581−03	26	81	2.663+02	1.227+08	8.694−04
25	163	1.864+02	5.501+07	1.433−04	26	82	2.664+02	1.581+08	1.681−03
25	164	1.863+02	1.659+09	8.635−03	26	85	2.641+02	2.652+07	1.849−04
25	166	1.859+02	9.280+08	4.810−03	26	88	2.596+02	1.107+09	1.118−02
25	167	1.853+02	1.824+10	1.408−01	26	89	2.565+02	7.033+06	6.937−05
25	168	1.851+02	3.026+07	7.773−05	26	90	2.557+02	5.346+06	6.989−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
26	92	2.503+02	8.932+05	1.119−05	26	176	1.810+02	1.081+08	3.540−04
26	95	2.455+02	4.735+07	4.278−04	26	177	1.804+02	3.379+10	2.197−01
26	96	2.451+02	6.994+06	8.400−05	26	179	1.776+02	1.283+10	6.069−02
26	97	2.448+02	4.816+06	2.886−05	26	180	1.776+02	4.390+09	1.384−02
26	99	2.403+02	1.489+08	8.590−04	26	186	1.736+02	4.235+09	2.552−02
26	102	2.362+02	5.430+07	3.028−04	26	195	1.691+02	2.655+10	1.518−01
26	104	2.351+02	2.968+08	2.459−03	26	198	1.642+02	1.010+09	2.724−03
26	106	2.330+02	3.500+07	1.899−04	26	200	1.632+02	7.778+10	3.108−01
26	107	2.327+02	2.682+07	1.452−04	26	203	1.622+02	4.692+10	1.234−01
26	108	2.323+02	2.847+08	2.303−03	26	209	1.575+02	1.246+11	3.090−01
26	109	2.320+02	2.131+08	2.293−03	26	216	1.540+02	8.307+10	2.953−01
26	110	2.317+02	7.082+07	5.699−04	26	221	1.532+02	5.991+09	1.405−02
26	112	2.310+02	2.006+07	1.069−04	26	228	1.518+02	4.331+08	1.996−03
26	113	2.293+02	3.069+08	3.227−03	26	236	1.489+02	8.597+09	2.857−02
26	114	2.292+02	8.104+07	6.385−04	27	32	7.893+02	1.963+05	1.833−05
26	116	2.279+02	3.117+08	3.237−03	27	33	7.704+02	4.782+05	8.509−05
26	117	2.257+02	9.104+08	9.267−03	27	40	5.009+02	2.678+06	1.008−04
26	119	2.229+02	2.391+07	1.187−04	27	42	4.988+02	5.123+05	3.822−05
26	121	2.219+02	4.118+06	3.039−05	27	45	4.556+02	2.324+07	1.446−03
26	123	2.184+02	3.556+08	3.389−03	27	47	4.278+02	2.757+08	7.563−03
26	125	2.172+02	6.208+07	4.391−04	27	48	4.107+02	2.289+08	1.158−02
26	130	2.142+02	9.152+07	8.390−04	27	60	3.360+02	1.204+06	4.074−05
26	132	2.136+02	6.658+06	4.552−05	27	67	3.225+02	6.658+05	1.038−05
26	134	2.126+02	1.374+07	9.309−05	27	81	2.890+02	5.128+06	1.284−04
26	135	2.126+02	6.493+08	5.867−03	27	84	2.874+02	5.047+08	6.250−03
26	137	2.091+02	1.016+09	4.440−03	27	85	2.864+02	2.735+08	6.728−03
26	138	2.081+02	9.537+07	8.258−04	27	97	2.639+02	1.680+06	3.507−05
26	141	2.030+02	3.965+08	2.449−03	27	99	2.585+02	1.212+09	2.428−02
26	142	2.017+02	4.852+08	1.973−03	27	100	2.573+02	3.409+08	3.384−03
26	144	1.997+02	1.881+08	1.500−03	27	102	2.539+02	5.426+05	1.048−05
26	145	1.982+02	1.152+07	6.785−05	27	103	2.533+02	8.789+07	8.454−04
26	146	1.976+02	1.235+08	4.822−04	27	106	2.501+02	2.494+07	4.679−04
26	149	1.971+02	1.984+09	1.541−02	27	107	2.499+02	1.579+08	2.956−03
26	150	1.964+02	6.549+08	3.787−03	27	111	2.484+02	1.804+09	1.669−02
26	151	1.958+02	2.404+09	1.842−02	27	112	2.478+02	9.646+06	1.776−04
26	152	1.953+02	1.761+08	6.712−04	27	118	2.394+02	2.618+08	2.250−03
26	153	1.942+02	7.731+08	4.370−03	27	119	2.385+02	2.642+07	4.507−04
26	157	1.908+02	3.959+09	2.162−02	27	124	2.325+02	7.729+07	1.253−03
26	158	1.908+02	2.069+08	1.506−03	27	126	2.315+02	2.792+08	2.243−03
26	159	1.907+02	1.150+08	4.178−04	27	129	2.284+02	1.052+07	8.229−05
26	161	1.898+02	2.979+06	1.609−05	27	131	2.280+02	2.774+07	4.325−04
26	162	1.888+02	6.130+07	2.184−04	27	133	2.268+02	4.860+09	3.747−02
26	164	1.883+02	5.762+08	2.042−03	27	137	2.228+02	5.778+09	8.600−02
26	166	1.879+02	5.159+07	1.820−04	27	142	2.144+02	1.168+07	1.609−04
26	169	1.855+02	8.600+08	2.958−03	27	146	2.098+02	5.927+07	7.824−04
26	170	1.852+02	2.971+09	1.528−02	27	147	2.096+02	8.465+07	5.577−04
26	171	1.849+02	1.731+09	1.182−02	27	152	2.072+02	2.240+07	2.883−04
26	172	1.841+02	1.349+09	6.855−03	27	154	2.059+02	1.096+08	6.968−04
26	174	1.838+02	1.376+08	4.649−04	27	159	2.020+02	1.427+07	1.746−04
26	175	1.831+02	5.907+09	2.969−02	27	160	2.010+02	5.779+06	3.500−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
27	162	1.999+02	1.646+07	1.972−04	28	124	2.477+02	2.062+07	1.896−04
27	163	1.994+02	1.334+08	7.954−04	28	126	2.465+02	8.581+07	3.910−04
27	164	1.993+02	4.515+08	5.380−03	28	129	2.431+02	3.593+07	1.591−04
27	168	1.979+02	6.023+08	3.538−03	28	132	2.424+02	7.040+06	9.305−05
27	169	1.962+02	4.274+07	4.933−04	28	133	2.412+02	1.423+09	6.207−03
27	173	1.943+02	5.723+07	3.241−04	28	134	2.412+02	6.119+06	8.006−05
27	174	1.944+02	8.760+06	9.922−05	28	137	2.367+02	2.986+09	2.508−02
27	176	1.912+02	7.445+06	8.161−05	28	141	2.289+02	1.209+09	1.425−02
27	180	1.874+02	6.237+06	6.566−05	28	142	2.272+02	3.306+08	2.559−03
27	198	1.726+02	5.331+09	4.761−02	28	145	2.228+02	1.442+07	1.609−04
27	201	1.712+02	1.118+11	4.914−01	28	146	2.221+02	8.221+06	6.079−05
27	203	1.704+02	8.783+10	7.643−01	28	147	2.219+02	4.684+06	1.729−05
27	208	1.669+02	6.287+10	2.625−01	28	150	2.205+02	1.437+08	1.572−03
27	209	1.652+02	6.064+10	4.960−01	28	152	2.191+02	3.912+06	2.816−05
27	221	1.604+02	5.709+08	4.405−03	28	153	2.178+02	1.604+08	1.710−03
27	268	1.447+02	3.729+10	2.342−01	28	154	2.177+02	9.342+07	3.320−04
27	277	1.426+02	1.976+10	6.025−02	28	157	2.136+02	5.148+08	5.280−03
28	37	6.977+02	1.652+05	1.808−05	28	159	2.134+02	5.759+08	3.931−03
28	40	5.771+02	9.303+05	2.322−05	28	160	2.122+02	8.226+06	2.778−05
28	41	5.749+02	3.228+06	2.399−04	28	161	2.123+02	1.492+08	1.511−03
28	44	5.317+02	7.070+07	4.494−03	28	163	2.105+02	3.037+08	1.008−03
28	45	5.177+02	2.764+07	1.111−03	28	166	2.099+02	2.651+08	1.751−03
28	46	5.044+02	1.215+07	6.952−04	28	167	2.090+02	8.368+07	8.222−04
28	47	4.821+02	2.361+07	4.114−04	28	168	2.088+02	2.952+08	9.649−04
28	48	4.606+02	2.112+07	6.716−04	28	169	2.069+02	3.259+08	2.092−03
28	60	3.686+02	4.590+07	9.350−04	28	170	2.065+02	2.632+09	2.524−02
28	61	3.658+02	5.213+07	1.569−03	28	172	2.052+02	8.110+08	7.678−03
28	65	3.560+02	9.805+05	2.794−05	28	173	2.048+02	3.360+06	1.057−05
28	71	3.483+02	3.815+05	1.041−05	28	174	2.049+02	3.275+08	2.060−03
28	81	3.128+02	6.253+07	9.170−04	28	175	2.039+02	1.448+07	1.354−04
28	84	3.110+02	1.018+09	7.374−03	28	176	2.014+02	3.516+07	2.137−04
28	85	3.098+02	5.333+08	7.673−03	28	179	1.972+02	3.897+09	3.407−02
28	88	3.036+02	2.293+07	4.752−04	28	180	1.971+02	2.901+09	1.689−02
28	97	2.836+02	1.366+06	1.647−05	28	194	1.874+02	1.219+08	9.630−04
28	99	2.775+02	6.814+08	7.864−03	28	198	1.808+02	1.464+09	7.173−03
28	100	2.760+02	7.755+07	4.430−04	28	200	1.796+02	2.590+10	1.879−01
28	102	2.720+02	5.892+06	6.537−05	28	201	1.793+02	2.522+10	6.079−02
28	103	2.714+02	3.559+07	1.965−04	28	203	1.784+02	3.568+10	1.702−01
28	104	2.706+02	1.295+07	2.133−04	28	208	1.746+02	7.541+09	1.723−02
28	106	2.678+02	3.165+07	3.402−04	28	209	1.727+02	1.915+10	8.560−02
28	107	2.675+02	4.152+07	4.454−04	28	216	1.684+02	1.201+11	7.661−01
28	108	2.669+02	1.214+06	1.943−05	28	221	1.675+02	2.210+10	9.297−02
28	110	2.661+02	5.144+07	8.190−04	28	236	1.624+02	1.402+09	8.311−03
28	111	2.658+02	8.006+08	4.240−03	28	268	1.505+02	2.064+11	7.005−01
28	112	2.651+02	1.655+07	1.744−04	28	277	1.482+02	1.928+10	3.173−02
28	114	2.629+02	3.843+06	5.971−05	29	40	6.015+02	5.593+05	3.033−05
28	118	2.555+02	8.346+07	4.085−04	29	42	5.984+02	1.617+06	1.737−04
28	119	2.545+02	7.491+06	7.275−05	29	45	5.373+02	4.006+07	3.467−03
28	121	2.532+02	3.908+06	5.634−05	29	47	4.990+02	1.345+07	5.021−04
28	122	2.495+02	1.166+06	1.632−05	29	48	4.760+02	3.875+07	2.632−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
29	60	3.784+02	1.116+08	4.794−03	30	45	5.425+02	2.527+06	7.433−05
29	69	3.578+02	8.570+05	3.290−05	30	46	5.278+02	2.475+05	1.034−05
29	81	3.198+02	2.456+07	7.531−04	30	48	4.800+02	5.318+06	1.225−04
29	84	3.179+02	5.929+08	8.983−03	30	55	4.331+02	4.448+06	1.251−04
29	85	3.167+02	1.565+08	4.706−03	30	56	4.244+02	3.567+06	1.284−04
29	99	2.830+02	2.773+08	6.657−03	30	60	3.810+02	1.734+06	2.515−05
29	100	2.815+02	1.540+08	1.830−03	30	61	3.780+02	4.166+07	8.924−04
29	102	2.774+02	2.952+06	6.808−05	30	63	3.685+02	1.751+06	4.751−05
29	103	2.767+02	2.830+07	3.248−04	30	70	3.592+02	1.691+06	4.362−05
29	106	2.729+02	4.314+06	9.634−05	30	77	3.303+02	2.652+07	5.782−04
29	107	2.726+02	5.914+07	1.318−03	30	79	3.261+02	5.303+07	1.127−03
29	111	2.708+02	4.371+08	4.806−03	30	81	3.216+02	2.394+08	2.475−03
29	118	2.602+02	7.020+07	7.126−04	30	82	3.217+02	1.323+07	2.053−04
29	119	2.591+02	1.752+07	3.528−04	30	85	3.185+02	2.081+09	2.109−02
29	124	2.521+02	6.324+06	1.205−04	30	88	3.119+02	7.532+06	1.098−04
29	126	2.509+02	5.614+07	5.298−04	30	96	2.912+02	3.094+06	5.245−05
29	129	2.473+02	5.145+06	4.717−05	30	97	2.908+02	2.050+06	1.733−05
29	131	2.468+02	8.038+05	1.468−05	30	99	2.844+02	7.829+08	6.329−03
29	133	2.453+02	1.301+09	1.174−02	30	102	2.787+02	7.489+06	5.815−05
29	137	2.407+02	7.143+08	1.241−02	30	104	2.772+02	2.605+07	3.001−04
29	142	2.309+02	7.500+08	1.199−02	30	106	2.742+02	1.759+07	1.322−04
29	146	2.256+02	1.018+06	1.553−05	30	107	2.739+02	3.403+07	2.552−04
29	147	2.254+02	1.942+06	1.480−05	30	108	2.733+02	4.221+06	4.726−05
29	152	2.226+02	1.804+08	2.679−03	30	109	2.729+02	2.734+07	4.071−04
29	154	2.211+02	6.224+07	4.561−04	30	110	2.725+02	3.391+07	3.773−04
29	159	2.166+02	7.910+08	1.113−02	30	112	2.715+02	1.648+07	1.214−04
29	160	2.155+02	4.687+08	3.262−03	30	113	2.692+02	1.000+08	1.449−03
29	162	2.142+02	1.463+08	2.013−03	30	114	2.691+02	4.362+06	4.735−05
29	163	2.136+02	4.106+07	2.810−04	30	116	2.673+02	5.076+07	7.249−04
29	164	2.135+02	1.630+09	2.229−02	30	117	2.642+02	1.021+08	1.424−03
29	166	2.130+02	3.000+07	4.082−04	30	119	2.604+02	5.884+06	3.986−05
29	168	2.119+02	4.304+08	2.898−03	30	122	2.551+02	2.291+06	2.235−05
29	169	2.100+02	3.091+08	4.086−03	30	123	2.542+02	1.680+07	2.171−04
29	173	2.078+02	2.193+07	1.420−04	30	124	2.532+02	1.296+07	8.303−05
29	174	2.078+02	2.700+08	3.497−03	30	125	2.526+02	1.084+06	1.038−05
29	176	2.042+02	5.299+06	6.628−05	30	130	2.485+02	2.598+07	3.208−04
29	180	1.999+02	6.407+09	7.674−02	30	132	2.477+02	5.564+06	5.119−05
29	198	1.831+02	2.978+10	2.995−01	30	134	2.464+02	1.919+06	1.747−05
29	201	1.816+02	1.271+10	6.283−02	30	135	2.464+02	6.506+07	7.899−04
29	203	1.806+02	7.982+08	7.808−03	30	137	2.417+02	1.377+09	8.043−03
29	208	1.767+02	1.123+10	5.259−02	30	138	2.404+02	5.835+07	6.743−04
29	209	1.748+02	1.442+09	1.321−02	30	141	2.336+02	4.618+08	3.778−03
29	221	1.695+02	1.044+11	8.997−01	30	142	2.319+02	2.137+07	1.148−04
29	268	1.521+02	3.380+10	2.344−01	30	144	2.293+02	4.107+08	4.317−03
29	277	1.497+02	1.619+11	5.443−01	30	145	2.273+02	2.964+07	2.295−04
30	36	7.641+02	7.595+05	8.864−05	30	146	2.265+02	1.040+07	5.336−05
30	39	6.134+02	8.126+05	6.112−05	30	149	2.259+02	2.323+09	2.369−02
30	41	6.055+02	4.125+05	2.267−05	30	150	2.249+02	2.913+07	2.209−04
30	43	5.717+02	7.019+07	4.586−03	30	151	2.241+02	1.524+09	1.530−02
30	44	5.578+02	1.516+07	7.071−04	30	152	2.234+02	1.456+07	7.267−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
30	153	2.220+02	3.864+08	2.855−03	31	99	2.983+02	1.784+08	2.380−03
30	156	2.189+02	1.168+08	1.119−03	31	100	2.967+02	1.131+08	7.459−04
30	157	2.177+02	1.165+08	8.274−04	31	102	2.921+02	3.425+06	4.381−05
30	158	2.176+02	3.214+08	3.041−03	31	103	2.913+02	2.833+07	1.802−04
30	159	2.174+02	1.489+08	7.037−04	31	104	2.904+02	5.508+06	1.045−04
30	161	2.163+02	5.461+06	3.831−05	31	106	2.871+02	9.541+05	1.179−05
30	162	2.150+02	3.116+06	1.440−05	31	107	2.868+02	4.593+07	5.664−04
30	164	2.144+02	4.844+07	2.225−04	31	108	2.861+02	3.132+07	5.765−04
30	166	2.138+02	3.004+07	1.373−04	31	110	2.852+02	1.174+08	2.148−03
30	167	2.130+02	5.668+06	3.854−05	31	111	2.849+02	3.505+08	2.132−03
30	169	2.108+02	2.213+08	9.823−04	31	114	2.815+02	1.228+07	2.189−04
30	170	2.104+02	1.068+09	7.087−03	31	118	2.731+02	3.989+07	2.230−04
30	171	2.099+02	1.240+09	1.092−02	31	119	2.720+02	6.202+06	6.876−05
30	172	2.090+02	6.655+08	4.356−03	31	121	2.705+02	1.217+06	2.002−05
30	174	2.086+02	3.262+07	1.419−04	31	122	2.662+02	1.893+07	3.017−04
30	175	2.076+02	5.933+06	3.835−05	31	124	2.641+02	5.947+06	6.220−05
30	176	2.050+02	2.557+07	1.074−04	31	125	2.635+02	4.045+07	6.318−04
30	179	2.006+02	4.856+08	2.931−03	31	126	2.629+02	3.125+07	1.618−04
30	180	2.006+02	1.292+08	5.197−04	31	129	2.589+02	3.231+06	1.624−05
30	186	1.956+02	7.783+08	5.951−03	31	132	2.582+02	2.157+07	3.234−04
30	194	1.906+02	7.786+08	4.238−03	31	133	2.568+02	5.799+08	2.867−03
30	195	1.899+02	6.742+08	4.858−03	31	137	2.517+02	4.253+08	4.040−03
30	198	1.837+02	1.104+08	3.723−04	31	141	2.429+02	2.601+07	3.451−04
30	200	1.825+02	1.068+10	5.330−02	31	142	2.410+02	1.293+08	1.126−03
30	203	1.812+02	2.168+10	7.113−02	31	145	2.360+02	3.632+07	4.550−04
30	209	1.754+02	1.338+10	4.113−02	31	146	2.353+02	1.278+06	1.061−05
30	216	1.710+02	3.655+10	1.602−01	31	150	2.335+02	3.966+07	4.864−04
30	221	1.700+02	2.069+08	5.976−04	31	152	2.319+02	1.839+07	1.483−04
30	228	1.684+02	2.457+11	1.392+00	31	153	2.304+02	2.553+09	3.048−02
30	236	1.647+02	6.580+09	2.677−02	31	154	2.304+02	2.962+07	1.178−04
30	268	1.525+02	2.191+11	5.091−01	31	157	2.257+02	6.630+07	7.596−04
31	37	8.464+02	2.859+05	4.606−05	31	159	2.255+02	7.646+07	5.828−04
31	41	6.722+02	3.848+05	3.910−05	31	160	2.242+02	2.938+07	1.107−04
31	42	6.714+02	1.852+05	1.251−05	31	161	2.242+02	4.885+08	5.525−03
31	44	6.139+02	2.549+06	2.161−04	31	163	2.223+02	5.934+07	2.197−04
31	45	5.954+02	2.888+06	1.535−04	31	164	2.222+02	2.780+08	2.057−03
31	46	5.778+02	5.132+07	3.853−03	31	166	2.216+02	6.322+07	4.654−04
31	48	5.210+02	5.041+06	2.052−04	31	167	2.207+02	9.016+08	9.872−03
31	55	4.662+02	1.976+07	9.657−04	31	168	2.204+02	9.348+06	3.405−05
31	60	4.064+02	2.901+07	7.181−04	31	169	2.183+02	7.633+07	5.453−04
31	61	4.029+02	1.287+07	4.699−04	31	170	2.179+02	1.544+06	1.648−05
31	68	3.844+02	4.397+05	1.461−05	31	172	2.164+02	1.378+07	1.451−04
31	73	3.754+02	4.161+05	1.318−05	31	173	2.160+02	5.245+07	1.834−04
31	81	3.395+02	1.468+07	2.537−04	31	174	2.160+02	7.144+07	4.997−04
31	82	3.396+02	4.348+07	1.128−03	31	175	2.150+02	9.566+08	9.940−03
31	84	3.374+02	1.729+09	1.476−02	31	176	2.121+02	7.649+06	5.159−05
31	85	3.360+02	4.284+08	7.251−03	31	179	2.075+02	1.356+09	1.313−02
31	88	3.287+02	9.694+06	2.355−04	31	180	2.074+02	7.274+08	4.690−03
31	89	3.237+02	1.036+06	2.441−05	31	194	1.967+02	5.574+07	4.849−04
31	95	3.064+02	2.674+06	5.644−05	31	198	1.894+02	5.216+09	2.806−02

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
31	200	1.881+02	4.170+09	3.319−02	33	233	1.981+02	7.519+07	6.638−04
31	201	1.878+02	1.209+10	3.196−02	33	234	1.977+02	5.257+06	3.081−05
31	203	1.868+02	2.306+09	1.206−02	33	238	1.941+02	2.676+09	2.268−02
31	208	1.826+02	6.619+09	1.654−02	33	239	1.931+02	3.284+09	1.837−02
31	209	1.805+02	2.857+09	1.396−02	33	241	1.923+02	5.050+07	1.400−04
31	216	1.759+02	2.036+08	1.417−03	33	242	1.924+02	1.518+09	4.212−03
31	221	1.749+02	2.474+10	1.134−01	33	244	1.916+02	1.140+09	9.407−03
31	236	1.693+02	2.302+11	1.484+00	33	245	1.914+02	9.079+08	4.984−03
31	268	1.564+02	1.428+09	5.236−03	33	249	1.844+02	1.631+09	8.312−03
31	277	1.539+02	2.892+11	5.136−01	33	250	1.844+02	9.294+08	7.107−03
32	181	2.439+02	1.904+06	1.698−05	33	251	1.842+02	8.618+08	2.193−03
32	182	2.437+02	3.657+06	6.513−05	33	254	1.822+02	4.816+07	2.396−04
32	189	2.346+02	3.009+07	2.483−04	33	255	1.821+02	4.529+07	3.376−04
32	191	2.346+02	1.365+07	2.251−04	33	258	1.808+02	9.044+08	2.216−03
32	210	2.086+02	2.107+06	1.375−05	33	259	1.806+02	8.842+07	6.488−04
32	211	2.081+02	1.319+07	1.712−04	33	260	1.805+02	3.634+09	2.661−02
32	214	2.034+02	1.108+06	1.375−05	33	263	1.801+02	1.299+08	6.320−04
32	224	2.003+02	6.338+06	7.622−05	33	265	1.792+02	6.146+07	4.438−04
32	230	1.981+02	3.995+06	2.351−05	33	266	1.786+02	2.225+08	5.322−04
32	232	1.973+02	3.330+06	1.943−05	33	274	1.759+02	1.405+07	6.520−05
32	234	1.965+02	1.942+07	2.249−04	33	276	1.755+02	2.786+07	1.929−04
32	235	1.951+02	3.958+06	4.517−05	33	280	1.734+02	6.318+09	1.424−02
32	239	1.920+02	1.933+09	2.137−02	33	281	1.729+02	1.197+10	5.368−02
32	241	1.911+02	2.337+08	1.280−03	33	282	1.719+02	1.319+10	5.845−02
32	242	1.913+02	6.054+09	3.320−02	33	283	1.716+02	3.220+10	2.131−01
32	245	1.902+02	5.692+08	6.176−03	33	284	1.701+02	9.366+08	2.032−03
32	249	1.834+02	1.023+09	1.032−02	33	287	1.691+02	3.018+07	6.471−05
32	251	1.832+02	3.597+09	1.810−02	34	178	2.536+02	1.230+06	1.186−05
32	254	1.812+02	2.454+06	2.415−05	34	182	2.491+02	8.342+06	5.171−05
32	258	1.798+02	1.165+09	5.646−03	34	183	2.488+02	8.314+06	7.714−05
32	263	1.791+02	3.582+09	3.447−02	34	184	2.484+02	1.177+06	1.451−05
32	266	1.776+02	8.288+08	3.920−03	34	192	2.394+02	1.648+06	1.416−05
32	274	1.750+02	1.007+07	9.245−05	34	193	2.394+02	3.356+06	3.846−05
32	280	1.725+02	3.351+10	1.494−01	34	197	2.297+02	2.896+06	2.292−05
32	281	1.720+02	1.391+10	1.235−01	34	211	2.119+02	8.140+07	3.655−04
32	282	1.710+02	4.355+09	3.818−02	34	212	2.113+02	2.554+08	1.710−03
32	284	1.692+02	2.696+09	1.158−02	34	215	2.065+02	3.544+06	2.265−05
33	178	2.500+02	7.239+05	1.017−05	34	218	2.060+02	5.150+07	4.370−04
33	181	2.457+02	2.140+07	9.686−05	34	222	2.045+02	3.864+06	3.231−05
33	182	2.456+02	5.375+06	4.860−05	34	223	2.044+02	1.016+08	8.485−04
33	189	2.363+02	3.612+06	1.512−05	34	224	2.039+02	5.018+06	2.084−05
33	191	2.363+02	1.037+07	8.678−05	34	226	2.032+02	3.876+07	2.400−04
33	192	2.362+02	1.097+07	1.376−04	34	229	2.023+02	2.600+07	1.064−04
33	210	2.100+02	1.888+08	6.238−04	34	231	2.014+02	2.108+08	1.709−03
33	211	2.094+02	1.266+08	8.324−04	34	233	2.004+02	7.982+07	4.805−04
33	213	2.053+02	9.714+06	9.208−05	34	234	2.000+02	3.757+07	1.501−04
33	215	2.041+02	6.682+06	6.259−05	34	237	1.971+02	3.609+09	2.803−02
33	226	2.009+02	2.150+06	1.951−05	34	238	1.963+02	1.657+09	9.569−03
33	230	1.994+02	6.481+06	1.931−05	34	239	1.953+02	4.043+08	1.541−03
33	232	1.985+02	8.368+06	2.472−05	34	243	1.942+02	1.363+09	1.027−02

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
34	244	1.937+02	6.357+08	3.575−03	36	192	2.583+02	2.798+06	2.099−05
34	245	1.935+02	1.048+08	3.920−04	36	193	2.584+02	1.985+06	1.986−05
34	249	1.863+02	1.951+08	6.772−04	36	197	2.471+02	3.027+06	2.077−05
34	250	1.864+02	7.018+08	3.654−03	36	204	2.373+02	5.805+06	6.125−05
34	252	1.856+02	1.783+09	1.228−02	36	205	2.363+02	4.136+06	3.461−05
34	254	1.841+02	1.433+07	4.852−05	36	206	2.356+02	2.438+06	1.521−05
34	255	1.840+02	1.365+08	6.926−04	36	212	2.259+02	4.240+07	2.434−04
34	259	1.825+02	1.066+07	5.324−05	36	215	2.204+02	8.830+07	4.822−04
34	260	1.823+02	3.322+08	1.656−03	36	218	2.199+02	4.295+08	3.113−03
34	263	1.820+02	3.782+08	1.252−03	36	219	2.198+02	4.828+08	4.373−03
34	265	1.810+02	8.325+06	4.090−05	36	220	2.192+02	1.734+09	1.562−02
34	267	1.804+02	3.410+07	2.219−04	36	222	2.182+02	3.529+08	2.518−03
34	269	1.795+02	3.993+07	2.571−04	36	223	2.180+02	2.972+07	2.118−04
34	275	1.777+02	5.216+07	3.291−04	36	225	2.169+02	8.786+06	4.648−05
34	276	1.773+02	1.120+07	5.274−05	36	226	2.167+02	8.075+07	4.263−04
34	281	1.746+02	2.054+09	6.263−03	36	231	2.146+02	2.592+07	1.790−04
34	282	1.736+02	3.548+07	1.069−04	36	233	2.135+02	6.070+06	3.110−05
34	283	1.732+02	1.330+10	5.987−02	36	237	2.097+02	2.316+08	1.527−03
34	285	1.717+02	4.707+10	2.774−01	36	238	2.088+02	1.070+07	5.246−05
35	184	2.664+02	5.251+06	4.470−05	36	243	2.064+02	4.725+08	3.018−03
35	188	2.569+02	1.216+06	1.445−05	36	244	2.059+02	1.842+08	8.778−04
35	190	2.565+02	2.924+06	2.883−05	36	250	1.976+02	3.877+07	1.702−04
35	202	2.369+02	3.395+06	3.427−05	36	252	1.968+02	7.981+07	4.634−04
35	204	2.354+02	2.538+06	2.109−05	36	256	1.944+02	2.957+07	2.094−04
35	217	2.186+02	2.144+09	1.844−02	36	257	1.938+02	1.404+08	7.905−04
35	218	2.183+02	4.647+07	2.656−04	36	259	1.933+02	4.506+07	1.893−04
35	219	2.183+02	2.243+08	1.602−03	36	260	1.931+02	1.767+08	7.406−04
35	220	2.176+02	5.871+08	4.169−03	36	261	1.930+02	4.198+08	2.345−03
35	223	2.165+02	1.111+08	6.246−04	36	262	1.930+02	3.348+09	2.338−02
35	227	2.149+02	6.175+07	4.277−04	36	265	1.916+02	2.048+07	8.456−05
35	231	2.131+02	1.025+07	5.585−05	36	267	1.909+02	9.463+07	5.171−04
35	237	2.083+02	8.938+07	4.651−04	36	269	1.899+02	2.198+06	1.188−05
35	240	2.062+02	2.814+08	1.793−03	36	270	1.898+02	1.886+08	1.274−03
35	243	2.050+02	9.712+07	4.896−04	36	272	1.888+02	1.254+07	8.373−05
35	252	1.955+02	2.747+08	1.259−03	36	275	1.879+02	1.840+07	9.738−05
35	253	1.944+02	1.938+07	1.318−04	36	278	1.866+02	2.023+08	1.056−03
35	256	1.931+02	5.298+06	2.962−05	36	279	1.855+02	5.018+08	3.235−03
35	257	1.926+02	5.550+06	2.469−05	36	283	1.829+02	4.400+09	1.656−02
35	261	1.918+02	1.516+07	6.690−05	36	285	1.812+02	4.952+08	2.438−03
35	262	1.918+02	5.222+08	2.880−03	36	286	1.811+02	1.818+08	1.118−03
35	264	1.916+02	5.382+09	3.553−02	37	182	2.722+02	4.848+06	3.591−05
35	267	1.897+02	2.108+07	9.101−05	37	191	2.609+02	5.443+06	3.702−05
35	270	1.887+02	1.422+08	7.587−04	37	196	2.515+02	7.070+06	4.468−05
35	271	1.879+02	1.666+08	1.059−03	37	205	2.383+02	5.474+06	6.215−05
35	272	1.876+02	2.826+06	1.492−05	37	206	2.376+02	5.766+06	4.880−05
35	278	1.854+02	1.782+07	7.350−05	37	207	2.371+02	3.117+06	1.752−05
35	279	1.843+02	3.268+07	1.665−04	37	211	2.285+02	4.281+07	2.235−04
35	285	1.801+02	4.790+09	1.864−02	37	212	2.278+02	2.325+07	1.809−04
35	286	1.801+02	1.366+07	6.637−05	37	213	2.236+02	1.853+06	1.389−05
36	183	2.692+02	7.124+06	5.807−05	37	214	2.229+02	7.640+07	3.792−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
37	215	2.222+02	3.062+08	2.266−03	38	251	2.002+02	4.202+07	1.262−04
37	218	2.217+02	1.319+07	1.296−04	38	254	1.978+02	2.730+07	1.601−04
37	222	2.199+02	2.102+09	2.033−02	38	255	1.977+02	1.982+06	1.741−05
37	223	2.198+02	1.720+08	1.661−03	38	258	1.962+02	3.397+07	9.799−05
37	225	2.187+02	3.636+08	2.606−03	38	259	1.960+02	1.560+09	1.347−02
37	229	2.173+02	3.639+07	1.718−04	38	260	1.958+02	5.013+07	4.321−04
37	233	2.151+02	1.508+06	1.047−05	38	263	1.954+02	5.066+07	2.900−04
37	237	2.114+02	6.897+06	6.159−05	38	265	1.943+02	5.598+08	4.750−03
37	238	2.104+02	3.401+08	2.257−03	38	266	1.936+02	7.333+07	2.060−04
37	243	2.080+02	1.352+06	1.169−05	38	274	1.904+02	2.634+08	1.432−03
37	244	2.074+02	6.104+08	3.937−03	38	276	1.899+02	1.810+08	1.469−03
37	245	2.072+02	2.318+08	9.946−04	38	280	1.875+02	4.408+09	1.161−02
37	249	1.990+02	1.623+07	6.426−05	38	281	1.869+02	5.872+08	3.077−03
37	250	1.991+02	3.843+07	2.282−04	38	282	1.858+02	4.143+08	2.143−03
37	255	1.963+02	2.036+07	1.177−04	38	283	1.853+02	7.912+06	6.112−05
37	257	1.952+02	5.586+08	4.254−03	38	284	1.837+02	1.121+09	2.835−03
37	259	1.947+02	3.102+08	1.762−03	39	183	2.948+02	1.658+06	1.620−05
37	260	1.945+02	1.006+08	5.705−04	39	184	2.942+02	6.346+06	8.233−05
37	261	1.944+02	1.499+09	1.132−02	39	190	2.821+02	1.009+06	1.505−05
37	263	1.941+02	1.868+08	7.034−04	39	197	2.684+02	6.205+06	5.026−05
37	265	1.930+02	1.138+08	6.354−04	39	204	2.569+02	3.941+06	4.874−05
37	267	1.923+02	4.672+08	3.452−03	39	205	2.557+02	1.675+06	1.641−05
37	269	1.912+02	4.528+06	3.310−05	39	212	2.436+02	9.615+08	6.417−03
37	274	1.892+02	9.910+06	3.546−05	39	213	2.389+02	2.772+06	1.778−05
37	275	1.892+02	5.737+07	4.103−04	39	215	2.372+02	1.422+07	8.995−05
37	276	1.887+02	2.958+08	1.579−03	39	218	2.366+02	8.158+07	6.848−04
37	278	1.879+02	3.949+08	2.785−03	39	219	2.366+02	4.580+08	4.803−03
37	281	1.858+02	2.242+09	7.733−03	39	220	2.358+02	6.812+07	7.099−04
37	282	1.846+02	2.050+09	6.981−03	39	222	2.346+02	1.054+07	8.701−05
37	283	1.842+02	9.172+08	4.664−03	39	223	2.345+02	6.305+07	5.196−04
37	285	1.824+02	1.556+06	1.035−05	39	226	2.329+02	7.727+06	4.713−05
38	181	2.750+02	1.769+06	1.003−05	39	227	2.327+02	1.253+07	1.271−04
38	189	2.633+02	8.308+06	4.318−05	39	231	2.305+02	5.287+06	4.213−05
38	196	2.537+02	2.542+06	2.452−05	39	233	2.292+02	4.712+06	2.783−05
38	206	2.396+02	3.458+06	4.463−05	39	237	2.249+02	7.203+08	5.462−03
38	207	2.391+02	9.591+06	8.221−05	39	238	2.238+02	3.164+08	1.783−03
38	210	2.310+02	2.388+07	9.548−05	39	240	2.224+02	1.154+09	1.070−02
38	211	2.303+02	2.174+07	1.729−04	39	243	2.211+02	8.301+06	6.082−05
38	212	2.296+02	1.848+06	2.191−05	39	244	2.204+02	4.322+07	2.361−04
38	214	2.246+02	2.178+08	1.647−03	39	250	2.110+02	1.813+08	9.075−04
38	215	2.239+02	2.021+06	2.278−05	39	252	2.101+02	2.184+08	1.445−03
38	225	2.203+02	2.409+09	2.630−02	39	255	2.080+02	8.084+07	3.931−04
38	226	2.201+02	9.683+06	1.055−04	39	256	2.073+02	2.196+06	1.769−05
38	230	2.182+02	1.048+07	3.739−05	39	257	2.067+02	1.210+07	7.747−05
38	238	2.119+02	1.310+07	1.323−04	39	260	2.059+02	1.402+08	6.684−04
38	239	2.108+02	3.320+08	2.211−03	39	261	2.058+02	5.458+07	3.465−04
38	242	2.099+02	4.066+07	1.343−04	39	262	2.058+02	1.260+08	9.998−04
38	244	2.089+02	1.456+06	1.429−05	39	265	2.042+02	2.602+07	1.220−04
38	245	2.087+02	7.688+08	5.018−03	39	267	2.034+02	2.060+07	1.277−04
38	249	2.004+02	2.470+07	1.487−04	39	269	2.022+02	7.141+07	4.379−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
39	270	2.022+02	2.429+08	1.861−03	41	225	2.343+02	4.070+06	3.351−05
39	272	2.010+02	5.923+07	4.484−04	41	226	2.341+02	2.345+07	1.926−04
39	275	1.999+02	9.464+07	5.672−04	41	229	2.328+02	5.437+06	2.946−05
39	276	1.994+02	1.563+07	6.990−05	41	231	2.317+02	1.591+07	1.707−04
39	278	1.985+02	4.726+08	2.791−03	41	233	2.303+02	1.767+06	1.406−05
39	279	1.972+02	5.954+09	4.340−02	41	235	2.278+02	2.518+06	1.306−05
39	285	1.924+02	1.017+09	5.644−03	41	237	2.260+02	9.023+06	9.211−05
39	286	1.923+02	9.950+06	6.898−05	41	238	2.249+02	4.929+08	3.738−03
40	182	2.964+02	1.291+06	3.402−05	41	239	2.236+02	4.611+08	2.304−03
40	189	2.830+02	1.298+07	1.559−04	41	243	2.221+02	1.543+09	1.522−02
40	191	2.830+02	6.947+06	1.668−04	41	244	2.215+02	1.930+07	1.419−04
40	196	2.720+02	5.796+07	1.285−03	41	245	2.212+02	3.283+07	1.606−04
40	207	2.553+02	1.273+07	2.488−04	41	249	2.119+02	1.694+08	7.606−04
40	210	2.460+02	7.953+08	7.217−03	41	250	2.120+02	6.007+07	4.046−04
40	211	2.453+02	8.973+07	1.619−03	41	254	2.090+02	5.298+07	2.314−04
40	214	2.388+02	5.351+07	9.148−04	41	255	2.089+02	7.877+07	5.152−04
40	229	2.325+02	1.626+06	2.635−05	41	257	2.076+02	4.808+07	4.141−04
40	239	2.233+02	3.118+06	4.661−05	41	259	2.070+02	1.060+08	6.811−04
40	241	2.221+02	2.450+07	1.812−04	41	260	2.068+02	2.665+06	1.708−05
40	242	2.223+02	3.554+08	2.632−03	41	261	2.067+02	1.837+08	1.569−03
40	245	2.209+02	1.561+09	2.283−02	41	263	2.063+02	1.344+08	5.717−04
40	249	2.116+02	1.363+07	1.831−04	41	265	2.051+02	1.202+08	7.580−04
40	251	2.114+02	1.737+07	1.164−04	41	269	2.031+02	2.963+08	2.444−03
40	254	2.087+02	5.780+08	7.552−03	41	274	2.008+02	8.920+07	3.596−04
40	258	2.069+02	2.154+07	1.383−04	41	275	2.008+02	8.851+08	7.133−03
40	263	2.061+02	2.709+07	3.449−04	41	276	2.003+02	1.202+09	7.231−03
40	266	2.041+02	1.831+07	1.143−04	41	278	1.993+02	4.707+09	3.738−02
40	274	2.006+02	4.680+09	5.645−02	41	281	1.970+02	5.815+06	2.255−05
40	280	1.973+02	7.697+07	4.491−04	41	282	1.956+02	3.634+07	1.390−04
40	281	1.967+02	4.670+07	5.417−04	41	283	1.952+02	5.726+08	3.270−03
40	282	1.954+02	1.740+08	1.991−03	41	285	1.932+02	3.294+08	2.458−03
40	284	1.931+02	2.524+08	1.411−03	42	182	2.972+02	1.768+06	2.341−05
41	182	2.970+02	1.891+06	1.667−05	42	183	2.968+02	2.064+06	4.089−05
41	183	2.966+02	4.486+06	5.918−05	42	189	2.837+02	9.001+06	5.432−05
41	184	2.960+02	9.271+05	1.624−05	42	191	2.836+02	5.738+06	6.920−05
41	191	2.835+02	3.022+06	2.427−05	42	192	2.835+02	4.881+06	8.824−05
41	192	2.834+02	2.817+06	3.391−05	42	196	2.726+02	5.148+06	5.735−05
41	193	2.835+02	2.375+06	3.815−05	42	197	2.701+02	2.184+07	3.582−04
41	196	2.724+02	1.394+07	1.034−04	42	206	2.564+02	1.061+07	1.568−04
41	197	2.699+02	9.768+05	1.067−05	42	207	2.558+02	5.964+06	5.852−05
41	205	2.571+02	7.896+06	1.043−04	42	210	2.465+02	6.674+08	3.041−03
41	206	2.562+02	4.394+06	4.326−05	42	211	2.458+02	5.310+08	4.811−03
41	211	2.457+02	7.739+08	4.670−03	42	212	2.450+02	3.562+07	4.808−04
41	212	2.449+02	3.184+08	2.863−03	42	214	2.393+02	1.554+07	1.333−04
41	213	2.401+02	4.342+06	3.752−05	42	215	2.385+02	7.838+07	1.002−03
41	214	2.392+02	4.982+06	2.848−05	42	225	2.344+02	1.319+07	1.630−04
41	215	2.384+02	2.452+07	2.089−04	42	226	2.342+02	6.822+06	8.413−05
41	218	2.378+02	1.591+08	1.799−03	42	229	2.329+02	3.848+06	3.130−05
41	222	2.358+02	4.854+06	5.395−05	42	232	2.309+02	2.898+06	1.158−05
41	223	2.356+02	1.755+07	1.948−04	42	233	2.304+02	3.472+06	4.145−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
42	238	2.250+02	1.071+07	1.219−04	43	286	1.968+02	1.727+08	1.254−03
42	239	2.237+02	4.484+08	3.364−03	44	196	2.833+02	1.919+08	1.540−03
42	241	2.225+02	3.074+07	1.141−04	44	197	2.806+02	3.157+07	3.727−04
42	242	2.227+02	5.427+08	2.017−03	44	211	2.546+02	3.941+06	2.552−05
42	244	2.216+02	1.579+09	1.743−02	44	212	2.537+02	2.574+06	2.483−05
42	245	2.213+02	9.942+07	7.299−04	44	215	2.467+02	2.958+06	2.699−05
42	249	2.120+02	1.889+07	1.273−04	44	218	2.461+02	3.546+06	4.293−05
42	250	2.120+02	1.729+07	1.749−04	44	224	2.429+02	5.752+06	3.393−05
42	251	2.118+02	9.523+07	3.202−04	44	235	2.354+02	1.038+07	5.744−05
42	254	2.091+02	1.509+08	9.895−04	44	237	2.334+02	4.166+06	4.537−05
42	255	2.090+02	1.846+08	1.812−03	44	238	2.323+02	1.364+07	1.104−04
42	258	2.073+02	2.741+07	8.828−05	44	239	2.309+02	3.613+07	1.925−04
42	259	2.071+02	2.527+08	2.436−03	44	243	2.293+02	1.504+07	1.581−04
42	260	2.069+02	2.089+07	2.011−04	44	244	2.286+02	6.152+06	4.822−05
42	263	2.064+02	2.748+07	1.756−04	44	246	2.209+02	3.795+06	2.777−05
42	265	2.052+02	9.998+07	9.464−04	44	247	2.206+02	5.415+06	2.633−05
42	266	2.044+02	1.086+08	3.402−04	44	250	2.185+02	5.228+07	3.742−04
42	274	2.009+02	1.625+09	9.831−03	44	252	2.175+02	5.904+06	5.583−05
42	276	2.004+02	5.013+09	4.525−02	44	255	2.152+02	5.399+08	3.749−03
42	281	1.970+02	8.729+07	5.080−04	44	257	2.139+02	1.104+07	1.009−04
42	282	1.957+02	2.048+08	1.175−03	44	259	2.132+02	3.532+07	2.408−04
42	283	1.952+02	3.545+08	3.039−03	44	260	2.130+02	5.759+06	3.917−05
42	284	1.934+02	9.332+07	2.616−04	44	261	2.129+02	1.624+08	1.472−03
43	197	2.772+02	5.012+08	4.331−03	44	265	2.112+02	4.475+08	2.993−03
43	212	2.509+02	1.890+07	1.338−04	44	267	2.104+02	1.192+09	1.055−02
43	213	2.458+02	1.682+06	1.143−05	44	269	2.091+02	7.941+08	6.941−03
43	218	2.435+02	4.476+06	3.977−05	44	274	2.067+02	3.603+07	1.538−04
43	219	2.434+02	2.232+06	2.478−05	44	275	2.067+02	4.108+08	3.507−03
43	220	2.426+02	4.061+06	4.481−05	44	276	2.061+02	5.600+06	3.567−05
43	222	2.414+02	3.321+06	2.901−05	44	278	2.051+02	1.671+08	1.405−03
43	237	2.311+02	2.726+06	2.182−05	44	281	2.026+02	1.747+08	7.165−04
43	238	2.299+02	3.998+06	2.377−05	44	282	2.012+02	2.762+07	1.117−04
43	240	2.284+02	2.597+07	2.540−04	44	283	2.007+02	1.556+08	9.397−04
43	243	2.270+02	2.670+06	2.064−05	44	285	1.986+02	8.097+07	6.386−04
43	246	2.188+02	3.851+07	2.073−04	45	196	2.875+02	1.605+08	1.988−03
43	250	2.164+02	4.246+07	2.237−04	45	197	2.847+02	3.462+08	6.310−03
43	252	2.155+02	9.150+06	6.368−05	45	215	2.498+02	6.471+06	9.082−05
43	255	2.132+02	6.270+07	3.205−04	45	224	2.460+02	4.528+06	4.107−05
43	260	2.110+02	3.828+07	1.917−04	45	225	2.454+02	3.676+06	4.978−05
43	262	2.110+02	7.169+06	5.980−05	45	235	2.382+02	1.221+07	1.038−04
43	265	2.093+02	4.955+06	2.440−05	45	238	2.351+02	7.530+06	9.355−05
43	269	2.072+02	4.580+07	2.949−04	45	242	2.325+02	1.802+07	7.304−05
43	270	2.071+02	2.571+08	2.067−03	45	244	2.313+02	8.381+06	1.008−04
43	272	2.059+02	2.876+08	2.285−03	45	245	2.310+02	4.877+06	3.902−05
43	275	2.048+02	1.640+08	1.031−03	45	249	2.209+02	2.431+07	1.779−04
43	276	2.043+02	8.360+07	3.922−04	45	250	2.210+02	5.884+07	6.459−04
43	278	2.033+02	1.190+07	7.371−05	45	254	2.178+02	6.250+08	4.444−03
43	279	2.020+02	5.269+07	4.028−04	45	255	2.176+02	1.433+09	1.526−02
43	283	1.990+02	7.162+07	3.188−04	45	258	2.158+02	8.151+07	2.846−04
43	285	1.969+02	3.257+08	1.893−03	45	259	2.156+02	3.694+08	3.861−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
45	260	2.153+02	1.410+07	1.470−04	47	247	2.304+02	6.063+06	9.650−05
45	265	2.135+02	2.227+09	2.283−02	47	249	2.281+02	1.095+08	1.709−03
45	266	2.127+02	1.304+08	4.421−04	47	254	2.248+02	3.087+09	4.675−02
45	274	2.089+02	2.550+06	1.668−05	47	258	2.227+02	5.366+08	3.988−03
45	280	2.053+02	7.313+07	2.311−04	47	263	2.216+02	1.294+06	1.906−05
45	281	2.047+02	2.752+07	1.729−04	47	266	2.193+02	6.959+08	5.019−03
45	282	2.032+02	1.093+08	6.771−04	47	274	2.153+02	7.256+08	1.008−02
45	283	2.028+02	4.923+06	4.552−05	47	280	2.115+02	2.319+08	1.556−03
45	284	2.008+02	9.147+08	2.764−03	47	281	2.109+02	4.350+06	5.799−05
46	196	2.918+02	3.082+07	2.622−04	47	282	2.093+02	1.772+06	2.328−05
46	197	2.889+02	5.038+06	6.303−05	47	284	2.067+02	8.051+08	5.157−03
46	211	2.613+02	6.813+06	4.650−05	47	287	2.052+02	5.401+06	3.410−05
46	212	2.604+02	2.674+06	2.718−05	48	196	3.088+02	6.372+08	9.107−03
46	215	2.531+02	1.330+06	1.277−05	48	197	3.055+02	3.125+09	6.560−02
46	222	2.501+02	1.931+06	2.415−05	48	211	2.749+02	1.081+06	1.225−05
46	225	2.485+02	1.540+06	1.426−05	48	212	2.738+02	7.871+06	1.327−04
46	237	2.391+02	4.549+06	5.199−05	48	214	2.667+02	9.763+06	1.041−04
46	238	2.379+02	7.836+06	6.649−05	48	215	2.657+02	1.966+07	3.121−04
46	243	2.348+02	1.269+07	1.399−04	48	224	2.614+02	1.234+07	1.264−04
46	247	2.256+02	3.958+07	2.014−04	48	235	2.526+02	3.842+07	3.676−04
46	249	2.235+02	1.878+07	9.373−05	48	238	2.491+02	3.265+06	4.555−05
46	250	2.235+02	2.359+07	1.767−04	48	239	2.475+02	3.663+06	3.364−05
46	252	2.224+02	2.767+06	2.736−05	48	241	2.461+02	3.197+07	1.451−04
46	254	2.202+02	3.281+08	1.591−03	48	242	2.462+02	3.155+07	1.434−04
46	255	2.201+02	2.013+08	1.461−03	48	244	2.449+02	9.068+05	1.223−05
46	257	2.186+02	3.695+06	3.530−05	48	245	2.446+02	5.264+06	4.720−05
46	259	2.180+02	1.669+07	1.189−04	48	246	2.361+02	4.924+06	6.172−05
46	261	2.176+02	4.501+07	4.262−04	48	247	2.357+02	3.106+06	2.586−05
46	263	2.172+02	4.827+06	2.277−05	48	249	2.333+02	2.204+07	1.798−04
46	265	2.158+02	9.762+07	6.819−04	48	250	2.333+02	1.760+08	2.154−03
46	267	2.150+02	6.476+08	5.981−03	48	254	2.298+02	7.780+08	6.158−03
46	269	2.137+02	5.031+08	4.591−03	48	255	2.296+02	2.101+09	2.490−02
46	274	2.111+02	1.169+08	5.210−04	48	258	2.276+02	5.560+08	2.159−03
46	275	2.111+02	1.395+08	1.243−03	48	259	2.273+02	4.583+07	5.326−04
46	276	2.105+02	2.049+07	1.361−04	48	260	2.271+02	4.696+06	5.444−05
46	278	2.095+02	1.189+08	1.043−03	48	263	2.265+02	1.013+07	7.794−05
46	281	2.069+02	2.595+06	1.110−05	48	265	2.250+02	6.421+08	7.310−03
46	282	2.054+02	5.857+07	2.469−04	48	266	2.241+02	9.082+08	3.419−03
46	283	2.049+02	4.436+06	2.792−05	48	274	2.199+02	6.104+07	4.425−04
46	285	2.027+02	6.102+07	5.013−04	48	276	2.192+02	3.144+08	3.398−03
47	196	2.998+02	2.825+09	7.612−02	48	280	2.159+02	6.874+07	2.403−04
47	210	2.686+02	3.726+06	4.029−05	48	281	2.153+02	1.035+09	7.192−03
47	211	2.677+02	4.405+06	9.469−05	48	282	2.137+02	1.223+09	8.369−03
47	214	2.600+02	4.340+07	8.795−04	48	283	2.131+02	3.274+06	3.344−05
47	224	2.549+02	1.068+06	2.080−05	48	284	2.109+02	1.540+08	5.136−04
47	235	2.466+02	4.992+06	9.100−05	49	181	3.548+02	9.975+08	1.883−02
47	239	2.417+02	2.855+07	5.001−04	49	182	3.545+02	2.538+08	9.563−03
47	241	2.403+02	2.801+07	2.425−04	49	189	3.356+02	9.352+08	1.579−02
47	242	2.405+02	5.199+07	4.509−04	49	191	3.354+02	7.424+08	2.504−02
47	245	2.389+02	1.133+06	1.939−05	49	207	2.972+02	4.118+09	1.091−01

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
49	214	2.751+02	2.550+07	5.788−04	51	191	3.360+02	1.427+09	1.610−02
49	224	2.695+02	7.194+05	1.566−05	51	192	3.359+02	3.681+08	6.227−03
49	229	2.668+02	1.715+08	3.659−03	51	193	3.360+02	8.825+08	1.991−02
49	230	2.656+02	1.524+09	1.612−02	51	205	2.995+02	4.119+09	7.389−02
49	232	2.641+02	6.654+07	6.959−04	51	206	2.984+02	2.524+09	3.370−02
49	234	2.627+02	5.304+07	1.097−03	51	207	2.977+02	3.293+08	2.917−03
49	239	2.547+02	2.774+06	5.395−05	51	212	2.831+02	2.381+06	2.861−05
49	242	2.534+02	7.169+06	6.902−05	51	215	2.745+02	1.762+07	1.990−04
49	245	2.516+02	6.626+05	1.258−05	51	218	2.737+02	8.714+06	1.305−04
49	249	2.397+02	8.265+05	1.424−05	51	222	2.711+02	8.827+06	1.296−04
49	251	2.394+02	3.414+06	2.934−05	51	223	2.708+02	1.775+07	2.602−04
49	254	2.360+02	3.566+06	5.954−05	51	224	2.699+02	4.746+06	3.454−05
49	258	2.337+02	1.391+07	1.139−04	51	226	2.688+02	5.735+08	6.211−03
49	263	2.326+02	1.699+06	2.755−05	51	229	2.671+02	1.263+09	9.010−03
49	266	2.300+02	9.086+06	7.206−05	51	231	2.656+02	6.065+07	8.552−04
49	274	2.256+02	5.251+07	8.012−04	51	233	2.638+02	4.129+08	4.309−03
50	181	3.550+02	4.604+08	4.350−03	51	234	2.631+02	3.359+08	2.324−03
50	182	3.547+02	7.828+08	1.477−02	51	237	2.582+02	1.837+06	2.447−05
50	183	3.542+02	2.809+08	7.925−03	51	239	2.551+02	1.222+07	7.945−05
50	189	3.358+02	1.612+09	1.363−02	51	243	2.531+02	9.630+05	1.233−05
50	191	3.356+02	3.551+08	5.997−03	51	245	2.519+02	8.727+06	5.537−05
50	192	3.355+02	8.591+08	2.175−02	51	249	2.400+02	1.568+07	9.030−05
50	206	2.981+02	3.912+09	7.818−02	51	250	2.400+02	1.215+06	1.049−05
50	207	2.974+02	2.370+09	3.143−02	51	257	2.344+02	5.894+06	6.475−05
50	211	2.840+02	1.582+06	1.912−05	51	259	2.337+02	6.429+06	5.263−05
50	214	2.752+02	1.854+07	2.105−04	51	260	2.334+02	3.407+06	2.782−05
50	215	2.742+02	1.428+07	2.415−04	51	261	2.333+02	1.097+07	1.193−04
50	224	2.696+02	3.362+06	3.663−05	51	263	2.328+02	9.385+06	5.085−05
50	225	2.689+02	2.963+06	4.818−05	51	267	2.302+02	3.461+06	3.667−05
50	226	2.685+02	8.902+07	1.443−03	51	269	2.287+02	1.402+06	1.466−05
50	229	2.669+02	9.099+08	9.717−03	51	275	2.258+02	4.553+06	4.640−05
50	230	2.657+02	1.269+09	6.715−03	51	278	2.239+02	4.208+07	4.218−04
50	232	2.642+02	5.595+07	2.928−04	52	178	3.652+02	9.357+05	1.404−05
50	233	2.636+02	7.314+07	1.143−03	52	183	3.554+02	3.784+08	5.373−03
50	234	2.628+02	2.676+08	2.772−03	52	184	3.545+02	6.472+08	1.220−02
50	238	2.565+02	2.068+06	3.060−05	52	185	3.533+02	1.424+08	3.333−03
50	239	2.548+02	1.223+06	1.191−05	52	190	3.371+02	8.475+08	1.805−02
50	242	2.535+02	1.794+07	8.644−05	52	192	3.366+02	1.260+09	1.605−02
50	251	2.395+02	1.626+07	6.993−05	52	193	3.366+02	5.504+08	9.352−03
50	255	2.359+02	2.098+06	2.626−05	52	204	3.017+02	4.534+09	7.737−02
50	258	2.338+02	7.331+06	3.003−05	52	205	3.001+02	2.324+09	3.137−02
50	259	2.335+02	1.337+07	1.639−04	52	206	2.990+02	3.215+08	3.231−03
50	260	2.332+02	1.378+06	1.686−05	52	215	2.749+02	1.511+06	1.284−05
50	263	2.326+02	1.337+07	1.085−04	52	218	2.741+02	1.221+07	1.376−04
50	266	2.301+02	5.560+06	2.207−05	52	219	2.741+02	9.950+06	1.401−04
50	276	2.250+02	5.711+07	6.500−04	52	220	2.731+02	1.894+06	2.647−05
51	178	3.645+02	1.002+06	1.996−05	52	222	2.715+02	5.636+06	6.228−05
51	182	3.552+02	3.952+08	4.984−03	52	223	2.713+02	2.471+08	2.726−03
51	183	3.546+02	7.225+08	1.362−02	52	225	2.696+02	9.292+06	7.592−05
51	184	3.538+02	2.418+08	6.049−03	52	226	2.692+02	1.246+09	1.015−02

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
52	227	2.689+02	2.256+07	3.056−04	54	227	2.703+02	3.219+09	2.937−02
52	231	2.660+02	4.884+08	5.182−03	54	240	2.565+02	6.770+07	5.566−04
52	233	2.642+02	7.678+08	6.028−03	54	248	2.419+02	6.607+06	6.761−05
52	238	2.571+02	1.171+07	8.706−05	54	273	2.286+02	5.013+06	4.580−05
52	240	2.553+02	3.812+06	4.655−05	55	196	3.319+02	4.551+09	5.010−02
52	243	2.535+02	6.048+06	5.827−05	55	197	3.282+02	2.029+08	3.276−03
52	244	2.527+02	2.006+07	1.440−04	55	205	3.094+02	6.734+05	1.288−05
52	250	2.404+02	9.701+06	6.302−05	55	211	2.931+02	3.782+06	3.246−05
52	252	2.391+02	2.077+06	1.781−05	55	212	2.919+02	1.612+06	2.059−05
52	257	2.348+02	2.319+06	1.916−05	55	214	2.838+02	1.985+07	1.598−04
52	260	2.337+02	4.633+06	2.846−05	55	215	2.827+02	3.070+06	3.679−05
52	261	2.336+02	3.364+06	2.753−05	55	222	2.791+02	5.538+06	8.623−05
52	262	2.336+02	1.237+07	1.266−04	55	238	2.639+02	2.036+06	2.126−05
52	270	2.290+02	4.094+06	4.022−05	55	239	2.621+02	6.404+06	4.399−05
52	278	2.242+02	7.318+06	5.516−05	55	244	2.592+02	1.661+06	1.674−05
52	279	2.226+02	2.100+07	1.951−04	55	247	2.489+02	5.654+06	3.501−05
52	286	2.164+02	1.357+06	1.191−05	55	249	2.463+02	2.565+06	1.555−05
53	184	3.556+02	4.151+08	6.296−03	55	250	2.463+02	6.556+06	5.962−05
53	185	3.544+02	4.751+08	8.946−03	55	254	2.424+02	2.132+08	1.252−03
53	188	3.390+02	6.829+08	1.412−02	55	255	2.421+02	1.518+08	1.335−03
53	190	3.381+02	9.741+08	1.669−02	55	257	2.404+02	1.897+07	2.192−04
53	193	3.376+02	1.014+09	1.387−02	55	259	2.396+02	8.635+06	7.433−05
53	202	3.049+02	5.159+09	8.627−02	55	260	2.393+02	2.031+06	1.744−05
53	204	3.025+02	1.893+09	2.598−02	55	261	2.392+02	1.240+08	1.418−03
53	205	3.009+02	2.161+08	2.346−03	55	265	2.371+02	4.994+08	4.207−03
53	217	2.753+02	9.465+06	1.291−04	55	267	2.360+02	6.389+08	7.112−03
53	218	2.748+02	6.270+06	5.678−05	55	269	2.344+02	1.983+08	2.178−03
53	219	2.747+02	7.836+06	8.866−05	55	274	2.314+02	1.905+07	1.019−04
53	220	2.737+02	2.998+06	3.368−05	55	275	2.313+02	6.407+08	6.854−03
53	222	2.721+02	1.063+08	9.441−04	55	278	2.294+02	2.056+08	2.162−03
53	223	2.719+02	8.848+08	7.845−03	55	281	2.263+02	2.358+07	1.207−04
53	227	2.695+02	3.911+08	4.258−03	55	282	2.245+02	7.167+07	3.610−04
53	231	2.666+02	1.583+09	1.349−02	56	197	3.334+02	4.075+09	5.092−02
53	237	2.591+02	9.058+06	7.295−05	56	204	3.158+02	8.180+05	1.529−05
53	240	2.558+02	1.430+07	1.404−04	56	212	2.960+02	2.174+07	2.142−04
53	243	2.541+02	4.150+07	3.212−04	56	213	2.890+02	1.725+06	1.620−05
53	262	2.341+02	2.904+06	2.386−05	56	215	2.865+02	1.126+07	1.040−04
53	264	2.337+02	5.140+06	5.051−05	56	218	2.857+02	6.088+06	7.450−05
53	271	2.283+02	1.429+06	1.340−05	56	219	2.856+02	2.612+06	3.994−05
53	279	2.231+02	9.892+06	7.379−05	56	220	2.846+02	4.388+06	6.660−05
53	285	2.169+02	3.612+06	2.038−05	56	223	2.826+02	1.160+06	1.388−05
54	185	3.558+02	5.427+08	8.581−03	56	237	2.688+02	2.346+06	2.541−05
54	188	3.402+02	1.913+09	3.320−02	56	238	2.673+02	4.032+06	3.238−05
54	190	3.393+02	6.274+08	9.025−03	56	240	2.653+02	2.023+06	2.668−05
54	199	3.094+02	6.158+09	1.031−01	56	243	2.634+02	9.486+06	9.864−05
54	202	3.059+02	1.184+09	1.661−02	56	246	2.524+02	1.165+07	8.341−05
54	204	3.035+02	9.147+07	1.052−03	56	250	2.492+02	1.091+07	7.618−05
54	217	2.761+02	1.369+07	1.565−04	56	255	2.450+02	3.016+08	2.035−03
54	219	2.755+02	1.117+06	1.060−05	56	256	2.441+02	5.783+06	6.455−05
54	220	2.745+02	1.163+07	1.095−04	56	260	2.421+02	6.162+06	4.060−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
56	262	2.420+02	1.335+08	1.465−03	58	193	3.685+02	7.654+07	2.078−03
56	265	2.398+02	8.715+07	5.632−04	58	197	3.460+02	7.084+05	1.271−05
56	267	2.387+02	1.596+08	1.363−03	58	211	3.072+02	7.787+06	7.345−05
56	269	2.371+02	1.981+08	1.669−03	58	212	3.059+02	8.338+06	1.170−04
56	270	2.370+02	1.010+09	1.062−02	58	213	2.984+02	1.463+06	1.953−05
56	272	2.353+02	6.138+08	6.371−03	58	215	2.958+02	4.333+06	5.684−05
56	275	2.339+02	1.100+08	9.027−04	58	218	2.949+02	3.258+06	5.665−05
56	276	2.332+02	2.240+07	1.369−04	58	222	2.919+02	3.971+08	6.761−03
56	278	2.319+02	1.720+07	1.387−04	58	223	2.916+02	4.408+09	7.491−02
56	279	2.302+02	1.394+08	1.384−03	58	225	2.896+02	4.345+06	5.464−05
56	286	2.236+02	1.556+08	1.457−03	58	226	2.892+02	9.109+08	1.142−02
57	178	4.023+02	2.937+08	1.069−02	58	229	2.873+02	9.206+06	7.596−05
57	181	3.914+02	3.123+08	3.586−03	58	231	2.855+02	2.264+08	3.689−03
57	182	3.910+02	2.403+08	5.509−03	58	233	2.835+02	2.366+09	2.850−02
57	183	3.904+02	1.116+08	3.826−03	58	234	2.826+02	6.263+09	5.000−02
57	189	3.681+02	7.533+06	7.652−05	58	237	2.769+02	3.872+07	5.936−04
57	191	3.679+02	2.271+07	4.610−04	58	238	2.753+02	2.675+07	3.040−04
57	192	3.678+02	2.423+07	7.372−04	58	239	2.734+02	1.835+07	1.371−04
57	210	3.079+02	4.118+06	2.926−05	58	243	2.712+02	4.523+06	6.647−05
57	211	3.068+02	1.640+07	2.314−04	58	244	2.702+02	4.215+06	4.615−05
57	212	3.055+02	8.244+06	1.730−04	58	245	2.698+02	2.204+06	1.603−05
57	213	2.980+02	3.634+06	7.256−05	58	260	2.486+02	9.592+06	8.891−05
57	214	2.966+02	8.874+05	1.171−05	58	263	2.480+02	3.195+06	1.964−05
57	224	2.901+02	2.212+07	2.791−04	58	276	2.393+02	1.539+06	1.321−05
57	225	2.892+02	1.804+07	3.393−04	58	285	2.293+02	2.457+06	2.582−05
57	226	2.888+02	3.880+09	7.278−02	59	178	4.036+02	3.586+08	6.569−03
57	229	2.869+02	5.131+09	6.333−02	59	183	3.916+02	1.148+07	1.979−04
57	230	2.856+02	4.845+09	2.962−02	59	184	3.906+02	1.095+08	2.505−03
57	232	2.839+02	2.031+08	1.227−03	59	185	3.891+02	4.571+08	1.297−02
57	233	2.831+02	2.890+08	5.208−03	59	190	3.696+02	1.092+08	2.795−03
57	234	2.822+02	1.303+08	1.557−03	59	192	3.689+02	2.151+06	3.291−05
57	235	2.793+02	1.520+06	1.778−05	59	193	3.690+02	2.527+07	5.157−04
57	238	2.750+02	3.446+07	5.859−04	59	212	3.062+02	6.622+07	6.982−04
57	239	2.730+02	2.130+06	2.380−05	59	213	2.987+02	3.409+06	3.420−05
57	244	2.699+02	6.210+06	1.017−04	59	215	2.961+02	3.648+06	3.596−05
57	249	2.559+02	1.260+06	1.236−05	59	218	2.952+02	2.526+07	3.300−04
57	250	2.559+02	4.375+06	6.441−05	59	219	2.951+02	1.354+07	2.210−04
57	255	2.514+02	1.307+06	1.857−05	59	222	2.921+02	4.149+07	5.309−04
57	258	2.490+02	5.424+06	2.521−05	59	223	2.919+02	6.365+08	8.128−03
57	260	2.484+02	6.712+06	9.312−05	59	225	2.899+02	1.812+06	1.713−05
57	263	2.477+02	4.284+06	3.941−05	59	226	2.895+02	4.042+08	3.808−03
57	266	2.449+02	1.122+07	5.043−05	59	227	2.891+02	4.385+09	6.867−02
57	281	2.343+02	1.489+06	1.225−05	59	231	2.858+02	5.072+09	6.211−02
57	283	2.318+02	2.051+06	2.479−05	59	233	2.838+02	3.321+09	3.006−02
58	178	4.031+02	3.174+08	7.730−03	59	237	2.772+02	2.009+08	2.314−03
58	182	3.918+02	8.189+07	1.256−03	59	238	2.756+02	5.214+07	4.453−04
58	183	3.911+02	2.220+08	5.090−03	59	240	2.734+02	7.082+06	9.923−05
58	184	3.901+02	2.747+08	8.355−03	59	243	2.714+02	3.777+07	4.172−04
58	191	3.686+02	6.922+06	9.398−05	59	244	2.705+02	7.477+06	6.150−05
58	192	3.684+02	3.781+07	7.694−04	59	278	2.381+02	8.266+06	7.027−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
59	279	2.363+02	7.629+06	7.985−05	61	269	2.545+02	7.553+06	9.780−05
59	285	2.295+02	1.439+06	1.136−05	61	274	2.509+02	2.282+06	1.436−05
60	196	3.708+02	1.826+09	3.763−02	61	275	2.509+02	3.596+06	4.525−05
60	197	3.661+02	2.456+08	7.403−03	61	276	2.501+02	4.351+06	4.079−05
60	214	3.117+02	8.081+05	1.177−05	61	278	2.486+02	2.490+06	3.076−05
60	215	3.104+02	2.182+06	4.729−05	61	281	2.449+02	2.189+08	1.312−03
60	225	3.036+02	2.818+06	5.840−05	61	282	2.429+02	3.378+07	1.991−04
60	238	2.879+02	1.151+06	2.145−05	61	283	2.422+02	6.202+06	5.452−05
60	239	2.858+02	5.457+06	6.682−05	62	181	4.314+02	7.296+05	2.036−05
60	241	2.839+02	2.322+07	1.403−04	62	182	4.310+02	1.194+06	6.654−05
60	242	2.842+02	3.306+07	2.001−04	62	210	3.321+02	1.095+08	1.810−03
60	245	2.819+02	1.380+07	1.644−04	62	211	3.308+02	3.901+07	1.280−03
60	249	2.670+02	2.478+07	2.649−04	62	214	3.190+02	6.955+06	2.123−04
60	250	2.671+02	6.602+06	1.059−04	62	224	3.115+02	5.952+05	1.731−05
60	251	2.667+02	7.559+07	4.030−04	62	229	3.079+02	4.020+05	1.142−05
60	254	2.624+02	1.082+09	1.117−02	62	234	3.025+02	1.050+06	2.880−05
60	255	2.622+02	1.651+08	2.552−03	62	239	2.919+02	7.184+07	1.836−03
60	258	2.596+02	2.563+07	1.295−04	62	241	2.899+02	1.642+06	2.070−05
60	259	2.592+02	1.548+08	2.339−03	62	242	2.902+02	3.073+07	3.880−04
60	260	2.589+02	2.703+06	4.074−05	62	245	2.879+02	7.945+06	1.974−04
60	265	2.562+02	2.543+07	3.755−04	62	247	2.756+02	1.557+06	3.546−05
60	266	2.551+02	4.296+07	2.095−04	62	249	2.724+02	3.032+09	6.745−02
60	274	2.496+02	2.938+06	2.744−05	62	251	2.720+02	4.614+09	5.118−02
60	276	2.488+02	7.028+06	9.780−05	62	254	2.676+02	1.563+08	3.355−03
60	280	2.446+02	1.814+08	8.135−04	62	258	2.646+02	2.341+08	2.457−03
60	282	2.416+02	8.702+06	7.617−05	62	263	2.632+02	2.166+09	4.498−02
60	283	2.409+02	1.647+06	2.150−05	62	266	2.600+02	3.908+08	3.959−03
60	284	2.381+02	1.210+07	5.142−05	62	274	2.543+02	1.461+07	2.834−04
60	287	2.362+02	5.075+06	2.122−05	62	280	2.490+02	3.345+06	3.110−05
61	196	3.736+02	1.746+08	2.436−03	62	282	2.460+02	2.845+07	5.163−04
61	197	3.689+02	2.156+09	4.400−02	62	284	2.424+02	9.592+07	8.449−04
61	212	3.237+02	2.501+06	3.929−05	63	178	4.479+02	2.777+06	6.264−05
61	215	3.124+02	3.002+06	4.392−05	63	184	4.319+02	6.700+05	1.874−05
61	218	3.114+02	1.812+06	3.514−05	63	185	4.301+02	1.549+07	5.371−04
61	222	3.080+02	1.485+06	2.816−05	63	192	4.055+02	6.496+05	1.201−05
61	223	3.077+02	8.576+05	1.623−05	63	193	4.056+02	1.471+06	3.629−05
61	224	3.065+02	1.225+06	1.150−05	63	197	3.785+02	5.223+06	8.412−05
61	234	2.978+02	2.036+06	1.804−05	63	204	3.560+02	5.316+05	1.262−05
61	235	2.945+02	5.448+06	4.722−05	63	205	3.537+02	9.562+05	1.793−05
61	239	2.875+02	3.400+06	2.809−05	63	212	3.310+02	1.457+09	1.796−02
61	243	2.851+02	3.801+06	6.174−05	63	213	3.223+02	3.453+07	4.032−04
61	245	2.836+02	4.294+06	3.451−05	63	215	3.193+02	2.066+07	2.368−04
61	249	2.685+02	2.682+07	1.933−04	63	218	3.182+02	4.242+06	6.440−05
61	250	2.686+02	7.171+07	7.753−04	63	219	3.181+02	6.063+08	1.150−02
61	252	2.670+02	5.112+06	7.288−05	63	220	3.168+02	1.484+08	2.792−03
61	254	2.639+02	2.036+07	1.417−04	63	223	3.143+02	4.698+06	6.960−05
61	255	2.636+02	8.670+08	9.033−03	63	226	3.116+02	1.910+07	2.084−04
61	257	2.616+02	1.056+07	1.444−04	63	227	3.111+02	1.698+06	3.081−05
61	261	2.602+02	2.061+07	2.789−04	63	233	3.050+02	1.890+07	1.977−04
61	265	2.576+02	8.978+07	8.932−04	63	237	2.974+02	4.905+08	6.504−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
63	238	2.955+02	2.975+08	2.921−03	64	245	2.899+02	1.432+09	1.805−02
63	240	2.931+02	2.441+09	3.928−02	64	249	2.742+02	1.700+08	1.916−03
63	243	2.907+02	1.700+09	2.155−02	64	250	2.742+02	1.083+08	1.832−03
63	244	2.897+02	3.237+08	3.054−03	64	251	2.738+02	1.156+09	6.495−03
63	250	2.736+02	6.073+08	5.111−03	64	254	2.694+02	2.848+07	3.098−04
63	252	2.720+02	8.083+08	8.966−03	64	255	2.691+02	8.036+07	1.308−03
63	255	2.685+02	3.904+06	3.164−05	64	258	2.663+02	1.682+08	8.943−04
63	256	2.674+02	2.870+06	3.846−05	64	259	2.660+02	7.016+08	1.116−02
63	257	2.664+02	5.876+06	6.250−05	64	260	2.656+02	2.158+08	3.425−03
63	259	2.654+02	4.376+06	3.465−05	64	263	2.649+02	4.562+08	4.799−03
63	260	2.650+02	1.486+08	1.174−03	64	265	2.628+02	9.110+07	1.415−03
63	261	2.649+02	7.352+06	7.734−05	64	266	2.616+02	1.097+08	5.628−04
63	262	2.649+02	5.575+07	7.331−04	64	274	2.559+02	7.443+08	7.306−03
63	265	2.622+02	2.492+06	1.927−05	64	276	2.550+02	3.746+07	5.477−04
63	267	2.609+02	1.214+06	1.239−05	64	280	2.506+02	5.154+07	2.425−04
63	269	2.590+02	3.000+06	3.017−05	64	281	2.496+02	3.173+08	2.964−03
63	270	2.589+02	7.636+06	9.592−05	64	282	2.475+02	1.870+07	1.717−04
63	275	2.553+02	2.922+07	2.855−04	64	284	2.438+02	1.002+07	4.464−05
63	276	2.544+02	2.128+07	1.549−04	64	287	2.418+02	2.389+06	1.047−05
63	278	2.529+02	2.175+08	2.085−03	65	184	4.333+02	5.179+06	1.943−04
63	279	2.509+02	8.135+06	9.594−05	65	191	4.069+02	1.494+06	2.472−05
63	283	2.462+02	5.111+06	3.485−05	65	192	4.067+02	1.537+06	3.813−05
63	285	2.431+02	2.784+08	2.467−03	65	193	4.068+02	2.261+06	7.481−05
64	178	4.496+02	3.174+05	1.443−05	65	197	3.795+02	2.658+06	5.740−05
64	183	4.348+02	1.501+06	6.380−05	65	205	3.546+02	1.264+06	3.177−05
64	189	4.073+02	3.062+06	3.808−05	65	206	3.530+02	2.317+06	4.329−05
64	191	4.071+02	8.460+05	2.102−05	65	211	3.334+02	1.078+09	1.198−02
64	192	4.069+02	3.153+06	1.174−04	65	212	3.318+02	4.227+08	6.978−03
64	196	3.847+02	2.408+07	5.344−04	65	213	3.230+02	1.230+07	1.923−04
64	197	3.797+02	1.685+06	5.462−05	65	214	3.214+02	9.576+07	9.887−04
64	206	3.532+02	1.410+06	3.955−05	65	215	3.200+02	1.536+07	2.358−04
64	207	3.522+02	2.883+06	5.361−05	65	218	3.190+02	5.068+08	1.031−02
64	210	3.348+02	8.620+08	7.244−03	65	222	3.154+02	9.762+06	1.941−04
64	211	3.335+02	5.682+08	9.474−03	65	224	3.137+02	3.119+06	3.068−05
64	212	3.320+02	4.002+07	9.919−04	65	225	3.128+02	9.449+06	1.386−04
64	213	3.232+02	2.582+06	6.064−05	65	226	3.123+02	1.994+07	2.915−04
64	214	3.215+02	1.408+08	2.183−03	65	229	3.101+02	3.363+06	3.231−05
64	215	3.201+02	2.826+08	6.512−03	65	233	3.056+02	5.179+06	7.252−05
64	224	3.139+02	1.038+06	1.532−05	65	234	3.046+02	6.307+06	5.849−05
64	225	3.129+02	1.218+07	2.682−04	65	237	2.980+02	1.163+09	2.066−02
64	226	3.124+02	7.943+06	1.743−04	65	238	2.962+02	5.301+07	6.971−04
64	229	3.102+02	5.606+06	8.088−05	65	239	2.939+02	4.401+08	3.799−03
64	232	3.066+02	2.438+06	1.719−05	65	243	2.914+02	9.191+08	1.560−02
64	233	3.057+02	3.152+06	6.625−05	65	244	2.903+02	1.659+09	2.096−02
64	234	3.047+02	3.131+06	4.359−05	65	245	2.898+02	7.413+08	6.222−03
64	238	2.963+02	1.145+09	2.261−02	65	249	2.741+02	7.436+08	5.584−03
64	239	2.940+02	5.950+06	7.711−05	65	250	2.741+02	1.752+08	1.974−03
64	241	2.920+02	4.564+07	2.917−04	65	252	2.725+02	9.875+06	1.466−04
64	242	2.923+02	1.164+09	7.455−03	65	254	2.692+02	5.342+06	3.871−05
64	244	2.904+02	4.828+08	9.155−03	65	255	2.690+02	1.780+07	1.931−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
65	257	2.669+02	3.016+08	4.294−03	66	276	2.562+02	1.887+08	2.785−03
65	259	2.659+02	2.097+08	2.222−03	66	280	2.518+02	4.157+07	1.975−04
65	260	2.655+02	1.766+08	1.866−03	66	281	2.508+02	7.416+07	6.994−04
65	261	2.654+02	8.476+07	1.193−03	66	282	2.486+02	3.138+08	2.909−03
65	263	2.648+02	1.825+07	1.279−04	66	284	2.450+02	4.312+07	1.940−04
65	265	2.627+02	3.275+07	3.389−04	67	181	4.411+02	1.020+06	2.976−05
65	267	2.614+02	1.314+08	1.795−03	67	189	4.117+02	3.870+06	9.836−05
65	274	2.558+02	4.742+07	3.101−04	67	191	4.115+02	3.883+06	1.972−04
65	275	2.557+02	1.619+07	2.117−04	67	196	3.886+02	4.571+05	2.070−05
65	276	2.549+02	6.209+08	6.048−03	67	207	3.555+02	1.047+06	3.966−05
65	278	2.533+02	9.795+06	1.257−04	67	210	3.378+02	1.128+09	1.930−02
65	281	2.495+02	5.634+06	3.507−05	67	211	3.365+02	2.039+08	6.921−03
65	282	2.474+02	4.161+06	2.545−05	67	214	3.243+02	4.240+07	1.337−03
65	283	2.467+02	2.708+08	2.471−03	67	224	3.165+02	5.811+05	1.745−05
65	285	2.436+02	1.771+07	2.099−04	67	229	3.128+02	3.150+06	9.238−05
66	178	4.535+02	5.855+06	2.707−04	67	230	3.112+02	1.360+06	1.974−05
66	181	4.397+02	4.093+06	5.930−05	67	232	3.091+02	3.470+06	4.971−05
66	196	3.875+02	2.844+06	6.404−05	67	234	3.072+02	4.088+06	1.157−04
66	197	3.825+02	1.017+06	3.346−05	67	235	3.037+02	6.401+05	1.770−05
66	210	3.370+02	3.777+07	3.214−04	67	239	2.963+02	1.532+09	4.033−02
66	211	3.356+02	3.040+07	5.135−04	67	241	2.943+02	3.610+07	4.686−04
66	212	3.341+02	8.334+07	2.092−03	67	242	2.945+02	8.319+08	1.082−02
66	213	3.252+02	3.367+06	8.006−05	67	245	2.921+02	9.993+08	2.557−02
66	214	3.235+02	2.048+08	3.213−03	67	249	2.762+02	3.466+08	7.927−03
66	215	3.221+02	1.848+07	4.311−04	67	251	2.758+02	5.519+06	6.294−05
66	225	3.148+02	3.976+06	8.858−05	67	254	2.713+02	3.334+06	7.356−05
66	226	3.142+02	3.796+06	8.431−05	67	258	2.682+02	1.288+08	1.390−03
66	229	3.120+02	1.133+07	1.654−04	67	263	2.667+02	3.240+06	6.911−05
66	230	3.104+02	2.066+06	1.492−05	67	266	2.634+02	1.657+08	1.724−03
66	232	3.084+02	1.946+06	1.388−05	67	274	2.576+02	2.031+06	4.041−05
66	238	2.980+02	1.531+06	3.056−05	67	280	2.522+02	1.303+08	1.243−03
66	239	2.957+02	3.847+07	5.042−04	67	281	2.513+02	5.581+06	1.057−04
66	241	2.936+02	1.962+06	1.268−05	67	284	2.454+02	2.686+07	2.425−04
66	242	2.939+02	3.497+07	2.264−04	67	287	2.433+02	1.480+06	1.313−05
66	244	2.920+02	2.251+07	4.316−04	68	178	4.584+02	1.745+06	5.497−05
66	245	2.915+02	6.673+07	8.501−04	68	182	4.438+02	2.692+06	5.301−05
66	246	2.795+02	2.001+06	3.516−05	68	183	4.430+02	1.550+06	4.558−05
66	247	2.790+02	9.860+05	1.150−05	68	196	3.911+02	2.656+06	4.062−05
66	249	2.756+02	1.516+09	1.727−02	68	197	3.860+02	2.358+06	5.267−05
66	250	2.757+02	3.540+09	6.049−02	68	207	3.576+02	3.361+06	4.295−05
66	251	2.752+02	3.953+06	2.245−05	68	211	3.383+02	1.470+08	1.681−03
66	254	2.707+02	1.016+08	1.116−03	68	214	3.260+02	9.679+08	1.028−02
66	255	2.705+02	2.079+08	3.419−03	68	215	3.246+02	7.709+07	1.217−03
66	258	2.677+02	2.845+09	1.529−02	68	218	3.235+02	2.801+06	5.859−05
66	259	2.673+02	8.444+08	1.357−02	68	222	3.198+02	1.058+08	2.164−03
66	260	2.670+02	3.083+08	4.941−03	68	223	3.195+02	2.208+07	4.505−04
66	263	2.662+02	2.091+09	2.222−02	68	225	3.171+02	4.060+08	6.122−03
66	265	2.641+02	7.976+07	1.251−03	68	226	3.166+02	2.961+06	4.450−05
66	266	2.629+02	2.728+09	1.414−02	68	233	3.098+02	7.291+06	1.049−04
66	274	2.571+02	1.646+08	1.631−03	68	237	3.020+02	1.498+08	2.730−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
68	238	3.001+02	5.241+07	7.076−04	69	245	2.945+02	1.098+08	1.429−03
68	239	2.978+02	2.486+08	2.203−03	69	249	2.784+02	7.189+07	8.351−04
68	243	2.951+02	8.320+07	1.449−03	69	250	2.784+02	7.270+08	1.267−02
68	244	2.940+02	8.299+07	1.076−03	69	251	2.780+02	5.675+08	3.287−03
68	245	2.935+02	6.651+08	5.727−03	69	254	2.733+02	1.100+08	1.232−03
68	249	2.775+02	1.129+08	8.688−04	69	255	2.731+02	7.097+07	1.190−03
68	250	2.775+02	2.854+08	3.294−03	69	258	2.702+02	4.740+08	2.595−03
68	252	2.759+02	6.451+08	9.813−03	69	259	2.699+02	2.679+09	4.389−02
68	254	2.725+02	1.214+08	9.011−04	69	260	2.695+02	1.409+08	2.301−03
68	255	2.722+02	7.375+07	8.193−04	69	263	2.688+02	9.581+06	1.037−04
68	257	2.700+02	3.878+09	5.653−02	69	265	2.666+02	1.200+08	1.919−03
68	259	2.690+02	1.408+09	1.527−02	69	266	2.654+02	5.450+08	2.877−03
68	260	2.687+02	2.177+09	2.355−02	69	274	2.595+02	1.514+09	1.528−02
68	261	2.685+02	1.724+07	2.485−04	69	276	2.586+02	9.496+07	1.428−03
68	263	2.679+02	2.393+08	1.716−03	69	280	2.540+02	1.392+09	6.731−03
68	265	2.658+02	1.970+08	2.087−03	69	281	2.531+02	1.366+07	1.311−04
68	267	2.645+02	3.131+06	4.378−05	69	282	2.509+02	1.019+07	9.615−05
68	269	2.625+02	5.109+07	7.038−04	69	283	2.501+02	3.124+06	4.394−05
68	274	2.587+02	1.521+08	1.017−03	69	284	2.471+02	1.505+07	6.887−05
68	275	2.586+02	2.410+08	3.223−03	69	287	2.450+02	6.346+06	2.855−05
68	276	2.578+02	9.444+08	9.409−03	70	183	4.467+02	1.716+06	3.849−05
68	278	2.562+02	1.293+08	1.697−03	70	184	4.454+02	3.548+06	1.055−04
68	281	2.523+02	2.836+08	1.805−03	70	185	4.435+02	6.520+05	2.403−05
68	282	2.501+02	2.755+08	1.723−03	70	190	4.182+02	7.759+05	2.543−05
68	283	2.494+02	6.055+07	5.646−04	70	192	4.174+02	1.013+06	1.984−05
69	178	4.609+02	5.502+05	2.628−05	70	193	4.175+02	2.270+06	5.933−05
69	181	4.466+02	9.414+05	1.407−05	70	197	3.888+02	1.500+06	2.549−05
69	182	4.461+02	3.526+06	1.052−04	70	206	3.610+02	2.739+06	4.015−05
69	183	4.453+02	3.044+05	1.357−05	70	212	3.389+02	1.161+07	1.500−04
69	191	4.163+02	1.256+06	3.264−05	70	213	3.297+02	2.304+06	2.816−05
69	192	4.161+02	1.125+06	4.379−05	70	215	3.266+02	8.585+08	1.029−02
69	196	3.929+02	7.758+06	1.796−04	70	218	3.255+02	2.980+07	4.733−04
69	197	3.877+02	1.448+06	4.894−05	70	219	3.254+02	7.772+07	1.542−03
69	210	3.410+02	1.771+08	1.544−03	70	220	3.240+02	1.377+08	2.709−03
69	211	3.396+02	2.283+08	3.949−03	70	222	3.217+02	4.919+08	7.635−03
69	212	3.381+02	5.266+07	1.353−03	70	223	3.214+02	5.204+07	8.059−04
69	213	3.289+02	1.197+06	2.914−05	70	225	3.190+02	3.976+07	4.550−04
69	214	3.272+02	8.489+08	1.363−02	70	227	3.180+02	9.933+05	1.883−05
69	215	3.258+02	5.354+07	1.278−03	70	231	3.141+02	1.537+06	2.273−05
69	224	3.193+02	1.270+06	1.941−05	70	237	3.037+02	8.689+06	1.202−04
69	225	3.183+02	1.049+07	2.389−04	70	238	3.018+02	3.620+08	3.706−03
69	226	3.178+02	1.153+06	2.619−05	70	240	2.992+02	4.603+07	7.721−04
69	229	3.155+02	3.638+06	5.429−05	70	243	2.968+02	1.121+07	1.481−04
69	233	3.109+02	6.526+06	1.419−04	70	244	2.956+02	1.114+09	1.095−02
69	234	3.099+02	5.574+06	8.024−05	70	250	2.789+02	1.261+08	1.103−03
69	238	3.011+02	6.232+08	1.271−02	70	252	2.773+02	8.584+07	9.896−04
69	239	2.988+02	1.997+08	2.673−03	70	255	2.736+02	1.353+08	1.139−03
69	241	2.967+02	1.985+06	1.310−05	70	256	2.725+02	4.607+09	6.411−02
69	242	2.970+02	3.462+07	2.289−04	70	257	2.714+02	2.175+09	2.402−02
69	244	2.950+02	4.628+08	9.058−03	70	259	2.704+02	3.847+08	3.163−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
70	260	2.700+02	3.830+06	3.140−05	71	275	2.598+02	1.386+07	1.870−04
70	261	2.699+02	9.989+08	1.091−02	71	276	2.590+02	2.461+08	2.475−03
70	262	2.699+02	2.543+08	3.471−03	71	278	2.574+02	2.984+07	3.950−04
70	267	2.658+02	1.469+08	1.556−03	71	281	2.534+02	2.269+08	1.457−03
70	269	2.638+02	1.165+06	1.215−05	71	282	2.512+02	7.936+07	5.007−04
70	270	2.637+02	1.465+08	1.909−03	71	283	2.505+02	6.789+07	6.387−04
70	272	2.617+02	5.817+08	7.463−03	71	285	2.473+02	3.036+06	3.711−05
70	275	2.599+02	1.528+08	1.548−03	72	184	4.509+02	9.225+05	2.249−05
70	276	2.590+02	4.120+08	3.108−03	72	185	4.489+02	2.824+06	8.531−05
70	278	2.574+02	1.410+09	1.400−02	72	188	4.244+02	1.125+06	3.645−05
70	279	2.553+02	5.840+07	7.135−04	72	190	4.231+02	5.124+06	1.375−04
70	283	2.506+02	5.233+08	3.694−03	72	193	4.223+02	1.662+06	3.556−05
70	285	2.473+02	1.855+07	1.702−04	72	202	3.723+02	6.571+05	1.639−05
70	286	2.472+02	1.493+07	1.710−04	72	205	3.663+02	1.165+06	1.875−05
71	178	4.622+02	6.893+06	2.208−04	72	217	3.292+02	1.669+08	3.254−03
71	183	4.465+02	1.565+06	4.677−05	72	218	3.284+02	4.604+08	5.956−03
71	191	4.174+02	8.424+05	1.467−05	72	219	3.283+02	1.998+08	3.229−03
71	196	3.939+02	8.288+05	1.285−05	72	220	3.269+02	4.516+08	7.235−03
71	197	3.886+02	1.286+06	2.913−05	72	222	3.246+02	9.266+06	1.171−04
71	207	3.599+02	9.079+05	1.175−05	72	223	3.243+02	1.152+07	1.453−04
71	211	3.404+02	5.258+06	6.088−05	72	237	3.063+02	4.358+08	4.903−03
71	212	3.388+02	1.663+08	2.861−03	72	243	2.992+02	1.193+09	1.281−02
71	213	3.296+02	6.878+06	1.120−04	72	252	2.794+02	1.141+08	1.069−03
71	214	3.279+02	2.393+08	2.572−03	72	253	2.772+02	4.263+09	5.893−02
71	215	3.265+02	8.354+06	1.335−04	72	256	2.746+02	1.004+09	1.135−02
71	222	3.216+02	3.134+07	6.481−04	72	257	2.735+02	1.725+08	1.547−03
71	223	3.213+02	8.050+05	1.661−05	72	261	2.719+02	2.156+08	1.912−03
71	225	3.189+02	1.749+08	2.667−03	72	262	2.719+02	2.437+09	2.702−02
71	226	3.184+02	5.080+06	7.721−05	72	264	2.714+02	3.365+08	4.459−03
71	231	3.140+02	1.709+06	3.368−05	72	267	2.677+02	4.759+07	4.092−04
71	233	3.115+02	8.288+05	1.206−05	72	269	2.657+02	7.778+07	6.587−04
71	234	3.105+02	4.607+06	4.438−05	72	270	2.656+02	4.740+07	5.013−04
71	237	3.036+02	2.091+07	3.853−04	72	271	2.641+02	1.314+09	1.650−02
71	238	3.017+02	1.017+07	1.387−04	72	272	2.636+02	2.798+07	2.914−04
71	239	2.994+02	9.024+07	8.082−04	72	275	2.618+02	1.450+08	1.192−03
71	243	2.967+02	8.812+07	1.551−03	72	278	2.593+02	9.555+08	7.703−03
71	244	2.956+02	8.145+07	1.067−03	72	279	2.571+02	1.037+09	1.028−02
71	245	2.951+02	1.867+08	1.625−03	72	285	2.490+02	3.727+08	2.772−03
71	250	2.789+02	3.246+07	3.785−04	72	286	2.489+02	1.352+06	1.255−05
71	252	2.772+02	3.552+09	5.456−02	73	182	4.565+02	1.181+06	2.460−05
71	254	2.738+02	8.029+06	6.016−05	73	183	4.556+02	2.828+06	8.800−05
71	257	2.713+02	1.012+09	1.489−02	73	184	4.542+02	3.650+05	1.506−05
71	259	2.703+02	9.730+08	1.066−02	73	191	4.253+02	1.441+06	2.605−05
71	260	2.700+02	3.576+09	3.907−02	73	192	4.251+02	2.664+06	7.219−05
71	261	2.698+02	2.507+08	3.648−03	73	193	4.253+02	5.568+05	2.013−05
71	263	2.692+02	2.086+09	1.511−02	73	197	3.955+02	2.976+06	6.980−05
71	265	2.671+02	1.103+08	1.179−03	73	205	3.685+02	8.464+05	2.298−05
71	267	2.657+02	7.078+07	9.990−04	73	206	3.668+02	1.756+06	3.543−05
71	269	2.637+02	7.873+07	1.095−03	73	211	3.456+02	3.017+07	3.602−04
71	274	2.599+02	1.233+08	8.325−04	73	212	3.440+02	3.201+07	5.680−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
73	214	3.328+02	3.030+07	3.355−04	74	279	2.589+02	2.205+09	1.847−02
73	215	3.313+02	9.057+08	1.490−02	75	183	4.633+02	1.776+06	4.286−05
73	218	3.302+02	7.176+07	1.564−03	75	184	4.619+02	3.633+06	1.162−04
73	222	3.263+02	1.395+07	2.970−04	75	185	4.598+02	6.128+05	2.428−05
73	225	3.235+02	2.698+08	4.234−03	75	192	4.318+02	2.119+06	4.444−05
73	231	3.185+02	2.715+06	5.504−05	75	193	4.320+02	3.165+06	8.853−05
73	233	3.159+02	8.284+06	1.239−04	75	197	4.013+02	6.968+05	1.262−05
73	234	3.148+02	1.343+06	1.331−05	75	204	3.761+02	1.947+06	5.161−05
73	237	3.078+02	1.869+08	3.540−03	75	205	3.735+02	1.480+06	3.097−05
73	238	3.058+02	2.556+08	3.584−03	75	212	3.484+02	2.067+07	2.821−04
73	239	3.034+02	8.180+07	7.526−04	75	218	3.342+02	7.430+08	1.244−02
73	243	3.007+02	2.297+08	4.152−03	75	219	3.341+02	2.270+07	4.748−04
73	244	2.995+02	3.641+07	4.897−04	75	220	3.326+02	1.749+07	3.626−04
73	245	2.990+02	1.566+08	1.399−03	75	222	3.303+02	2.513+08	4.109−03
73	249	2.824+02	3.715+08	2.960−03	75	223	3.299+02	2.589+06	4.225−05
73	250	2.824+02	1.701+08	2.034−03	75	225	3.274+02	1.160+07	1.398−04
73	252	2.807+02	2.550+08	4.016−03	75	226	3.269+02	1.913+06	2.298−05
73	254	2.772+02	2.870+07	2.204−04	75	227	3.264+02	1.658+06	3.309−05
73	255	2.769+02	6.688+07	7.690−04	75	231	3.222+02	1.546+07	2.405−04
73	257	2.747+02	1.145+08	1.727−03	75	233	3.196+02	1.529+06	1.755−05
73	259	2.736+02	3.220+07	3.614−04	75	237	3.113+02	3.821+08	5.552−03
73	260	2.732+02	6.290+07	7.041−04	75	238	3.092+02	8.561+07	9.207−04
73	261	2.731+02	4.055+09	6.046−02	75	240	3.065+02	2.574+08	4.532−03
73	263	2.725+02	1.992+08	1.478−03	75	243	3.040+02	2.009+08	2.783−03
73	267	2.689+02	7.284+08	1.053−02	75	244	3.028+02	2.634+07	2.716−04
73	269	2.669+02	3.769+08	5.366−03	75	250	2.853+02	4.691+08	4.294−03
73	274	2.630+02	1.453+09	1.005−02	75	252	2.836+02	2.038+08	2.458−03
73	275	2.629+02	6.141+06	8.485−05	75	256	2.786+02	6.518+08	9.480−03
73	276	2.620+02	8.498+08	8.746−03	75	257	2.774+02	7.539+07	8.701−04
73	278	2.604+02	6.792+07	9.204−04	75	259	2.764+02	2.844+07	2.443−04
73	281	2.564+02	5.659+08	3.717−03	75	260	2.760+02	4.568+07	3.913−04
73	282	2.541+02	5.274+07	3.403−04	75	261	2.759+02	2.037+07	2.324−04
73	283	2.533+02	3.597+06	3.461−05	75	262	2.759+02	3.024+09	4.313−02
74	188	4.293+02	7.643+06	2.111−04	75	265	2.730+02	1.011+07	8.470−05
74	190	4.279+02	2.071+06	4.737−05	75	269	2.695+02	2.734+07	2.976−04
74	199	3.814+02	5.468+06	1.391−04	75	270	2.694+02	1.146+09	1.559−02
74	217	3.321+02	7.871+08	1.301−02	75	272	2.673+02	7.355+07	9.847−04
74	219	3.312+02	1.579+08	2.163−03	75	275	2.654+02	1.259+08	1.329−03
74	220	3.298+02	9.128+06	1.240−04	75	276	2.645+02	1.242+09	9.776−03
74	227	3.236+02	1.824+07	2.386−04	75	278	2.629+02	1.147+09	1.188−02
74	240	3.041+02	1.595+09	1.843−02	75	279	2.607+02	7.392+07	9.414−04
74	248	2.838+02	4.456+09	6.276−02	75	283	2.557+02	6.275+08	4.613−03
74	253	2.792+02	3.739+08	4.371−03	75	285	2.523+02	6.084+06	5.807−05
74	256	2.766+02	3.057+07	2.921−04	75	286	2.522+02	7.493+07	8.931−04
74	262	2.739+02	2.318+08	2.173−03	76	184	4.695+02	1.643+06	4.345−05
74	264	2.734+02	3.100+09	3.473−02	76	185	4.674+02	6.070+06	1.988−04
74	270	2.675+02	2.713+08	2.425−03	76	190	4.395+02	2.145+06	6.212−05
74	271	2.660+02	7.665+07	8.132−04	76	193	4.387+02	1.392+06	3.212−05
74	272	2.654+02	4.054+07	3.568−04	76	202	3.850+02	2.196+06	5.857−05
74	273	2.656+02	1.803+09	2.225−02	76	204	3.812+02	6.110+05	1.331−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
76	217	3.390+02	5.140+06	1.063−04	77	262	2.889+02	4.996+06	7.815−05
76	218	3.382+02	9.664+06	1.326−04	77	265	2.857+02	1.091+08	1.001−03
76	219	3.381+02	2.869+08	4.916−03	77	269	2.819+02	3.295+09	3.927−02
76	220	3.366+02	4.573+08	7.768−03	77	270	2.818+02	1.979+08	2.944−03
76	222	3.342+02	4.657+06	6.237−05	77	272	2.795+02	6.176+07	9.040−04
76	223	3.338+02	4.240+06	5.667−05	77	275	2.775+02	3.990+08	4.605−03
76	227	3.302+02	4.876+06	7.971−05	77	276	2.765+02	1.609+07	1.383−04
76	231	3.259+02	1.651+06	2.103−05	77	278	2.747+02	8.291+07	9.376−04
76	237	3.148+02	7.240+07	8.603−04	77	279	2.723+02	1.137+07	1.580−04
76	240	3.099+02	9.124+08	1.314−02	77	283	2.669+02	1.836+07	1.470−04
76	252	2.865+02	6.347+08	6.248−03	77	286	2.630+02	4.629+06	6.002−05
76	253	2.841+02	5.027+08	7.302−03	78	190	4.705+02	6.717+05	2.230−05
76	256	2.814+02	2.792+07	3.314−04	78	202	4.086+02	2.660+06	7.989−05
76	257	2.802+02	3.918+06	3.689−05	78	204	4.043+02	3.827+06	9.381−05
76	261	2.786+02	5.503+06	5.122−05	78	205	4.014+02	1.660+06	3.206−05
76	262	2.786+02	1.990+07	2.315−04	78	217	3.572+02	2.830+06	6.497−05
76	264	2.780+02	3.070+09	4.270−02	78	218	3.563+02	7.658+05	1.166−05
76	267	2.742+02	7.673+06	6.920−05	78	219	3.562+02	2.247+07	4.273−04
76	269	2.721+02	2.781+07	2.469−04	78	220	3.545+02	3.036+07	5.721−04
76	270	2.720+02	5.103+07	5.659−04	78	222	3.518+02	4.757+07	7.062−04
76	271	2.705+02	4.508+08	5.931−03	78	223	3.514+02	3.189+06	4.724−05
76	272	2.698+02	7.498+06	8.184−05	78	240	3.250+02	4.895+06	7.754−05
76	275	2.680+02	8.839+07	7.612−04	78	252	2.994+02	9.245+06	9.937−05
76	278	2.653+02	6.522+08	5.507−03	78	253	2.968+02	2.121+08	3.361−03
76	279	2.631+02	2.196+09	2.279−02	78	256	2.938+02	1.488+09	1.925−02
76	285	2.546+02	8.068+08	6.273−03	78	257	2.925+02	2.544+06	2.610−05
76	286	2.545+02	2.247+07	2.182−04	78	261	2.908+02	4.388+08	4.449−03
77	197	4.295+02	1.269+07	2.631−04	78	262	2.908+02	3.652+08	4.629−03
77	204	4.008+02	5.434+05	1.635−05	78	264	2.902+02	1.318+07	1.997−04
77	205	3.978+02	9.434+05	2.239−05	78	267	2.860+02	2.662+08	2.611−03
77	206	3.959+02	5.883+05	1.037−05	78	269	2.837+02	3.892+08	3.757−03
77	212	3.694+02	1.883+06	2.889−05	78	270	2.836+02	1.787+09	2.154−02
77	218	3.535+02	1.553+06	2.910−05	78	271	2.819+02	2.281+06	3.261−05
77	219	3.534+02	5.754+06	1.347−04	78	272	2.812+02	3.096+09	3.671−02
77	220	3.518+02	1.321+06	3.063−05	78	275	2.792+02	3.926+06	3.671−05
77	222	3.491+02	1.798+07	3.285−04	78	278	2.763+02	2.373+08	2.173−03
77	223	3.487+02	2.344+06	4.274−05	78	279	2.739+02	7.098+07	7.985−04
77	225	3.459+02	2.782+07	3.742−04	78	285	2.647+02	1.675+07	1.408−04
77	237	3.280+02	5.752+06	9.276−05	78	286	2.646+02	8.281+07	8.690−04
77	238	3.257+02	6.989+06	8.338−05	79	197	4.368+02	2.083+07	4.467−04
77	240	3.227+02	7.520+06	1.468−04	79	205	4.041+02	6.884+05	1.685−05
77	243	3.199+02	7.317+06	1.123−04	79	206	4.021+02	6.126+05	1.114−05
77	246	3.038+02	1.204+06	1.250−05	79	212	3.748+02	2.178+06	3.441−05
77	250	2.993+02	1.994+07	2.008−04	79	215	3.598+02	1.294+06	1.882−05
77	255	2.931+02	8.008+08	7.738−03	79	218	3.584+02	6.157+05	1.186−05
77	256	2.919+02	1.151+08	1.838−03	79	219	3.583+02	1.422+06	3.422−05
77	257	2.906+02	1.880+09	2.380−02	79	220	3.566+02	1.854+07	4.419−04
77	259	2.895+02	7.326+08	6.903−03	79	222	3.539+02	2.150+07	4.037−04
77	260	2.890+02	8.001+06	7.516−05	79	223	3.535+02	1.472+06	2.758−05
77	261	2.889+02	7.274+07	9.100−04	79	225	3.506+02	1.563+07	2.161−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
79	237	3.322+02	6.893+06	1.141−04	81	215	3.654+02	1.193+07	3.580−04
79	238	3.299+02	1.984+07	2.427−04	81	225	3.560+02	2.984+06	8.501−05
79	240	3.268+02	1.887+07	3.777−04	81	238	3.346+02	2.149+06	5.410−05
79	243	3.240+02	3.392+06	5.337−05	81	242	3.295+02	2.437+06	1.984−05
79	244	3.226+02	1.734+06	2.029−05	81	244	3.271+02	7.265+05	1.748−05
79	246	3.075+02	2.682+06	2.851−05	81	245	3.265+02	1.674+07	2.676−04
79	250	3.028+02	8.356+07	8.615−04	81	249	3.067+02	1.273+07	1.796−04
79	255	2.965+02	1.224+09	1.210−02	81	250	3.068+02	2.482+06	5.251−05
79	256	2.952+02	1.053+08	1.720−03	81	251	3.062+02	6.313+06	4.438−05
79	257	2.940+02	9.512+08	1.232−02	81	254	3.007+02	3.350+07	4.539−04
79	259	2.928+02	1.793+08	1.728−03	81	255	3.003+02	6.880+07	1.396−03
79	260	2.923+02	2.922+06	2.808−05	81	258	2.969+02	1.189+08	7.858−04
79	261	2.922+02	3.398+06	4.349−05	81	259	2.965+02	2.469+06	4.880−05
79	262	2.922+02	3.437+07	5.500−04	81	265	2.925+02	4.362+08	8.394−03
79	265	2.890+02	4.221+08	3.962−03	81	266	2.910+02	2.400+08	1.524−03
79	267	2.874+02	1.168+09	1.446−02	81	274	2.840+02	5.022+07	6.072−04
79	269	2.850+02	4.007+07	4.881−04	81	276	2.829+02	6.726+07	1.210−03
79	270	2.849+02	5.354+08	8.145−03	81	280	2.774+02	6.267+06	3.616−05
79	272	2.826+02	9.181+07	1.374−03	81	281	2.763+02	3.336+07	3.817−04
79	275	2.805+02	1.379+09	1.627−02	81	282	2.737+02	7.122+07	7.996−04
79	276	2.795+02	3.052+08	2.681−03	81	284	2.692+02	8.064+06	4.381−05
79	278	2.776+02	1.056+08	1.220−03	81	287	2.667+02	2.708+06	1.444−05
79	279	2.752+02	5.218+07	7.406−04	82	196	4.518+02	3.322+07	6.776−04
79	283	2.697+02	1.256+06	1.027−05	82	197	4.449+02	2.933+06	8.704−05
79	285	2.659+02	9.746+06	1.033−04	82	211	3.828+02	1.514+06	2.216−05
80	188	4.768+02	1.391+06	4.739−05	82	212	3.808+02	5.840+06	1.270−04
80	199	4.184+02	4.524+06	1.385−04	82	214	3.671+02	1.086+06	1.462−05
80	202	4.120+02	6.834+06	1.739−04	82	215	3.653+02	5.747+06	1.150−04
80	204	4.077+02	1.894+06	3.932−05	82	218	3.639+02	5.052+05	1.337−05
80	217	3.598+02	3.361+07	6.524−04	82	222	3.592+02	2.671+06	6.890−05
80	219	3.588+02	5.390+06	8.667−05	82	225	3.559+02	5.307+06	1.008−04
80	220	3.571+02	4.049+07	6.450−04	82	238	3.345+02	1.281+07	2.149−04
80	240	3.272+02	4.632+06	6.196−05	82	239	3.316+02	2.098+07	2.306−04
80	248	3.038+02	1.358+08	2.191−03	82	245	3.264+02	2.403+07	2.559−04
80	253	2.986+02	7.235+08	9.671−03	82	247	3.108+02	6.012+06	5.803−05
80	256	2.955+02	2.145+07	2.341−04	82	249	3.066+02	7.354+07	6.911−04
80	262	2.925+02	1.877+08	2.006−03	82	250	3.067+02	1.685+07	2.376−04
80	264	2.919+02	4.136+08	5.283−03	82	252	3.047+02	3.631+06	6.739−05
80	270	2.852+02	5.918+08	6.014−03	82	254	3.006+02	2.234+09	2.017−02
80	271	2.835+02	5.574+09	6.717−02	82	255	3.003+02	4.284+08	5.791−03
80	272	2.828+02	4.137+07	4.135−04	82	257	2.976+02	1.167+07	2.066−04
80	273	2.830+02	1.912+07	2.680−04	82	259	2.964+02	1.299+08	1.711−03
80	279	2.755+02	2.365+08	2.242−03	82	260	2.960+02	8.003+05	1.051−05
80	286	2.660+02	3.715+07	3.284−04	82	261	2.958+02	4.543+07	7.945−04
81	196	4.519+02	9.348+07	2.863−03	82	263	2.950+02	1.616+07	1.406−04
81	197	4.451+02	3.740+06	1.666−04	82	265	2.925+02	1.145+09	1.469−02
81	210	3.846+02	5.674+06	6.292−05	82	267	2.909+02	1.311+08	2.217−03
81	211	3.829+02	1.536+07	3.375−04	82	269	2.885+02	3.240+08	5.390−03
81	212	3.809+02	4.580+06	1.494−04	82	274	2.839+02	1.753+07	1.412−04
81	214	3.672+02	2.601+07	5.257−04	82	275	2.838+02	4.222+07	6.799−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
82	276	2.828+02	1.736+07	2.082−04	85	284	2.714+02	1.276+08	7.050−04
82	278	2.809+02	4.615+07	7.279−04	85	287	2.689+02	1.337+07	7.248−05
82	281	2.762+02	2.176+07	1.659−04	86	204	4.197+02	6.552+05	1.730−05
82	282	2.736+02	7.432+06	5.561−05	86	205	4.165+02	5.345+05	1.112−05
82	283	2.727+02	1.059+06	1.181−05	86	218	3.682+02	6.652+05	1.081−05
83	199	4.251+02	1.422+07	3.852−04	86	219	3.681+02	5.658+05	1.149−05
83	202	4.185+02	1.715+06	3.860−05	86	222	3.634+02	1.311+07	2.077−04
83	217	3.648+02	3.300+07	5.641−04	86	237	3.406+02	2.308+06	3.211−05
83	248	3.073+02	4.856+08	6.873−03	86	240	3.349+02	1.646+06	2.768−05
83	253	3.020+02	1.395+07	1.634−04	86	243	3.319+02	4.999+06	6.604−05
83	264	2.951+02	1.283+08	1.436−03	86	252	3.077+02	6.614+06	7.511−05
83	271	2.866+02	2.314+08	2.442−03	86	253	3.050+02	2.338+07	3.913−04
83	273	2.861+02	6.500+09	7.976−02	86	256	3.018+02	7.873+07	1.075−03
84	196	4.558+02	4.256+07	2.651−03	86	257	3.005+02	1.532+07	1.659−04
84	211	3.856+02	5.871+05	2.618−05	86	261	2.986+02	1.528+08	1.634−03
84	214	3.697+02	5.376+06	2.203−04	86	262	2.986+02	4.992+07	6.675−04
84	239	3.338+02	2.670+06	8.921−05	86	264	2.980+02	1.924+07	3.075−04
84	242	3.316+02	2.944+06	4.851−05	86	267	2.936+02	4.209+08	4.351−03
84	249	3.085+02	1.191+07	3.399−04	86	269	2.912+02	1.260+08	1.281−03
84	251	3.080+02	8.916+05	1.268−05	86	270	2.910+02	1.636+08	2.078−03
84	254	3.024+02	4.770+08	1.307−02	86	271	2.893+02	5.228+08	7.872−03
84	258	2.986+02	1.309+08	1.749−03	86	272	2.886+02	6.530+06	8.153−05
84	266	2.926+02	1.349+08	1.732−03	86	275	2.865+02	1.140+09	1.122−02
84	274	2.855+02	1.109+07	2.710−04	86	278	2.834+02	2.428+07	2.339−04
84	280	2.789+02	1.556+07	1.814−04	86	279	2.809+02	8.873+05	1.050−05
84	281	2.777+02	2.546+06	5.887−05	86	285	2.712+02	1.825+07	1.610−04
84	282	2.751+02	2.559+06	5.805−05	86	286	2.711+02	1.796+09	1.978−02
84	284	2.706+02	2.329+08	2.557−03	87	188	5.007+02	9.760+05	3.669−05
84	287	2.680+02	1.393+06	1.501−05	87	199	4.368+02	6.089+05	2.031−05
85	196	4.583+02	2.285+06	7.193−05	87	202	4.298+02	1.703+06	4.717−05
85	197	4.512+02	2.960+07	1.355−03	87	204	4.251+02	6.416+05	1.448−05
85	210	3.892+02	9.433+05	1.071−05	87	217	3.733+02	1.731+06	3.616−05
85	212	3.854+02	4.986+05	1.665−05	87	220	3.704+02	8.077+06	1.384−04
85	214	3.714+02	8.684+06	1.795−04	87	240	3.383+02	1.628+07	2.327−04
85	225	3.599+02	4.794+05	1.396−05	87	248	3.133+02	9.317+07	1.600−03
85	235	3.446+02	1.445+06	2.574−05	87	253	3.078+02	8.901+07	1.264−03
85	238	3.381+02	1.119+06	2.877−05	87	256	3.046+02	2.028+06	2.350−05
85	242	3.329+02	1.804+06	1.499−05	87	262	3.013+02	6.860+07	7.782−04
85	249	3.096+02	6.443+06	9.260−05	87	264	3.007+02	6.409+07	8.688−04
85	250	3.097+02	1.410+07	3.040−04	87	270	2.936+02	2.973+08	3.202−03
85	254	3.035+02	1.222+08	1.687−03	87	271	2.918+02	1.072+08	1.369−03
85	255	3.031+02	3.622+08	7.484−03	87	272	2.911+02	4.210+08	4.458−03
85	258	2.996+02	1.075+08	7.237−04	87	273	2.913+02	1.146+09	1.701−02
85	265	2.952+02	2.858+06	5.599−05	87	279	2.833+02	6.660+07	6.678−04
85	266	2.937+02	9.670+07	6.251−04	87	286	2.733+02	5.189+08	4.843−03
85	274	2.865+02	7.014+06	8.629−05	88	196	4.726+02	1.079+06	2.409−05
85	280	2.798+02	6.087+06	3.572−05	88	197	4.651+02	7.794+07	2.528−03
85	281	2.786+02	1.300+08	1.513−03	88	211	3.976+02	2.649+06	4.186−05
85	282	2.760+02	2.320+08	2.649−03	88	212	3.955+02	1.319+07	3.092−04
85	283	2.751+02	6.854+05	1.166−05	88	213	3.830+02	5.355+05	1.178−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
88	214	3.807+02	2.145+06	3.108−05	89	274	2.960+02	2.359+09	2.067−02
88	215	3.788+02	4.767+06	1.025−04	89	275	2.960+02	9.268+08	1.623−02
88	218	3.773+02	3.046+06	8.669−05	89	276	2.948+02	2.528+08	3.295−03
88	222	3.723+02	1.527+06	4.230−05	89	278	2.928+02	7.753+07	1.328−03
88	223	3.719+02	5.635+05	1.558−05	89	281	2.877+02	1.091+07	9.027−05
88	225	3.687+02	6.851+06	1.396−04	89	282	2.849+02	8.586+07	6.963−04
88	237	3.484+02	1.407+06	3.413−05	89	283	2.839+02	2.989+07	3.612−04
88	238	3.458+02	2.970+06	5.325−05	89	285	2.798+02	1.657+06	2.592−05
88	239	3.428+02	2.574+06	3.023−05	90	190	5.234+02	4.276+05	2.195−05
88	243	3.393+02	3.299+06	7.591−05	90	193	5.222+02	3.166+05	1.294−05
88	244	3.378+02	1.119+07	1.914−04	90	205	4.392+02	1.134+06	3.281−05
88	245	3.372+02	9.454+05	1.074−05	90	206	4.368+02	2.891+06	6.201−05
88	249	3.161+02	2.269+06	2.266−05	90	215	3.873+02	9.988+06	1.685−04
88	250	3.161+02	9.056+06	1.357−04	90	220	3.837+02	2.237+06	6.174−05
88	254	3.097+02	3.002+08	2.877−03	90	222	3.806+02	2.314+08	5.024−03
88	255	3.093+02	1.252+07	1.796−04	90	223	3.801+02	2.283+07	4.944−04
88	257	3.065+02	2.056+06	3.862−05	90	225	3.768+02	6.972+06	1.113−04
88	259	3.052+02	1.874+07	2.618−04	90	238	3.529+02	1.334+06	1.868−05
88	260	3.048+02	5.059+06	7.044−05	90	243	3.461+02	3.281+06	5.893−05
88	261	3.046+02	4.691+07	8.699−04	90	244	3.446+02	1.621+07	2.164−04
88	263	3.038+02	2.676+06	2.468−05	90	250	3.221+02	3.576+07	4.171−04
88	265	3.011+02	1.516+08	2.060−03	90	252	3.199+02	1.023+07	1.570−04
88	267	2.994+02	4.356+08	7.804−03	90	255	3.150+02	4.279+07	4.775−04
88	274	2.920+02	1.792+07	1.527−04	90	256	3.136+02	7.649+07	1.409−03
88	275	2.919+02	1.054+08	1.795−03	90	257	3.121+02	1.685+08	2.461−03
88	276	2.908+02	5.846+07	7.414−04	90	259	3.108+02	5.997+06	6.512−05
88	278	2.888+02	5.326+07	8.879−04	90	260	3.103+02	3.000+07	3.247−04
88	281	2.839+02	9.908+07	7.981−04	90	261	3.101+02	6.467+06	9.323−05
88	282	2.811+02	1.482+08	1.171−03	90	262	3.101+02	2.745+08	4.947−03
89	197	4.754+02	1.605+06	5.438−05	90	265	3.065+02	2.280+07	2.407−04
89	206	4.346+02	5.326+05	1.508−05	90	267	3.047+02	7.842+06	1.092−04
89	207	4.330+02	3.463+06	6.490−05	90	270	3.019+02	8.572+08	1.464−02
89	214	3.876+02	1.523+07	2.287−04	90	272	2.993+02	1.787+09	3.000−02
89	222	3.789+02	1.034+07	2.968−04	90	275	2.970+02	9.515+07	1.258−03
89	223	3.784+02	8.306+05	2.378−05	90	276	2.959+02	1.598+09	1.572−02
89	225	3.751+02	3.622+08	7.640−03	90	278	2.938+02	1.890+08	2.445−03
89	226	3.744+02	1.976+06	4.152−05	90	279	2.910+02	9.312+06	1.478−04
89	243	3.447+02	8.574+05	2.037−05	90	283	2.849+02	1.607+08	1.466−03
89	244	3.432+02	1.608+06	2.839−05	90	285	2.807+02	4.784+07	5.650−04
89	245	3.425+02	4.997+06	5.860−05	90	286	2.805+02	4.442+06	6.549−05
89	249	3.208+02	4.311+07	4.435−04	91	188	5.375+02	8.212+05	4.268−05
89	250	3.209+02	4.807+06	7.420−05	91	190	5.354+02	6.785+05	2.916−05
89	257	3.110+02	4.420+06	8.543−05	91	202	4.566+02	5.986+05	2.245−05
89	259	3.096+02	7.125+05	1.024−05	91	204	4.513+02	1.244+06	3.799−05
89	260	3.091+02	5.507+06	7.891−05	91	205	4.476+02	1.532+06	3.680−05
89	261	3.090+02	1.937+08	3.697−03	91	218	3.923+02	5.576+06	1.029−04
89	263	3.082+02	2.066+07	1.961−04	91	219	3.921+02	1.846+07	4.256−04
89	265	3.054+02	1.410+08	1.972−03	91	220	3.901+02	1.567+08	3.575−03
89	267	3.036+02	3.138+07	5.783−04	91	227	3.815+02	7.362+05	1.607−05
89	269	3.010+02	1.589+09	2.879−02	91	237	3.611+02	4.705+06	7.358−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
91	240	3.547+02	6.616+05	1.248−05	93	237	3.685+02	3.871+06	6.306−05
91	243	3.513+02	2.185+07	3.235−04	93	240	3.619+02	5.594+06	1.098−04
91	252	3.244+02	4.737+07	5.978−04	93	253	3.272+02	5.261+06	1.014−04
91	253	3.214+02	1.273+08	2.365−03	93	256	3.236+02	3.689+07	5.790−04
91	256	3.178+02	1.438+08	2.177−03	93	257	3.220+02	4.934+06	6.137−05
91	257	3.163+02	4.203+06	5.044−05	93	261	3.199+02	1.644+07	2.018−04
91	261	3.143+02	3.552+06	4.207−05	93	264	3.192+02	1.326+07	2.431−04
91	262	3.143+02	4.772+06	7.066−05	93	267	3.141+02	4.326+08	5.120−03
91	264	3.136+02	1.448+08	2.561−03	93	269	3.114+02	1.974+08	2.295−03
91	267	3.087+02	2.145+06	2.452−05	93	270	3.112+02	1.568+07	2.277−04
91	269	3.060+02	4.411+07	4.955−04	93	271	3.092+02	2.454+08	4.221−03
91	270	3.059+02	7.327+06	1.028−04	93	272	3.084+02	7.278+07	1.038−03
91	271	3.040+02	2.258+09	3.753−02	93	275	3.060+02	1.447+08	1.625−03
91	272	3.032+02	3.594+06	4.953−05	93	278	3.025+02	9.083+06	9.971−05
91	278	2.975+02	1.325+09	1.407−02	93	279	2.997+02	2.137+07	2.877−04
91	279	2.947+02	1.154+08	1.503−03	93	285	2.887+02	4.774+07	4.772−04
91	285	2.841+02	1.578+08	1.527−03	94	188	5.593+02	1.789+06	8.392−05
91	286	2.839+02	1.102+08	1.332−03	94	199	4.807+02	1.530+06	6.185−05
92	197	4.983+02	7.684+05	2.145−05	94	202	4.723+02	9.759+05	3.263−05
92	212	4.192+02	6.833+05	1.350−05	94	204	4.666+02	5.548+05	1.509−05
92	215	4.005+02	6.508+06	1.173−04	94	217	4.049+02	1.275+08	3.135−03
92	218	3.988+02	3.758+06	8.962−05	94	219	4.036+02	3.864+06	7.864−05
92	222	3.932+02	7.546+06	1.749−04	94	227	3.924+02	8.792+05	1.692−05
92	237	3.666+02	5.945+06	1.198−04	94	240	3.641+02	2.386+07	3.952−04
92	238	3.638+02	7.158+06	1.065−04	94	248	3.353+02	1.251+08	2.461−03
92	243	3.566+02	7.420+05	1.415−05	94	253	3.290+02	6.476+07	1.051−03
92	250	3.311+02	3.345+06	4.123−05	94	256	3.253+02	3.637+06	4.809−05
92	252	3.288+02	1.038+06	1.683−05	94	264	3.209+02	3.733+06	5.763−05
92	255	3.236+02	4.724+07	5.564−04	94	270	3.128+02	2.326+07	2.844−04
92	257	3.206+02	3.374+07	5.199−04	94	271	3.108+02	1.112+07	1.611−04
92	259	3.192+02	5.133+07	5.879−04	94	272	3.100+02	4.917+06	5.904−05
92	260	3.186+02	3.358+06	3.833−05	94	273	3.102+02	2.343+09	3.944−02
92	261	3.185+02	4.216+07	6.409−04	94	279	3.011+02	9.985+08	1.131−02
92	262	3.185+02	1.046+07	1.988−04	94	286	2.899+02	4.207+07	4.416−04
92	265	3.146+02	7.294+08	8.118−03	95	183	6.270+02	2.069+05	1.219−05
92	267	3.128+02	1.737+08	2.547−03	95	191	5.711+02	8.601+05	2.803−05
92	269	3.100+02	7.040+07	1.014−03	95	192	5.707+02	7.026+05	3.431−05
92	270	3.099+02	3.401+07	6.120−04	95	196	5.280+02	1.067+06	2.973−05
92	272	3.071+02	1.059+08	1.871−03	95	197	5.186+02	3.749+05	1.512−05
92	275	3.046+02	1.450+07	2.017−04	95	211	4.361+02	1.540+06	2.927−05
92	276	3.035+02	1.956+07	2.025−04	95	214	4.158+02	9.820+06	1.697−04
92	278	3.012+02	1.277+07	1.738−04	95	215	4.135+02	7.408+07	1.899−03
92	279	2.984+02	8.777+05	1.465−05	95	218	4.118+02	7.658+06	2.595−04
92	283	2.919+02	7.350+06	7.041−05	95	222	4.058+02	1.975+08	6.501−03
92	285	2.875+02	1.522+06	1.886−05	95	223	4.053+02	1.841+07	6.045−04
92	286	2.873+02	2.368+08	3.664−03	95	225	4.015+02	8.110+06	1.960−04
93	217	4.022+02	1.721+06	5.009−05	95	233	3.898+02	7.187+05	1.637−05
93	218	4.011+02	9.005+06	1.737−04	95	237	3.775+02	2.230+06	6.354−05
93	219	4.009+02	1.430+07	3.446−04	95	238	3.745+02	1.461+07	3.072−04
93	220	3.988+02	3.659+06	8.727−05	95	239	3.709+02	1.774+07	2.439−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
95	243	3.669+02	1.139+06	3.065−05	96	276	3.115+02	7.793+07	8.499−04
95	245	3.644+02	1.664+06	2.209−05	96	279	3.061+02	5.598+06	9.831−05
95	249	3.399+02	2.719+08	3.141−03	96	283	2.993+02	1.218+09	1.227−02
95	250	3.400+02	4.453+07	7.717−04	96	285	2.947+02	2.424+08	3.155−03
95	252	3.376+02	1.120+06	2.551−05	97	189	5.749+02	1.622+06	4.018−05
95	254	3.325+02	1.562+06	1.726−05	97	191	5.745+02	6.265+05	3.100−05
95	255	3.321+02	1.447+06	2.393−05	97	210	4.404+02	1.025+06	1.490−05
95	257	3.289+02	8.080+05	1.747−05	97	214	4.177+02	7.693+07	2.012−03
95	260	3.268+02	2.640+07	4.227−04	97	215	4.153+02	3.575+06	1.387−04
95	263	3.257+02	8.987+07	9.530−04	97	225	4.032+02	2.051+08	7.499−03
95	265	3.226+02	2.187+07	3.412−04	97	226	4.024+02	8.492+05	3.092−05
95	269	3.178+02	5.714+07	1.153−03	97	238	3.760+02	2.318+06	7.371−05
95	274	3.122+02	5.290+07	5.154−04	97	239	3.724+02	1.281+07	2.663−04
95	275	3.121+02	4.812+06	9.372−05	97	241	3.691+02	1.018+06	1.039−05
95	276	3.109+02	1.451+06	2.102−05	97	242	3.696+02	3.119+07	3.194−04
95	278	3.086+02	4.611+06	8.775−05	97	245	3.658+02	5.888+05	1.181−05
95	281	3.030+02	7.014+08	6.434−03	97	249	3.412+02	7.455+07	1.301−03
95	282	2.998+02	5.808+08	5.217−03	97	250	3.412+02	1.629+06	4.265−05
95	283	2.988+02	3.342+08	4.473−03	97	251	3.406+02	5.427+08	4.718−03
95	285	2.942+02	1.130+07	1.954−04	97	258	3.291+02	2.952+07	2.397−04
96	184	6.267+02	2.514+05	1.480−05	97	259	3.285+02	2.560+06	6.212−05
96	190	5.743+02	2.433+05	1.504−05	97	260	3.280+02	2.027+06	4.904−05
96	192	5.726+02	4.969+05	1.832−05	97	263	3.269+02	3.203+07	5.130−04
96	193	5.729+02	7.082+05	3.484−05	97	265	3.237+02	1.401+06	3.303−05
96	197	5.202+02	1.051+06	3.198−05	97	266	3.219+02	2.471+07	1.919−04
96	212	4.346+02	9.576+05	2.034−05	97	274	3.133+02	1.820+07	2.677−04
96	215	4.145+02	9.926+06	1.918−04	97	276	3.119+02	1.072+06	2.345−05
96	218	4.128+02	7.013+07	1.791−03	97	280	3.053+02	1.507+09	1.053−02
96	219	4.126+02	7.739+07	2.469−03	97	281	3.039+02	1.975+08	2.735−03
96	220	4.104+02	1.663+08	5.247−03	97	282	3.008+02	1.493+08	2.024−03
96	222	4.068+02	4.480+06	1.111−04	97	283	2.997+02	1.487+07	3.004−04
96	231	3.946+02	1.298+06	3.030−05	97	284	2.954+02	3.564+08	2.331−03
96	237	3.784+02	1.911+07	4.102−04	98	185	6.327+02	1.752+05	1.051−05
96	238	3.754+02	1.096+07	1.737−04	98	188	5.851+02	1.437+06	8.847−05
96	240	3.714+02	3.099+06	8.009−05	98	190	5.826+02	5.880+05	2.992−05
96	243	3.677+02	8.746+06	1.773−04	98	202	4.905+02	4.308+05	1.865−05
96	244	3.659+02	3.439+06	5.178−05	98	217	4.183+02	2.480+08	7.805−03
96	250	3.407+02	1.620+08	2.113−03	98	218	4.170+02	6.303+06	1.315−04
96	252	3.382+02	2.976+07	5.104−04	98	219	4.168+02	4.868+07	1.268−03
96	255	3.328+02	6.016+06	7.490−05	98	220	4.146+02	1.734+07	4.467−04
96	257	3.295+02	7.964+05	1.296−05	98	237	3.820+02	6.238+06	1.092−04
96	259	3.280+02	2.567+06	3.106−05	98	240	3.748+02	6.082+07	1.281−03
96	260	3.275+02	8.779+07	1.059−03	98	243	3.710+02	4.614+06	7.619−05
96	261	3.273+02	1.408+06	2.261−05	98	252	3.411+02	1.814+08	2.531−03
96	262	3.273+02	9.586+06	1.924−04	98	253	3.378+02	3.828+06	7.858−05
96	267	3.213+02	1.589+07	2.459−04	98	256	3.339+02	3.862+06	6.454−05
96	269	3.184+02	1.499+06	2.278−05	98	264	3.292+02	7.369+06	1.437−04
96	270	3.182+02	6.187+07	1.174−03	98	269	3.209+02	1.439+06	1.777−05
96	272	3.153+02	6.393+07	1.191−03	98	271	3.186+02	1.555+08	2.840−03
96	275	3.127+02	1.076+07	1.577−04	98	272	3.178+02	9.079+05	1.374−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
98	275	3.151+02	7.271+06	8.661−05	101	248	3.598+02	7.173+05	1.624−05
98	278	3.115+02	4.173+07	4.857−04	101	253	3.526+02	2.994+07	5.580−04
98	279	3.085+02	8.441+06	1.204−04	101	256	3.483+02	6.061+06	9.187−05
98	285	2.969+02	1.397+09	1.476−02	101	262	3.441+02	3.590+06	5.310−05
99	196	5.538+02	1.622+07	7.459−04	101	264	3.432+02	2.485+06	4.389−05
99	197	5.435+02	1.772+07	1.177−03	101	270	3.340+02	1.048+07	1.462−04
99	210	4.560+02	1.345+06	2.095−05	101	271	3.317+02	1.162+07	1.917−04
99	211	4.535+02	1.678+06	5.175−05	101	272	3.308+02	8.911+05	1.218−05
99	212	4.507+02	6.524+05	2.980−05	101	279	3.208+02	8.762+05	1.126−05
99	233	4.037+02	6.407+05	2.348−05	101	286	3.080+02	9.432+07	1.118−03
99	238	3.874+02	4.278+06	1.444−04	102	182	6.990+02	2.079+05	1.523−05
99	242	3.805+02	9.599+05	1.042−05	102	196	5.766+02	1.052+07	5.244−04
99	244	3.773+02	8.412+05	2.693−05	102	197	5.655+02	8.398+05	6.039−05
99	249	3.505+02	2.317+06	4.266−05	102	210	4.713+02	6.418+06	1.069−04
99	250	3.505+02	9.253+06	2.556−04	102	212	4.658+02	1.402+06	6.837−05
99	251	3.498+02	4.245+06	3.894−05	102	214	4.455+02	3.846+06	1.144−04
99	255	3.421+02	2.478+06	6.524−05	102	215	4.428+02	2.245+07	9.898−04
99	258	3.377+02	4.759+08	4.069−03	102	226	4.281+02	3.979+05	1.640−05
99	259	3.371+02	8.158+06	2.085−04	102	229	4.240+02	4.366+05	1.177−05
99	260	3.365+02	7.926+06	2.019−04	102	238	3.984+02	2.880+06	1.028−04
99	263	3.354+02	7.866+06	1.326−04	102	244	3.878+02	4.462+06	1.509−04
99	265	3.321+02	4.040+06	1.002−04	102	247	3.651+02	7.257+05	1.451−05
99	266	3.301+02	3.155+08	2.577−03	102	249	3.595+02	8.818+07	1.708−03
99	276	3.197+02	3.142+06	7.219−05	102	250	3.595+02	1.997+07	5.804−04
99	280	3.127+02	1.838+07	1.347−04	102	251	3.588+02	3.406+06	3.287−05
99	281	3.113+02	3.528+08	5.125−03	102	254	3.512+02	1.361+07	2.517−04
99	282	3.080+02	5.299+08	7.534−03	102	255	3.507+02	3.410+06	9.434−05
99	283	3.069+02	9.405+06	1.991−04	102	258	3.461+02	9.650+06	8.664−05
99	284	3.023+02	3.771+08	2.583−03	102	259	3.455+02	5.674+07	1.523−03
99	287	2.992+02	5.208+06	3.494−05	102	260	3.449+02	9.288+06	2.484−04
100	196	5.595+02	3.389+06	3.181−04	102	263	3.436+02	1.687+07	2.987−04
100	211	4.574+02	2.933+05	1.839−05	102	265	3.402+02	1.006+08	2.617−03
100	214	4.351+02	3.598+05	2.043−05	102	266	3.381+02	1.285+07	1.101−04
100	235	3.989+02	2.706+05	1.291−05	102	274	3.286+02	6.347+05	1.028−05
100	239	3.862+02	1.044+06	4.670−05	102	276	3.271+02	3.328+07	8.011−04
100	241	3.827+02	4.883+05	1.072−05	102	280	3.199+02	3.735+07	2.865−04
100	242	3.832+02	7.647+05	1.684−05	102	281	3.184+02	2.296+07	3.489−04
100	245	3.791+02	4.982+05	2.147−05	102	282	3.149+02	4.236+06	6.297−05
100	249	3.527+02	4.671+06	1.743−04	102	283	3.137+02	3.877+06	8.582−05
100	251	3.521+02	7.945+06	1.477−04	103	181	7.044+02	6.063+05	4.510−05
100	254	3.447+02	1.185+07	4.222−04	103	182	7.032+02	9.031+04	1.339−05
100	258	3.398+02	1.274+08	2.205−03	103	196	5.795+02	1.173+06	1.181−04
100	263	3.375+02	2.960+06	1.011−04	103	210	4.733+02	4.725+06	1.587−04
100	266	3.321+02	8.856+07	1.465−03	103	211	4.706+02	3.839+05	2.550−05
100	274	3.230+02	1.365+06	4.268−05	103	214	4.472+02	5.180+07	3.106−03
100	280	3.145+02	4.862+07	7.211−04	103	239	3.957+02	3.528+05	1.656−05
100	281	3.131+02	2.133+07	6.268−04	103	242	3.925+02	8.155+05	1.884−05
100	282	3.097+02	2.420+07	6.961−04	103	245	3.882+02	8.269+06	3.737−04
100	284	3.040+02	7.372+08	1.022−02	103	249	3.606+02	4.326+07	1.687−03
100	287	3.008+02	3.318+06	4.502−05	103	251	3.599+02	1.011+08	1.963−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
103	254	3.522+02	1.518+07	5.646−04	106	224	4.420+02	1.294+06	3.791−05
103	258	3.471+02	4.202+06	7.590−05	106	225	4.401+02	4.777+05	2.081−05
103	266	3.391+02	1.378+07	2.376−04	106	226	4.391+02	7.894+05	3.423−05
103	274	3.296+02	1.317+08	4.290−03	106	232	4.278+02	1.510+06	2.071−05
103	280	3.208+02	9.802+07	1.512−03	106	233	4.261+02	9.683+05	3.953−05
103	281	3.192+02	3.774+07	1.153−03	106	235	4.175+02	6.304+05	1.648−05
103	282	3.158+02	2.669+07	7.979−04	106	238	4.079+02	2.137+06	7.997−05
103	284	3.098+02	3.457+07	4.975−04	106	244	3.968+02	1.753+06	6.209−05
104	196	5.833+02	1.689+06	5.742−05	106	249	3.672+02	3.184+06	6.436−05
104	197	5.719+02	1.402+07	6.874−04	106	250	3.673+02	2.499+07	7.581−04
104	211	4.731+02	3.116+06	6.971−05	106	255	3.581+02	3.764+07	1.085−03
104	212	4.701+02	1.627+06	5.390−05	106	258	3.533+02	3.818+07	3.572−04
104	215	4.467+02	1.884+06	5.635−05	106	259	3.526+02	1.934+06	5.408−05
104	218	4.447+02	1.573+07	6.216−04	106	260	3.520+02	4.361+07	1.215−03
104	222	4.377+02	3.224+05	1.235−05	106	263	3.507+02	4.756+07	8.770−04
104	223	4.371+02	1.292+06	4.935−05	106	266	3.450+02	1.015+08	9.051−04
104	226	4.317+02	7.681+05	2.147−05	106	274	3.351+02	6.927+06	1.166−04
104	237	4.050+02	4.003+06	1.313−04	106	276	3.335+02	2.663+07	6.663−04
104	243	3.928+02	6.126+06	1.889−04	106	280	3.260+02	2.220+06	1.769−05
104	245	3.899+02	8.070+05	1.226−05	106	281	3.244+02	1.712+07	2.702−04
104	246	3.688+02	8.002+05	1.632−05	106	283	3.196+02	5.521+07	1.268−03
104	250	3.621+02	7.994+07	1.571−03	106	287	3.113+02	6.006+06	4.363−05
104	252	3.594+02	4.736+06	1.222−04	107	182	7.311+02	1.274+05	1.021−05
104	254	3.536+02	1.298+07	1.622−04	107	196	5.983+02	4.494+06	2.412−04
104	255	3.532+02	1.575+07	2.945−04	107	197	5.863+02	4.436+06	3.429−04
104	257	3.495+02	7.601+06	1.856−04	107	210	4.857+02	6.363+06	1.125−04
104	259	3.479+02	4.321+06	7.839−05	107	211	4.830+02	8.480+05	2.966−05
104	260	3.472+02	1.091+07	1.971−04	107	212	4.798+02	2.971+06	1.538−04
104	261	3.470+02	3.120+07	7.510−04	107	214	4.583+02	2.925+06	9.211−05
104	263	3.460+02	5.801+06	6.940−05	107	215	4.554+02	2.360+07	1.101−03
104	265	3.425+02	1.038+07	1.826−04	107	225	4.409+02	2.100+06	9.182−05
104	267	3.403+02	1.556+08	3.600−03	107	234	4.249+02	7.616+05	2.061−05
104	269	3.370+02	1.245+07	2.826−04	107	238	4.086+02	5.106+05	1.917−05
104	274	3.308+02	2.220+06	2.428−05	107	239	4.044+02	5.040+05	1.235−05
104	275	3.307+02	9.946+06	2.174−04	107	242	4.011+02	1.852+06	2.233−05
104	278	3.267+02	3.940+06	8.405−05	107	244	3.975+02	9.435+06	3.352−04
104	281	3.204+02	8.805+06	9.034−05	107	245	3.966+02	1.376+06	3.245−05
104	283	3.157+02	1.571+07	2.348−04	107	249	3.678+02	4.143+07	8.401−04
105	248	3.624+02	6.937+07	1.366−03	107	250	3.678+02	2.859+06	8.698−05
105	253	3.551+02	1.010+07	1.637−04	107	251	3.671+02	7.490+06	7.566−05
105	264	3.456+02	1.703+06	2.614−05	107	254	3.591+02	3.888+07	7.517−04
105	271	3.339+02	1.280+06	1.834−05	107	255	3.586+02	1.127+07	3.261−04
105	273	3.333+02	2.244+07	3.738−04	107	258	3.538+02	2.088+07	1.959−04
106	196	5.968+02	2.110+06	1.126−04	107	259	3.531+02	1.350+07	3.786−04
106	210	4.848+02	2.754+06	4.852−05	107	260	3.525+02	9.310+06	2.602−04
106	211	4.820+02	9.654+06	3.363−04	107	263	3.512+02	4.138+07	7.653−04
106	212	4.788+02	8.665+06	4.468−04	107	265	3.476+02	2.888+07	7.846−04
106	213	4.607+02	7.460+05	3.561−05	107	266	3.455+02	1.835+07	1.641−04
106	214	4.574+02	2.537+06	7.959−05	107	274	3.356+02	2.941+07	4.964−04
106	215	4.546+02	1.394+07	6.476−04	107	276	3.340+02	6.537+07	1.640−03

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
107	281	3.249+02	3.245+07	5.134−04	109	244	3.996+02	2.122+06	3.809−05
107	282	3.213+02	9.084+07	1.406−03	109	250	3.696+02	1.326+07	2.036−04
107	283	3.201+02	1.992+07	4.589−04	109	252	3.668+02	5.836+07	1.177−03
107	284	3.151+02	3.274+07	2.437−04	109	255	3.604+02	1.362+06	1.989−05
108	183	7.335+02	1.280+05	1.032−05	109	259	3.548+02	3.602+06	5.099−05
108	196	6.015+02	6.595+06	2.384−04	109	260	3.542+02	6.873+07	9.693−04
108	197	5.893+02	6.105+06	3.179−04	109	261	3.539+02	1.468+07	2.757−04
108	211	4.850+02	1.531+06	3.600−05	109	262	3.540+02	1.345+08	3.159−03
108	214	4.601+02	1.954+06	4.136−05	109	265	3.492+02	2.208+07	3.028−04
108	215	4.572+02	4.940+06	1.549−04	109	267	3.469+02	2.802+06	5.056−05
108	218	4.551+02	1.576+07	6.527−04	109	269	3.435+02	7.777+05	1.376−05
108	222	4.479+02	1.471+06	5.897−05	109	270	3.434+02	3.264+07	7.210−04
108	223	4.472+02	3.265+05	1.305−05	109	272	3.399+02	1.388+06	3.006−05
108	226	4.416+02	8.632+05	2.524−05	109	275	3.370+02	1.549+07	2.636−04
108	233	4.285+02	6.211+05	1.709−05	109	276	3.355+02	1.290+06	1.633−05
108	237	4.137+02	4.561+06	1.560−04	109	279	3.293+02	3.288+07	6.683−04
108	238	4.101+02	1.286+06	3.242−05	109	283	3.214+02	1.865+07	2.166−04
108	243	4.009+02	1.238+07	3.977−04	109	285	3.161+02	2.039+07	3.055−04
108	245	3.980+02	4.506+06	7.133−05	110	197	5.932+02	1.236+06	6.517−05
108	249	3.690+02	2.184+06	2.971−05	110	215	4.596+02	1.188+06	3.760−05
108	250	3.690+02	2.585+07	5.278−04	110	218	4.574+02	1.955+06	8.175−05
108	252	3.662+02	8.189+06	2.195−04	110	222	4.501+02	4.754+05	1.925−05
108	254	3.602+02	1.182+06	1.533−05	110	225	4.448+02	7.066+05	2.096−05
108	255	3.598+02	5.400+07	1.048−03	110	226	4.438+02	5.830+05	1.721−05
108	257	3.560+02	4.058+06	1.028−04	110	237	4.156+02	3.070+06	1.060−04
108	260	3.536+02	2.859+06	5.358−05	110	238	4.120+02	1.180+06	3.003−05
108	261	3.534+02	3.483+07	8.692−04	110	239	4.076+02	2.324+06	3.858−05
108	263	3.523+02	5.986+07	7.425−04	110	243	4.027+02	3.160+06	1.024−04
108	265	3.486+02	9.758+06	1.778−04	110	245	3.997+02	4.995+06	7.976−05
108	267	3.464+02	1.142+07	2.738−04	110	249	3.705+02	2.477+07	3.398−04
108	269	3.430+02	1.250+07	2.940−04	110	250	3.705+02	1.138+07	2.342−04
108	275	3.365+02	5.243+05	1.186−05	110	252	3.676+02	2.757+06	7.448−05
108	276	3.350+02	4.976+06	8.371−05	110	254	3.617+02	4.947+07	6.468−04
108	278	3.323+02	5.694+07	1.257−03	110	255	3.612+02	1.339+07	2.619−04
108	281	3.258+02	2.525+07	2.679−04	110	257	3.574+02	2.848+07	7.272−04
108	282	3.222+02	1.589+06	1.648−05	110	259	3.556+02	3.562+07	6.752−04
108	283	3.210+02	2.083+07	3.216−04	110	261	3.547+02	9.185+07	2.310−03
108	285	3.157+02	8.256+06	1.645−04	110	265	3.500+02	3.791+07	6.961−04
109	184	7.323+02	1.739+05	1.398−05	110	267	3.477+02	7.367+06	1.780−04
109	185	7.272+02	1.329+05	1.317−05	110	269	3.443+02	2.942+06	6.970−05
109	190	6.617+02	1.471+05	1.207−05	110	274	3.378+02	7.890+06	8.998−05
109	197	5.909+02	2.249+06	8.832−05	110	275	3.377+02	2.016+07	4.596−04
109	212	4.829+02	3.214+06	8.426−05	110	278	3.335+02	6.017+06	1.338−04
109	218	4.561+02	5.016+06	1.564−04	110	282	3.233+02	3.303+07	3.451−04
109	219	4.559+02	8.659+06	3.372−04	111	196	6.069+02	1.245+07	1.376−03
109	220	4.532+02	1.246+07	4.795−04	111	234	4.292+02	2.124+05	1.173−05
109	222	4.488+02	8.124+05	2.453−05	111	239	4.083+02	1.341+06	6.701−05
109	223	4.481+02	3.729+06	1.123−04	111	242	4.049+02	1.083+06	2.662−05
109	226	4.425+02	6.316+05	1.390−05	111	245	4.004+02	8.663+05	4.164−05
109	240	4.061+02	4.314+07	1.333−03	111	249	3.710+02	1.783+06	7.358−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
111	251	3.703+02	7.629+05	1.569−05	113	256	3.651+02	3.107+06	7.762−05
111	254	3.622+02	1.147+07	4.511−04	113	259	3.613+02	1.153+07	1.693−04
111	258	3.568+02	1.940+08	3.703−03	113	260	3.606+02	2.403+07	3.515−04
111	263	3.542+02	1.184+06	4.454−05	113	261	3.604+02	2.111+07	4.111−04
111	266	3.483+02	1.744+08	3.173−03	113	262	3.604+02	9.315+07	2.268−03
111	274	3.383+02	1.540+07	5.285−04	113	265	3.555+02	4.670+06	6.637−05
111	280	3.290+02	8.893+06	1.443−04	113	267	3.531+02	1.699+07	3.176−04
111	281	3.274+02	1.126+08	3.618−03	113	269	3.496+02	1.004+07	1.841−04
111	282	3.237+02	2.646+08	8.313−03	113	270	3.494+02	3.458+07	7.912−04
111	284	3.175+02	1.864+08	2.818−03	113	272	3.459+02	1.697+06	3.805−05
111	287	3.140+02	1.923+06	2.844−05	113	275	3.428+02	9.671+05	1.704−05
112	196	6.103+02	3.691+06	2.061−04	113	276	3.413+02	1.368+07	1.792−04
112	206	5.346+02	1.879+05	1.208−05	113	278	3.385+02	4.911+06	8.437−05
112	211	4.908+02	2.854+05	1.030−05	113	279	3.349+02	1.577+06	3.315−05
112	214	4.653+02	2.323+06	7.540−05	113	283	3.268+02	1.364+07	1.638−04
112	215	4.624+02	5.834+06	2.805−04	113	285	3.213+02	4.018+07	6.217−04
112	225	4.474+02	5.669+06	2.552−04	113	286	3.210+02	2.585+07	4.993−04
112	229	4.419+02	4.425+05	1.296−05	114	205	5.479+02	2.788+05	1.673−05
112	241	4.059+02	1.376+06	1.699−05	114	211	4.988+02	1.366+06	3.395−05
112	242	4.064+02	2.691+07	3.332−04	114	218	4.672+02	3.553+07	1.550−03
112	245	4.018+02	2.853+06	6.907−05	114	222	4.596+02	4.786+06	2.020−04
112	249	3.723+02	6.930+06	1.440−04	114	223	4.589+02	1.160+06	4.881−05
112	251	3.716+02	1.002+08	1.037−03	114	233	4.391+02	5.084+05	1.470−05
112	254	3.634+02	3.310+07	6.552−04	114	237	4.236+02	3.375+06	1.211−04
112	255	3.629+02	8.035+05	2.380−05	114	239	4.154+02	1.360+07	2.344−04
112	259	3.573+02	3.398+08	9.756−03	114	243	4.103+02	5.866+06	1.974−04
112	260	3.566+02	1.214+07	3.472−04	114	244	4.081+02	4.464+06	1.115−04
112	265	3.516+02	5.205+06	1.447−04	114	245	4.072+02	4.949+06	8.201−05
112	274	3.393+02	3.958+07	6.831−04	114	249	3.769+02	3.408+07	4.839−04
112	276	3.377+02	3.522+06	9.034−05	114	250	3.769+02	7.736+06	1.648−04
112	280	3.300+02	9.028+07	7.370−04	114	252	3.740+02	4.180+05	1.168−05
112	281	3.284+02	4.240+07	6.854−04	114	257	3.633+02	3.797+07	1.002−03
112	282	3.247+02	6.273+07	9.914−04	114	259	3.615+02	1.993+07	3.906−04
112	283	3.235+02	1.766+07	4.156−04	114	261	3.606+02	1.771+08	4.603−03
112	284	3.184+02	8.186+06	6.222−05	114	263	3.595+02	3.969+06	5.126−05
113	197	6.092+02	4.867+05	2.031−05	114	265	3.557+02	1.135+07	2.154−04
113	212	4.950+02	8.057+05	2.220−05	114	267	3.533+02	4.204+07	1.049−03
113	218	4.669+02	6.708+05	2.192−05	114	269	3.498+02	2.246+07	5.493−04
113	219	4.667+02	4.911+06	2.004−04	114	274	3.431+02	7.352+06	8.650−05
113	222	4.592+02	1.081+06	3.418−05	114	275	3.430+02	1.978+07	4.652−04
113	226	4.527+02	4.366+05	1.006−05	114	276	3.415+02	5.587+07	9.767−04
113	227	4.518+02	5.644+05	2.159−05	114	278	3.387+02	5.649+07	1.295−03
113	231	4.438+02	1.981+06	5.849−05	114	281	3.320+02	1.876+07	2.066−04
113	237	4.234+02	1.194+06	3.208−05	114	282	3.282+02	2.005+06	2.158−05
113	238	4.196+02	3.581+06	7.090−05	114	283	3.269+02	2.237+08	3.584−03
113	240	4.147+02	3.491+06	1.125−04	114	285	3.214+02	2.909+07	6.007−04
113	244	4.079+02	1.096+06	2.051−05	115	217	4.731+02	6.236+06	2.511−04
113	250	3.767+02	1.058+07	1.688−04	115	219	4.713+02	3.405+06	1.134−04
113	252	3.738+02	1.887+06	3.952−05	115	220	4.684+02	2.977+06	9.791−05
113	255	3.671+02	8.458+06	1.282−04	115	223	4.630+02	8.472+05	2.178−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
115	227	4.561+02	3.434+06	1.071−04	117	243	4.223+02	3.588+06	9.592−05
115	237	4.272+02	3.428+06	7.502−05	117	244	4.200+02	5.322+06	1.056−04
115	240	4.183+02	1.310+06	3.435−05	117	250	3.870+02	2.877+06	4.846−05
115	252	3.767+02	1.283+07	2.183−04	117	252	3.839+02	4.805+06	1.062−04
115	253	3.727+02	9.872+05	2.466−05	117	255	3.769+02	1.829+06	2.922−05
115	256	3.679+02	1.484+06	3.012−05	117	257	3.727+02	7.086+05	1.476−05
115	261	3.631+02	9.303+05	1.472−05	117	259	3.708+02	2.193+06	3.390−05
115	262	3.632+02	2.236+07	4.421−04	117	260	3.701+02	5.111+06	7.871−05
115	264	3.622+02	2.784+08	6.574−03	117	261	3.699+02	3.419+06	7.012−05
115	267	3.558+02	1.361+07	2.066−04	117	262	3.699+02	8.008+07	2.053−03
115	270	3.520+02	7.467+06	1.387−04	117	265	3.647+02	8.719+06	1.304−04
115	271	3.495+02	3.427+07	7.530−04	117	267	3.622+02	2.132+07	4.192−04
115	272	3.484+02	2.889+07	5.259−04	117	269	3.585+02	2.712+06	5.225−05
115	275	3.453+02	1.966+06	2.811−05	117	270	3.583+02	6.153+07	1.480−03
115	278	3.410+02	6.186+06	8.624−05	117	272	3.546+02	1.264+07	2.978−04
115	279	3.373+02	9.355+06	1.596−04	117	276	3.498+02	7.900+05	1.087−05
115	285	3.235+02	3.961+07	4.970−04	117	278	3.468+02	2.650+07	4.780−04
115	286	3.232+02	1.746+06	2.735−05	117	279	3.431+02	1.150+08	2.536−03
116	197	6.192+02	3.625+05	1.563−05	117	283	3.345+02	5.684+06	7.151−05
116	215	4.750+02	4.348+05	1.103−05	117	285	3.288+02	1.664+08	2.695−03
116	219	4.725+02	7.867+05	3.291−05	117	286	3.285+02	3.457+06	6.992−05
116	223	4.642+02	5.893+05	1.904−05	118	196	6.681+02	1.028+06	1.375−04
116	231	4.491+02	6.418+05	1.940−05	118	214	4.982+02	8.084+05	6.015−05
116	237	4.282+02	2.196+06	6.038−05	118	230	4.678+02	2.279+06	7.479−05
116	238	4.243+02	5.620+05	1.138−05	118	239	4.351+02	1.547+07	8.783−04
116	240	4.193+02	5.761+06	1.898−04	118	241	4.306+02	5.708+05	1.587−05
116	250	3.805+02	1.034+07	1.684−04	118	242	4.313+02	7.963+06	2.221−04
116	252	3.775+02	5.069+06	1.083−04	118	245	4.261+02	6.745+06	3.672−04
116	255	3.707+02	2.004+07	3.096−04	118	249	3.930+02	1.036+07	4.797−04
116	256	3.686+02	2.574+06	6.555−05	118	251	3.922+02	4.025+07	9.285−04
116	257	3.666+02	1.327+07	2.675−04	118	254	3.831+02	1.006+07	4.425−04
116	259	3.648+02	5.202+06	7.784−05	118	258	3.771+02	1.154+07	2.460−04
116	261	3.639+02	3.965+06	7.871−05	118	263	3.742+02	2.485+07	1.043−03
116	262	3.639+02	1.276+08	3.166−03	118	266	3.676+02	6.560+07	1.329−03
116	265	3.589+02	9.595+06	1.389−04	118	274	3.565+02	2.144+08	8.167−03
116	267	3.565+02	3.237+06	6.166−05	118	280	3.462+02	1.906+07	3.424−04
116	269	3.529+02	1.225+07	2.287−04	118	281	3.444+02	6.182+05	2.199−05
116	270	3.527+02	9.853+06	2.297−04	118	282	3.404+02	1.956+07	6.795−04
116	272	3.491+02	9.560+06	2.183−04	118	284	3.335+02	6.001+07	1.001−03
116	275	3.460+02	5.350+07	9.600−04	118	287	3.296+02	9.072+05	1.478−05
116	276	3.444+02	4.033+06	5.379−05	119	197	6.600+02	2.394+05	2.345−05
116	279	3.379+02	2.586+06	5.535−05	119	210	5.352+02	1.563+06	3.355−05
116	283	3.296+02	2.248+06	2.746−05	119	214	5.021+02	6.008+05	2.270−05
116	286	3.238+02	1.356+07	2.664−04	119	215	4.987+02	2.422+06	1.354−04
117	185	7.977+02	1.733+05	2.067−05	119	224	4.836+02	2.917+05	1.023−05
117	219	4.826+02	3.487+07	1.522−03	119	226	4.801+02	2.292+05	1.188−05
117	220	4.796+02	1.229+06	5.296−05	119	229	4.750+02	1.072+06	3.627−05
117	227	4.667+02	2.076+06	8.474−05	119	230	4.713+02	1.484+06	2.471−05
117	238	4.325+02	4.257+06	8.952−05	119	234	4.623+02	4.743+05	1.519−05
117	240	4.272+02	2.255+07	7.711−04	119	238	4.431+02	1.540+07	6.797−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
119	239	4.381+02	1.773+06	5.100−05	121	233	4.691+02	8.092+05	2.669−05
119	242	4.342+02	2.916+06	4.122−05	121	237	4.514+02	1.065+07	4.340−04
119	244	4.300+02	3.842+06	1.598−04	121	238	4.471+02	2.586+06	7.752−05
119	245	4.290+02	1.399+07	3.860−04	121	239	4.420+02	1.275+06	2.490−05
119	249	3.955+02	4.068+07	9.537−04	121	243	4.363+02	4.960+06	1.887−04
119	250	3.955+02	4.830+05	1.699−05	121	244	4.338+02	1.394+07	3.932−04
119	251	3.947+02	3.450+07	4.028−04	121	245	4.328+02	7.815+05	1.463−05
119	254	3.855+02	1.044+07	2.324−04	121	249	3.987+02	1.310+07	2.081−04
119	255	3.849+02	3.169+06	1.056−04	121	250	3.988+02	5.726+07	1.365−03
119	258	3.793+02	9.424+06	1.017−04	121	252	3.954+02	3.150+07	9.846−04
119	260	3.779+02	3.142+07	1.009−03	121	255	3.880+02	2.066+07	4.662−04
119	263	3.764+02	4.142+07	8.797−04	121	259	3.815+02	4.989+05	1.089−05
119	265	3.722+02	2.762+06	8.604−05	121	260	3.808+02	3.306+07	7.188−04
119	266	3.698+02	1.155+07	1.184−04	121	261	3.805+02	1.633+06	4.726−05
119	274	3.585+02	3.529+07	6.798−04	121	263	3.793+02	1.246+07	1.791−04
119	276	3.567+02	2.677+08	7.660−03	121	265	3.751+02	9.825+06	2.072−04
119	280	3.481+02	2.579+07	2.343−04	121	269	3.685+02	8.089+06	2.196−04
119	281	3.463+02	1.352+07	2.430−04	121	275	3.610+02	4.694+07	1.223−03
119	282	3.422+02	2.172+07	3.812−04	121	276	3.593+02	1.183+07	2.290−04
119	283	3.408+02	3.937+06	1.028−04	121	278	3.562+02	1.689+08	4.284−03
119	284	3.352+02	4.946+07	4.167−04	121	281	3.488+02	3.903+06	4.745−05
120	218	4.946+02	4.791+05	1.406−05	121	282	3.446+02	3.946+07	4.683−04
120	219	4.944+02	3.324+05	1.218−05	121	283	3.432+02	2.729+07	4.820−04
120	227	4.777+02	1.059+06	3.623−05	122	196	7.133+02	8.326+06	4.234−04
120	240	4.364+02	5.391+06	1.539−04	122	197	6.963+02	8.319+05	6.047−05
120	243	4.313+02	9.819+05	2.190−05	122	211	5.552+02	1.588+06	4.892−05
120	252	3.913+02	8.154+06	1.498−04	122	212	5.510+02	1.050+06	4.779−05
120	253	3.870+02	1.975+07	5.320−04	122	214	5.228+02	2.502+06	6.836−05
120	256	3.818+02	1.167+06	2.550−05	122	222	5.071+02	5.581+05	2.868−05
120	262	3.768+02	4.187+06	8.911−05	122	223	5.062+02	5.435+05	2.784−05
120	264	3.758+02	2.048+08	5.202−03	122	233	4.823+02	4.758+05	1.659−05
120	267	3.688+02	4.917+06	8.020−05	122	234	4.798+02	9.908+05	2.280−05
120	269	3.650+02	2.635+06	4.210−05	122	237	4.637+02	3.033+05	1.304−05
120	270	3.648+02	3.882+07	7.744−04	122	238	4.592+02	7.884+05	2.492−05
120	271	3.620+02	1.804+07	4.254−04	122	239	4.538+02	5.186+05	1.067−05
120	272	3.609+02	2.635+07	5.145−04	122	243	4.477+02	1.111+06	4.451−05
120	275	3.576+02	5.767+06	8.843−05	122	244	4.451+02	2.365+06	7.026−05
120	278	3.529+02	2.482+06	3.707−05	122	247	4.155+02	6.210+05	1.072−05
120	279	3.490+02	3.733+06	6.815−05	122	249	4.082+02	3.572+06	5.950−05
120	285	3.342+02	8.309+06	1.113−04	122	250	4.083+02	4.421+06	1.105−04
121	196	6.847+02	1.100+06	5.151−05	122	252	4.048+02	6.740+07	2.208−03
121	211	5.377+02	1.800+06	5.202−05	122	254	3.976+02	1.226+06	1.936−05
121	212	5.338+02	1.765+06	7.541−05	122	255	3.970+02	3.523+06	8.325−05
121	213	5.114+02	6.782+05	2.658−05	122	257	3.924+02	5.042+05	1.552−05
121	214	5.073+02	4.232+05	1.088−05	122	260	3.895+02	9.466+06	2.153−04
121	215	5.038+02	3.719+05	1.415−05	122	261	3.892+02	7.481+06	2.265−04
121	218	5.012+02	3.649+06	1.832−04	122	263	3.879+02	4.240+07	6.378−04
121	222	4.924+02	6.597+05	3.198−05	122	265	3.835+02	2.330+06	5.137−05
121	223	4.917+02	9.145+05	4.419−05	122	267	3.807+02	1.730+07	5.014−04
121	229	4.796+02	8.605+05	1.979−05	122	269	3.767+02	3.424+06	9.712−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
122	274	3.689+02	1.192+06	1.621−05	124	249	4.132+02	2.247+07	5.753−04
122	275	3.688+02	4.522+07	1.229−03	124	250	4.133+02	3.263+07	1.254−03
122	276	3.670+02	1.437+06	2.902−05	124	251	4.124+02	6.527+06	8.320−05
122	278	3.638+02	4.994+06	1.321−04	124	254	4.023+02	1.445+06	3.507−05
122	281	3.560+02	3.952+06	5.007−05	124	258	3.956+02	4.324+07	5.074−04
122	282	3.517+02	1.119+07	1.383−04	124	259	3.948+02	3.146+06	1.103−04
122	283	3.503+02	6.180+06	1.137−04	124	260	3.940+02	5.490+07	1.917−03
122	285	3.440+02	9.845+06	2.328−04	124	266	3.853+02	1.009+08	1.123−03
123	197	7.029+02	2.676+06	1.487−04	124	274	3.730+02	3.758+06	7.838−05
123	213	5.309+02	5.870+05	1.860−05	124	276	3.711+02	2.888+07	8.943−04
123	215	5.228+02	7.938+05	2.439−05	124	281	3.598+02	1.211+07	2.351−04
123	218	5.200+02	5.463+05	2.214−05	124	282	3.554+02	8.522+05	1.614−05
123	219	5.197+02	3.176+06	1.608−04	124	283	3.539+02	3.381+07	9.525−04
123	220	5.162+02	3.767+06	1.881−04	124	284	3.479+02	3.553+06	3.224−05
123	227	5.013+02	3.053+05	1.438−05	125	196	7.332+02	8.184+06	4.398−04
123	231	4.915+02	6.522+05	2.362−05	125	197	7.153+02	1.445+06	1.108−04
123	233	4.855+02	5.935+05	1.573−05	125	211	5.672+02	4.062+05	1.306−05
123	237	4.666+02	1.267+07	4.134−04	125	214	5.335+02	1.424+06	4.050−05
123	238	4.620+02	5.642+05	1.354−05	125	215	5.296+02	4.548+05	1.913−05
123	240	4.560+02	1.268+07	4.941−04	125	218	5.268+02	2.708+06	1.502−04
123	243	4.504+02	1.903+07	5.789−04	125	222	5.171+02	4.504+05	2.407−05
123	252	4.070+02	2.060+07	5.116−04	125	233	4.914+02	3.936+05	1.424−05
123	255	3.991+02	1.116+06	1.998−05	125	234	4.888+02	5.690+05	1.359−05
123	256	3.968+02	2.531+06	7.466−05	125	237	4.720+02	5.189+05	2.311−05
123	259	3.923+02	2.824+06	4.888−05	125	238	4.674+02	3.593+06	1.177−04
123	260	3.915+02	5.378+07	9.269−04	125	244	4.528+02	4.205+06	1.293−04
123	262	3.913+02	9.776+06	2.805−04	125	247	4.222+02	9.395+05	1.674−05
123	265	3.855+02	2.011+06	3.359−05	125	250	4.148+02	4.622+06	1.192−04
123	267	3.827+02	8.271+06	1.816−04	125	252	4.112+02	2.830+07	9.562−04
123	269	3.786+02	4.674+06	1.004−04	125	260	3.954+02	5.518+05	1.293−05
123	270	3.784+02	1.857+07	4.982−04	125	263	3.938+02	4.103+07	6.357−04
123	272	3.742+02	1.983+07	5.205−04	125	265	3.892+02	1.576+06	3.579−05
123	275	3.706+02	2.825+06	5.818−05	125	267	3.863+02	5.028+06	1.500−04
123	278	3.656+02	1.262+06	2.529−05	125	269	3.822+02	3.748+06	1.094−04
123	279	3.614+02	2.424+08	5.934−03	125	274	3.742+02	2.241+06	3.136−05
123	283	3.519+02	2.020+07	2.813−04	125	275	3.740+02	9.764+06	2.731−04
123	285	3.456+02	1.345+07	2.407−04	125	276	3.722+02	4.861+06	1.010−04
123	286	3.453+02	1.630+06	3.643−05	125	278	3.689+02	1.541+08	4.193−03
124	197	7.110+02	2.804+05	3.188−05	125	281	3.609+02	1.858+06	2.419−05
124	210	5.683+02	5.657+06	1.370−04	125	282	3.565+02	1.190+07	1.512−04
124	211	5.645+02	4.179+05	1.997−05	125	283	3.550+02	1.361+07	2.571−04
124	212	5.602+02	1.448+06	1.022−04	125	285	3.485+02	1.045+07	2.538−04
124	213	5.355+02	1.990+05	1.284−05	126	196	7.387+02	6.931+05	1.134−04
124	226	5.066+02	2.605+05	1.503−05	126	210	5.743+02	1.833+06	9.065−05
124	233	4.893+02	4.846+05	2.610−05	126	211	5.705+02	2.252+06	2.198−04
124	234	4.868+02	1.770+06	6.287−05	126	234	4.912+02	1.472+06	1.065−04
124	239	4.600+02	2.758+06	8.746−05	126	239	4.639+02	2.715+05	1.752−05
124	242	4.557+02	1.143+06	1.779−05	126	242	4.596+02	3.686+06	1.167−04
124	244	4.511+02	2.618+05	1.198−05	126	245	4.538+02	2.674+05	1.651−05
124	245	4.500+02	2.242+06	6.807−05	126	249	4.164+02	1.316+07	6.842−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
126	251	4.155+02	2.505+07	6.484−04	129	249	4.267+02	7.015+06	3.829−04
126	254	4.053+02	3.569+06	1.758−04	129	251	4.258+02	1.575+07	4.281−04
126	258	3.986+02	1.331+07	3.169−04	129	254	4.150+02	1.452+06	7.498−05
126	263	3.953+02	7.371+07	3.454−03	129	258	4.080+02	4.294+06	1.071−04
126	266	3.880+02	3.564+07	8.046−04	129	263	4.045+02	4.630+07	2.272−03
126	274	3.756+02	8.794+05	3.720−05	129	266	3.969+02	7.927+06	1.872−04
126	280	3.642+02	2.861+07	5.689−04	129	280	3.720+02	1.306+08	2.710−03
126	281	3.623+02	5.110+06	2.011−04	129	281	3.700+02	5.810+07	2.385−03
126	282	3.578+02	2.229+07	8.553−04	129	282	3.653+02	5.881+06	2.353−04
126	284	3.502+02	3.881+06	7.135−05	129	284	3.574+02	1.044+06	1.999−05
127	199	6.757+02	6.879+05	5.494−05	130	205	6.588+02	2.896+05	1.884−05
127	202	6.592+02	2.042+05	1.330−05	130	206	6.535+02	4.506+05	2.163−05
127	217	5.350+02	2.922+06	1.254−04	130	220	5.414+02	6.241+05	3.428−05
127	219	5.327+02	1.099+06	3.895−05	130	222	5.352+02	3.338+06	1.433−04
127	248	4.198+02	3.616+08	1.115−02	130	225	5.277+02	6.289+05	1.969−05
127	253	4.100+02	8.620+06	2.173−04	130	240	4.756+02	2.840+05	1.203−05
127	256	4.043+02	1.189+06	2.428−05	130	244	4.666+02	1.246+06	3.051−05
127	262	3.986+02	3.097+06	6.147−05	130	256	4.115+02	2.720+08	8.630−03
127	264	3.975+02	3.046+07	7.214−04	130	257	4.090+02	5.438+05	1.364−05
127	271	3.821+02	5.190+05	1.136−05	130	259	4.067+02	3.144+06	5.848−05
127	273	3.813+02	1.226+07	3.117−04	130	261	4.055+02	4.379+07	1.080−03
128	202	6.632+02	1.953+05	1.545−05	130	269	3.920+02	2.838+06	6.536−05
128	204	6.520+02	2.714+05	1.730−05	130	270	3.917+02	1.982+07	5.700−04
128	205	6.443+02	2.036+05	1.014−05	130	272	3.873+02	6.716+07	1.888−03
128	218	5.356+02	5.073+05	1.745−05	130	276	3.815+02	6.551+05	1.072−05
128	219	5.353+02	3.252+05	1.397−05	130	278	3.781+02	7.057+05	1.512−05
128	220	5.316+02	3.495+06	1.481−04	130	283	3.634+02	3.310+06	4.916−05
128	240	4.680+02	5.213+05	1.712−05	130	285	3.567+02	1.662+06	3.170−05
128	243	4.621+02	4.300+05	1.101−05	130	286	3.564+02	7.681+05	1.828−05
128	253	4.116+02	2.575+08	7.847−03	131	178	1.095+03	4.902+04	1.323−05
128	256	4.058+02	1.388+07	3.426−04	131	181	1.018+03	1.321+05	1.027−05
128	261	4.000+02	4.494+06	8.624−05	131	183	1.011+03	9.217+04	2.119−05
128	262	4.000+02	4.135+07	9.922−04	131	210	5.968+02	2.475+07	6.608−04
128	264	3.989+02	1.184+07	3.388−04	131	211	5.927+02	4.384+06	2.308−04
128	270	3.865+02	1.184+07	2.652−04	131	212	5.879+02	9.586+06	7.451−04
128	271	3.835+02	3.934+07	1.041−03	131	213	5.608+02	2.086+06	1.476−04
128	272	3.822+02	5.226+06	1.145−04	131	224	5.334+02	4.573+05	1.950−05
128	285	3.524+02	1.797+06	2.676−05	131	229	5.229+02	4.631+05	1.898−05
129	181	1.010+03	7.782+04	1.190−05	131	232	5.128+02	3.516+06	6.932−05
129	182	1.008+03	1.191+05	3.625−05	131	233	5.103+02	2.729+05	1.598−05
129	210	5.940+02	4.826+06	2.553−04	131	234	5.075+02	9.094+05	3.512−05
129	211	5.899+02	1.430+07	1.492−03	131	235	4.981+02	3.061+05	1.139−05
129	224	5.311+02	1.462+06	1.237−04	131	238	4.845+02	2.604+07	1.375−03
129	229	5.207+02	1.938+05	1.576−05	131	239	4.785+02	2.085+07	7.156−04
129	232	5.107+02	5.817+05	2.275−05	131	242	4.739+02	7.842+06	1.320−04
129	235	4.961+02	2.701+05	1.993−05	131	244	4.689+02	9.408+06	4.652−04
129	239	4.767+02	1.858+07	1.266−03	131	245	4.677+02	5.844+06	1.916−04
129	241	4.714+02	1.725+06	5.748−05	131	249	4.281+02	1.254+07	3.447−04
129	242	4.721+02	4.525+07	1.512−03	131	250	4.282+02	1.423+07	5.867−04
129	245	4.659+02	4.758+06	3.097−04	131	251	4.272+02	2.974+06	4.068−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
131	258	4.093+02	4.351+06	5.463−05	134	224	5.402+02	1.667+06	4.862−05
131	259	4.084+02	8.591+05	3.223−05	134	226	5.359+02	8.545+05	3.679−05
131	260	4.076+02	3.542+07	1.323−03	134	231	5.235+02	1.072+06	5.873−05
131	263	4.058+02	4.696+06	1.160−04	134	233	5.166+02	6.900+05	2.761−05
131	265	4.010+02	4.102+05	1.483−05	134	237	4.953+02	2.836+07	1.391−03
131	266	3.982+02	1.002+07	1.191−04	134	238	4.902+02	8.040+06	2.896−04
131	276	3.830+02	1.071+06	3.534−05	134	239	4.840+02	1.264+06	2.961−05
131	280	3.731+02	3.231+07	3.373−04	134	243	4.771+02	8.732+06	3.974−04
131	281	3.711+02	5.703+07	1.177−03	134	244	4.742+02	3.558+06	1.199−04
131	282	3.664+02	7.049+07	1.418−03	134	245	4.730+02	4.738+05	1.059−05
131	283	3.648+02	1.251+08	3.743−03	134	250	4.326+02	5.669+06	1.591−04
132	206	6.591+02	2.121+05	1.382−05	134	252	4.287+02	3.772+07	1.386−03
132	207	6.556+02	7.737+05	3.324−05	134	255	4.200+02	1.402+06	3.706−05
132	214	5.568+02	4.374+05	1.355−05	134	260	4.116+02	1.058+07	2.688−04
132	222	5.390+02	6.448+05	3.744−05	134	275	3.885+02	4.878+05	1.472−05
132	225	5.314+02	4.018+06	1.701−04	134	281	3.744+02	2.164+07	3.031−04
132	245	4.683+02	1.849+06	4.052−05	134	282	3.696+02	9.620+06	1.313−04
132	257	4.112+02	1.708+08	5.774−03	134	283	3.680+02	7.022+07	1.426−03
132	259	4.089+02	2.617+07	6.559−04	134	285	3.611+02	2.518+08	6.562−03
132	260	4.080+02	8.306+05	2.073−05	135	197	7.701+02	1.058+07	7.056−04
132	261	4.077+02	5.193+07	1.726−03	135	215	5.590+02	1.044+06	3.670−05
132	265	4.015+02	3.164+06	7.645−05	135	219	5.556+02	4.626+06	2.676−04
132	267	3.984+02	6.547+06	2.078−04	135	227	5.346+02	1.954+05	1.046−05
132	269	3.940+02	7.932+07	2.461−03	135	237	4.953+02	3.185+06	1.171−04
132	274	3.855+02	6.796+05	1.010−05	135	240	4.834+02	6.196+05	2.713−05
132	275	3.854+02	4.198+07	1.246−03	135	243	4.771+02	1.869+06	6.379−05
133	196	7.912+02	8.859+06	1.663−03	135	246	4.422+02	1.854+06	4.075−05
133	210	6.056+02	1.715+06	9.432−05	135	250	4.326+02	9.421+05	1.982−05
133	214	5.635+02	1.257+05	1.197−05	135	256	4.173+02	1.404+06	4.582−05
133	235	5.042+02	2.685+05	2.046−05	135	260	4.115+02	4.524+06	8.616−05
133	239	4.841+02	2.355+05	1.655−05	135	262	4.113+02	1.556+06	4.933−05
133	241	4.786+02	1.247+06	4.282−05	135	265	4.049+02	4.336+06	7.991−05
133	247	4.409+02	4.372+05	2.548−05	135	267	4.018+02	7.274+05	1.760−05
133	249	4.326+02	2.671+06	1.499−04	135	269	3.973+02	2.906+06	6.874−05
133	251	4.317+02	1.767+06	4.937−05	135	270	3.970+02	3.230+07	9.540−04
133	254	4.207+02	7.215+07	3.828−03	135	272	3.924+02	2.234+07	6.446−04
133	258	4.134+02	7.792+06	1.996−04	135	275	3.885+02	6.462+05	1.462−05
133	263	4.099+02	3.567+06	1.797−04	135	276	3.865+02	8.766+05	1.473−05
133	274	3.887+02	2.885+07	1.307−03	135	278	3.830+02	1.661+06	3.653−05
133	280	3.765+02	8.051+06	1.711−04	135	279	3.784+02	9.124+07	2.448−03
133	282	3.696+02	1.545+07	6.328−04	135	283	3.680+02	3.983+06	6.064−05
133	284	3.616+02	4.508+06	8.834−05	135	285	3.610+02	2.162+07	4.224−04
133	287	3.570+02	2.538+06	4.851−05	135	286	3.608+02	1.060+07	2.584−04
134	178	1.125+03	9.887+04	1.876−05	136	217	5.686+02	1.730+06	1.006−04
134	184	1.029+03	5.190+04	1.099−05	136	222	5.551+02	7.643+05	2.824−05
134	211	6.012+02	1.281+07	4.626−04	136	253	4.295+02	6.731+07	2.233−03
134	212	5.963+02	2.007+07	1.070−03	136	269	4.025+02	5.227+05	1.016−05
134	213	5.684+02	5.254+06	2.545−04	136	270	4.023+02	4.474+07	1.086−03
134	215	5.591+02	2.904+05	1.361−05	136	271	3.990+02	1.021+07	2.923−04
134	223	5.442+02	8.426+05	4.988−05	136	272	3.976+02	3.201+07	7.588−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
136	275	3.935+02	7.406+05	1.376−05	140	253	4.596+02	3.691+06	1.403−04
136	279	3.832+02	1.010+07	2.223−04	140	256	4.524+02	1.142+06	3.503−05
136	285	3.654+02	3.111+06	4.982−05	140	257	4.494+02	2.961+06	7.173−05
137	196	8.437+02	1.747+06	1.865−04	140	261	4.453+02	1.020+06	2.425−05
137	197	8.201+02	1.013+07	1.532−03	140	262	4.453+02	8.193+05	2.436−05
137	210	6.359+02	4.578+05	1.388−05	140	267	4.342+02	1.121+06	2.536−05
137	211	6.312+02	6.558+05	3.916−05	140	269	4.289+02	9.499+05	2.096−05
137	212	6.258+02	4.957+05	4.365−05	140	270	4.286+02	5.872+05	1.617−05
137	224	5.643+02	3.937+05	1.880−05	140	271	4.248+02	5.426+05	1.762−05
137	235	5.250+02	1.118+06	4.618−05	140	275	4.187+02	8.397+06	1.766−04
137	241	4.974+02	1.261+06	2.338−05	140	286	3.867+02	4.470+06	1.002−04
137	246	4.582+02	2.497+05	1.179−05	141	196	9.605+02	2.039+05	1.880−05
137	250	4.479+02	9.283+06	4.188−04	141	197	9.300+02	2.237+05	2.900−05
137	254	4.350+02	3.065+06	8.696−05	141	218	6.347+02	2.498+05	2.011−05
137	255	4.344+02	1.097+08	4.654−03	141	237	5.569+02	1.630+05	1.010−05
137	258	4.273+02	2.684+06	3.672−05	141	239	5.426+02	3.770+05	1.110−05
137	260	4.254+02	3.460+05	1.408−05	141	243	5.340+02	3.903+05	2.224−05
137	265	4.183+02	1.204+06	4.735−05	141	250	4.788+02	4.099+05	1.409−05
137	274	4.010+02	1.569+06	3.781−05	141	252	4.740+02	9.961+05	4.475−05
137	276	3.988+02	1.253+07	4.480−04	141	255	4.634+02	8.729+05	2.810−05
137	280	3.880+02	9.332+05	1.053−05	141	260	4.532+02	1.221+06	3.758−05
137	281	3.858+02	1.438+07	3.210−04	141	261	4.528+02	6.601+05	2.705−05
137	282	3.807+02	3.614+06	7.853−05	141	263	4.510+02	8.132+05	1.653−05
137	283	3.790+02	2.765+06	8.931−05	141	267	4.414+02	2.500+06	9.736−05
137	284	3.721+02	5.681+06	5.897−05	141	269	4.359+02	1.248+06	4.742−05
138	197	8.353+02	1.187+06	9.308−05	141	278	4.188+02	8.556+05	3.000−05
138	219	5.887+02	3.183+05	2.068−05	141	281	4.085+02	4.129+07	6.888−04
138	225	5.683+02	9.791+05	3.555−05	141	282	4.028+02	5.484+07	8.894−04
138	240	5.083+02	2.901+05	1.405−05	141	285	3.927+02	1.378+06	4.247−05
138	255	4.386+02	1.977+06	4.276−05	142	196	9.907+02	1.610+05	2.369−05
138	256	4.358+02	5.357+06	1.906−04	142	197	9.583+02	1.493+05	3.083−05
138	257	4.330+02	4.185+05	1.176−05	142	215	6.520+02	1.056+05	1.009−05
138	261	4.291+02	1.032+06	2.849−05	142	242	5.460+02	6.477+05	1.448−05
138	262	4.292+02	2.780+06	9.595−05	142	250	4.862+02	4.841+05	2.574−05
138	265	4.222+02	1.337+06	2.680−05	142	254	4.711+02	4.645+06	1.545−04
138	267	4.188+02	8.815+06	2.318−04	142	258	4.620+02	1.139+06	1.822−05
138	269	4.139+02	6.991+06	1.796−04	142	259	4.609+02	3.332+05	1.592−05
138	270	4.136+02	1.442+07	4.624−04	142	263	4.576+02	7.395+05	2.322−05
138	272	4.087+02	3.119+06	9.764−05	142	265	4.515+02	2.123+06	9.732−05
138	275	4.044+02	1.238+07	3.036−04	142	276	4.288+02	1.366+06	5.650−05
138	278	3.985+02	5.980+06	1.423−04	142	280	4.165+02	1.204+07	1.566−04
138	279	3.935+02	3.652+06	1.060−04	142	281	4.139+02	5.047+06	1.296−04
138	286	3.745+02	7.291+06	1.916−04	142	282	4.080+02	1.630+07	4.069−04
139	217	5.995+02	7.753+05	4.177−05	142	283	4.061+02	3.124+05	1.159−05
139	248	4.585+02	3.580+07	1.316−03	142	284	3.982+02	9.518+07	1.131−03
139	253	4.469+02	4.327+06	1.295−04	143	253	4.776+02	7.383+05	3.029−05
139	256	4.400+02	2.087+06	5.049−05	143	257	4.665+02	7.021+05	1.833−05
139	264	4.320+02	3.315+06	9.273−05	143	262	4.621+02	1.592+06	5.099−05
139	272	4.125+02	5.496+06	1.168−04	143	267	4.502+02	1.593+06	3.871−05
139	273	4.129+02	6.466+06	1.928−04	143	270	4.442+02	1.058+06	3.128−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
143	271	4.401+02	1.227+06	4.278−05	145	260	4.791+02	1.331+07	4.582−04
143	272	4.385+02	1.775+06	5.117−05	145	261	4.787+02	4.807+05	2.202−05
143	275	4.336+02	5.015+06	1.131−04	145	263	4.768+02	2.156+07	4.897−04
143	278	4.267+02	1.099+06	2.400−05	145	269	4.599+02	5.918+05	2.502−05
143	286	3.993+02	1.923+08	4.597−03	145	275	4.482+02	2.152+06	8.640−05
144	190	1.228+03	3.674+04	1.038−05	145	276	4.456+02	4.998+06	1.488−04
144	197	1.005+03	5.641+05	6.402−05	145	278	4.409+02	3.078+07	1.196−03
144	212	7.278+02	4.704+06	2.802−04	145	281	4.295+02	7.032+05	1.296−05
144	213	6.867+02	3.901+05	2.068−05	145	282	4.232+02	9.936+05	1.778−05
144	219	6.681+02	9.338+05	7.812−05	145	283	4.211+02	1.487+07	3.954−04
144	220	6.624+02	2.892+05	2.378−05	145	285	4.120+02	4.331+06	1.470−04
144	223	6.517+02	1.897+06	1.208−04	146	192	1.306+03	3.589+04	1.377−05
144	227	6.380+02	2.567+05	1.958−05	146	210	7.723+02	1.191+06	5.323−05
144	231	6.222+02	1.139+06	6.611−05	146	211	7.653+02	1.591+06	1.397−04
144	237	5.828+02	1.238+07	6.305−04	146	212	7.574+02	1.471+05	1.898−05
144	238	5.757+02	4.336+05	1.616−05	146	214	7.051+02	3.239+05	2.415−05
144	240	5.664+02	6.948+06	4.177−04	146	215	6.984+02	1.117+06	1.226−04
144	243	5.578+02	8.442+05	3.938−05	146	224	6.692+02	2.260+05	1.517−05
144	250	4.979+02	1.185+07	3.304−04	146	229	6.528+02	5.568+05	3.558−05
144	252	4.927+02	2.354+07	8.567−04	146	232	6.372+02	1.264+06	3.847−05
144	255	4.812+02	5.037+06	1.311−04	146	233	6.334+02	2.773+05	2.502−05
144	260	4.702+02	2.276+07	5.658−04	146	238	5.941+02	1.354+06	1.074−04
144	262	4.699+02	1.162+06	4.810−05	146	239	5.851+02	7.395+06	3.795−04
144	265	4.615+02	5.962+05	1.428−05	146	242	5.782+02	5.804+06	1.455−04
144	267	4.575+02	1.248+06	3.915−05	146	244	5.708+02	8.432+06	6.178−04
144	270	4.513+02	2.796+06	1.067−04	146	245	5.690+02	2.404+05	1.167−05
144	272	4.455+02	7.479+05	2.781−05	146	249	5.115+02	4.015+06	1.575−04
144	278	4.333+02	2.715+06	7.642−05	146	250	5.116+02	4.682+06	2.755−04
144	279	4.274+02	3.852+07	1.319−03	146	251	5.101+02	1.420+07	2.771−04
144	285	4.055+02	3.006+07	7.407−04	146	258	4.848+02	1.333+07	2.349−04
145	193	1.284+03	4.297+04	1.416−05	146	260	4.824+02	2.682+06	1.404−04
145	211	7.571+02	2.178+06	1.248−04	146	263	4.800+02	2.300+07	7.945−04
145	212	7.494+02	1.617+06	1.362−04	146	265	4.732+02	7.742+05	3.899−05
145	215	6.916+02	2.912+05	2.088−05	146	266	4.693+02	1.228+07	2.027−04
145	218	6.867+02	1.578+06	1.487−04	146	274	4.512+02	4.481+06	1.368−04
145	224	6.630+02	8.529+05	3.747−05	146	276	4.484+02	2.252+07	1.018−03
145	226	6.564+02	6.146+05	3.970−05	146	280	4.349+02	2.007+06	2.845−05
145	231	6.379+02	5.012+05	4.077−05	146	281	4.321+02	7.072+06	1.980−04
145	233	6.277+02	3.552+05	2.099−05	146	282	4.257+02	1.658+06	4.505−05
145	237	5.966+02	4.999+05	3.556−05	146	283	4.236+02	5.082+06	2.051−04
145	238	5.891+02	9.363+06	4.871−04	146	284	4.150+02	1.036+06	1.338−05
145	239	5.802+02	2.260+06	7.604−05	147	191	1.315+03	2.228+04	1.155−05
145	243	5.704+02	7.632+06	4.963−04	147	210	7.747+02	1.360+06	1.223−04
145	244	5.662+02	8.317+05	3.997−05	147	211	7.677+02	2.452+05	4.333−05
145	245	5.644+02	3.265+05	1.040−05	147	214	7.072+02	6.951+05	1.042−04
145	249	5.078+02	1.430+07	3.685−04	147	229	6.545+02	9.516+04	1.222−05
145	250	5.079+02	8.176+06	3.162−04	147	230	6.476+02	4.628+05	2.910−05
145	252	5.025+02	3.802+06	1.919−04	147	232	6.388+02	1.244+06	7.610−05
145	254	4.914+02	1.067+06	2.575−05	147	239	5.865+02	1.505+06	1.552−04
145	259	4.803+02	6.403+05	2.214−05	147	241	5.784+02	2.858+05	1.434−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
147	242	5.796+02	7.845+06	3.951−04	150	224	6.838+02	2.004+06	9.367−05
147	245	5.703+02	7.514+06	7.327−04	150	226	6.768+02	2.770+05	1.903−05
147	249	5.125+02	4.092+06	3.224−04	150	229	6.667+02	2.306+05	1.025−05
147	251	5.112+02	6.497+06	2.545−04	150	233	6.464+02	2.103+05	1.318−05
147	258	4.858+02	2.430+07	8.597−04	150	237	6.134+02	7.140+06	5.370−04
147	263	4.809+02	4.792+06	3.323−04	150	238	6.055+02	1.874+06	1.030−04
147	266	4.702+02	1.404+07	4.654−04	150	239	5.962+02	8.523+05	3.028−05
147	274	4.520+02	1.718+07	1.053−03	150	243	5.857+02	4.379+06	3.003−04
147	280	4.357+02	7.066+06	2.011−04	150	244	5.813+02	4.453+06	2.257−04
147	281	4.329+02	2.917+06	1.639−04	150	245	5.795+02	7.289+05	2.446−05
147	282	4.265+02	1.091+06	5.947−05	150	249	5.200+02	5.280+06	1.427−04
147	284	4.157+02	9.691+05	2.511−05	150	250	5.200+02	1.927+07	7.812−04
148	248	5.145+02	8.876+05	4.109−05	150	252	5.144+02	4.160+06	2.200−04
148	256	4.914+02	4.114+05	1.241−05	150	254	5.028+02	1.636+06	4.132−05
148	264	4.813+02	2.304+06	8.002−05	150	255	5.019+02	3.788+06	1.430−04
148	270	4.634+02	2.807+06	7.531−05	150	257	4.945+02	2.106+05	1.029−05
148	272	4.572+02	4.487+06	1.172−04	150	260	4.899+02	1.447+06	5.206−05
148	273	4.578+02	6.018+06	2.206−04	150	261	4.895+02	1.286+06	6.156−05
148	279	4.382+02	4.342+05	1.042−05	150	269	4.698+02	1.545+06	6.819−05
148	286	4.148+02	3.130+06	6.727−05	150	275	4.576+02	2.402+06	1.005−04
149	197	1.076+03	1.597+06	2.081−04	150	276	4.549+02	5.361+06	1.663−04
149	213	7.195+02	1.450+06	8.441−05	150	278	4.500+02	4.932+06	1.996−04
149	219	6.991+02	1.421+06	1.301−04	150	281	4.381+02	7.950+05	1.525−05
149	220	6.928+02	8.680+05	7.806−05	150	282	4.316+02	4.678+06	8.708−05
149	227	6.662+02	8.166+05	6.792−05	150	283	4.294+02	6.237+05	1.724−05
149	237	6.062+02	8.125+05	4.477−05	150	285	4.200+02	4.461+06	1.573−04
149	240	5.885+02	5.808+06	3.769−04	151	197	1.118+03	9.083+05	1.278−04
149	243	5.792+02	3.408+05	1.714−05	151	212	7.857+02	1.185+06	8.225−05
149	250	5.149+02	8.066+06	2.404−04	151	213	7.380+02	1.833+06	1.123−04
149	252	5.094+02	1.804+07	7.015−04	151	218	7.172+02	2.964+05	2.286−05
149	255	4.971+02	5.573+06	1.548−04	151	219	7.166+02	7.302+06	7.027−04
149	260	4.854+02	4.595+06	1.217−04	151	220	7.100+02	3.751+05	3.544−05
149	261	4.849+02	1.861+06	6.559−05	151	227	6.821+02	6.358+05	5.544−05
149	262	4.850+02	8.650+05	3.812−05	151	231	6.641+02	6.203+05	4.101−05
149	267	4.718+02	2.222+07	7.416−04	151	237	6.194+02	3.054+06	1.756−04
149	269	4.656+02	4.633+06	1.506−04	151	238	6.113+02	5.758+05	2.420−05
149	270	4.653+02	6.863+06	2.784−04	151	240	6.009+02	5.291+06	3.580−04
149	272	4.590+02	3.499+06	1.382−04	151	243	5.912+02	3.192+06	1.673−04
149	278	4.461+02	2.792+06	8.330−05	151	252	5.186+02	1.546+07	6.236−04
149	279	4.399+02	4.876+05	1.768−05	151	255	5.059+02	5.970+06	1.718−04
149	283	4.259+02	8.908+05	1.817−05	151	260	4.937+02	5.258+05	1.441−05
149	285	4.166+02	1.035+06	2.693−05	151	261	4.933+02	2.270+06	8.283−05
150	196	1.142+03	2.350+05	3.063−05	151	267	4.798+02	8.223+06	2.837−04
150	197	1.099+03	2.753+05	4.986−05	151	269	4.733+02	3.502+06	1.176−04
150	211	7.845+02	1.472+06	9.056−05	151	270	4.730+02	2.995+05	1.256−05
150	212	7.761+02	1.372+05	1.239−05	151	275	4.609+02	1.431+06	4.559−05
150	213	7.296+02	6.110+05	4.875−05	151	276	4.582+02	2.274+06	5.367−05
150	215	7.143+02	4.855+05	3.714−05	151	278	4.532+02	3.660+06	1.127−04
150	218	7.091+02	6.667+06	6.701−04	151	279	4.468+02	2.025+07	7.575−04
150	222	6.916+02	1.360+05	1.301−05	151	285	4.228+02	1.379+06	3.696−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
151	286	4.224+02	3.937+05	1.317−05	153	283	4.404+02	9.162+05	2.664−05
152	192	1.419+03	2.474+04	1.120−05	154	191	1.484+03	2.104+04	1.389−05
152	196	1.181+03	1.842+05	3.852−05	154	210	8.302+02	1.424+06	1.472−04
152	210	8.103+02	1.453+06	7.150−05	154	214	7.531+02	2.920+06	4.967−04
152	211	8.027+02	6.077+05	5.869−05	154	224	7.123+02	6.691+04	1.018−05
152	214	7.367+02	6.123+05	4.982−05	154	232	6.761+02	1.530+06	1.049−04
152	215	7.293+02	4.401+06	5.265−04	154	235	6.508+02	1.194+05	1.517−05
152	224	6.976+02	7.308+05	5.331−05	154	239	6.177+02	9.010+06	1.031−03
152	225	6.928+02	2.067+05	2.231−05	154	242	6.101+02	4.547+06	2.537−04
152	229	6.798+02	3.742+05	2.592−05	154	245	5.998+02	3.945+06	4.256−04
152	232	6.628+02	1.542+06	5.077−05	154	249	5.363+02	3.504+06	3.021−04
152	238	6.163+02	9.757+06	8.334−04	154	251	5.348+02	7.781+06	3.336−04
152	239	6.066+02	8.768+05	4.837−05	154	254	5.180+02	3.104+06	2.498−04
152	242	5.993+02	2.900+06	7.807−05	154	258	5.070+02	2.024+06	7.800−05
152	244	5.913+02	3.368+06	2.648−04	154	263	5.018+02	5.755+05	4.345−05
152	245	5.893+02	4.787+06	2.493−04	154	274	4.704+02	6.959+06	4.617−04
152	249	5.279+02	1.168+07	4.880−04	154	280	4.527+02	5.940+05	1.825−05
152	250	5.280+02	5.904+06	3.701−04	154	281	4.497+02	3.017+06	1.829−04
152	251	5.265+02	5.378+06	1.117−04	155	202	1.009+03	1.499+05	2.744−05
152	254	5.102+02	5.680+06	2.216−04	155	217	7.444+02	4.098+06	4.085−04
152	255	5.092+02	2.287+05	1.334−05	155	220	7.328+02	5.301+05	4.268−05
152	259	4.982+02	1.208+06	6.742−05	155	227	7.031+02	5.536+05	4.103−05
152	260	4.970+02	2.968+05	1.648−05	155	240	6.171+02	1.733+07	9.893−04
152	263	4.944+02	1.048+06	3.839−05	155	243	6.069+02	1.337+06	5.906−05
152	265	4.873+02	9.757+05	5.210−05	155	252	5.307+02	8.260+06	2.790−04
152	274	4.639+02	3.767+06	1.215−04	155	253	5.227+02	1.647+06	8.094−05
152	276	4.610+02	5.598+06	2.675−04	155	262	5.042+02	4.286+06	1.634−04
152	281	4.438+02	4.383+05	1.294−05	155	264	5.025+02	4.602+07	2.090−03
152	283	4.348+02	4.990+06	2.121−04	155	270	4.830+02	8.714+05	3.047−05
152	284	4.258+02	3.332+06	4.527−05	155	271	4.782+02	3.522+06	1.449−04
153	196	1.223+03	2.247+06	3.358−04	155	279	4.557+02	2.431+06	7.568−05
153	197	1.174+03	1.105+05	2.282−05	155	285	4.308+02	1.921+06	4.277−05
153	218	7.395+02	2.629+05	2.873−05	156	204	1.048+03	1.485+05	3.055−05
153	225	7.070+02	2.411+05	1.807−05	156	219	7.760+02	4.593+05	5.183−05
153	244	6.016+02	1.678+06	9.105−05	156	220	7.682+02	2.217+06	2.451−04
153	247	5.488+02	7.101+05	2.137−05	156	222	7.556+02	1.984+05	1.699−05
153	250	5.362+02	7.506+05	3.235−05	156	231	7.147+02	2.086+05	1.597−05
153	254	5.178+02	1.560+07	4.180−04	156	237	6.632+02	1.309+06	8.634−05
153	255	5.169+02	1.155+06	4.625−05	156	240	6.420+02	7.974+05	6.159−05
153	257	5.091+02	8.510+05	4.409−05	156	243	6.310+02	1.110+07	6.628−04
153	259	5.055+02	3.953+06	1.515−04	156	244	6.259+02	1.926+06	8.485−05
153	261	5.038+02	3.976+06	2.017−04	156	250	5.554+02	4.544+06	1.576−04
153	263	5.016+02	8.434+05	2.121−05	156	257	5.264+02	4.960+05	2.060−05
153	265	4.942+02	2.193+07	8.031−04	156	260	5.212+02	1.387+06	4.235−05
153	267	4.896+02	3.430+05	1.644−05	156	261	5.207+02	5.181+06	2.106−04
153	269	4.830+02	1.676+06	7.812−05	156	262	5.208+02	3.161+07	1.607−03
153	274	4.703+02	2.105+06	4.653−05	156	270	4.981+02	5.551+05	2.581−05
153	275	4.701+02	1.179+06	5.207−05	156	272	4.910+02	4.264+06	1.926−04
153	278	4.620+02	1.242+06	5.302−05	156	275	4.848+02	5.749+05	2.026−05
153	281	4.495+02	1.651+06	3.335−05	156	278	4.762+02	4.441+05	1.510−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
156	279	4.691+02	4.697+06	1.937−04	159	241	6.457+02	3.084+06	9.639−05
156	283	4.532+02	1.202+06	2.778−05	159	244	6.378+02	2.893+05	2.647−05
156	286	4.424+02	9.163+05	3.360−05	159	245	6.356+02	1.938+06	1.174−04
157	196	1.374+03	7.581+04	1.430−05	159	247	5.788+02	5.457+05	2.741−05
157	197	1.312+03	8.579+05	2.215−04	159	249	5.647+02	8.074+05	3.860−05
157	218	7.922+02	3.853+05	4.833−05	159	251	5.630+02	6.351+06	1.509−04
157	235	6.909+02	3.835+06	1.829−04	159	254	5.445+02	2.134+07	9.484−04
157	237	6.746+02	6.965+05	6.336−05	159	255	5.434+02	9.200+06	6.109−04
157	243	6.413+02	9.682+05	7.958−05	159	258	5.323+02	1.877+06	3.987−05
157	244	6.360+02	1.762+05	1.068−05	159	259	5.309+02	2.375+06	1.505−04
157	246	5.798+02	6.258+05	3.154−05	159	260	5.294+02	8.512+05	5.365−05
157	249	5.632+02	2.122+06	6.728−05	159	263	5.265+02	8.655+05	3.597−05
157	250	5.634+02	3.871+05	1.842−05	159	265	5.184+02	3.566+05	2.155−05
157	252	5.568+02	2.152+06	1.333−04	159	266	5.137+02	9.576+05	1.894−05
157	254	5.431+02	2.740+06	8.079−05	159	274	4.921+02	1.997+06	7.249−05
157	255	5.421+02	3.011+07	1.326−03	159	276	4.888+02	2.101+06	1.129−04
157	259	5.296+02	2.417+05	1.017−05	159	280	4.728+02	5.885+06	9.860−05
157	260	5.282+02	2.686+06	1.123−04	159	284	4.494+02	1.592+07	2.411−04
157	263	5.253+02	1.014+06	2.798−05	160	196	1.432+03	1.715+04	1.054−05
157	265	5.172+02	8.859+05	3.553−05	160	224	7.781+02	3.882+05	7.047−05
157	267	5.122+02	2.755+05	1.445−05	160	235	7.052+02	7.871+05	1.174−04
157	269	5.049+02	2.557+05	1.303−05	160	245	6.458+02	2.172+05	2.716−05
157	274	4.910+02	1.268+06	3.056−05	160	249	5.727+02	2.343+06	2.304−04
157	276	4.877+02	2.589+06	9.233−05	160	251	5.710+02	1.349+06	6.593−05
157	278	4.820+02	1.232+06	5.722−05	160	254	5.519+02	1.048+06	9.577−05
157	281	4.685+02	1.426+07	3.128−04	160	258	5.395+02	8.818+06	3.847−04
157	282	4.610+02	1.817+07	3.859−04	160	266	5.204+02	1.502+07	6.099−04
157	285	4.478+02	1.093+06	4.381−05	160	274	4.982+02	5.099+05	3.795−05
158	197	1.315+03	8.185+04	1.592−05	160	280	4.784+02	7.372+05	2.529−05
158	243	6.419+02	2.568+05	1.586−05	160	281	4.750+02	1.338+07	9.054−04
158	250	5.638+02	3.764+05	1.345−05	160	282	4.673+02	4.324+07	2.831−03
158	256	5.382+02	2.352+06	1.277−04	160	284	4.545+02	1.414+07	4.377−04
158	259	5.300+02	9.683+05	3.059−05	160	287	4.474+02	1.694+06	5.083−05
158	261	5.281+02	3.800+05	1.589−05	161	205	1.089+03	1.244+05	2.949−05
158	262	5.282+02	7.771+05	4.062−05	161	222	7.880+02	2.102+06	2.610−04
158	265	5.177+02	1.157+06	3.485−05	161	223	7.860+02	1.630+05	2.013−05
158	267	5.126+02	2.468+06	9.724−05	161	225	7.719+02	1.297+05	1.159−05
158	269	5.053+02	6.247+06	2.391−04	161	237	6.880+02	1.250+05	1.183−05
158	270	5.049+02	2.005+06	9.576−05	161	238	6.781+02	1.298+06	8.948−05
158	275	4.912+02	1.599+07	5.784−04	161	239	6.664+02	3.705+05	1.645−05
158	278	4.824+02	2.183+06	7.617−05	161	243	6.534+02	1.484+06	1.266−04
158	279	4.751+02	2.682+05	1.135−05	161	244	6.480+02	7.843+06	4.936−04
158	286	4.477+02	1.369+06	5.140−05	161	245	6.456+02	1.972+06	8.216−05
159	196	1.382+03	7.478+05	2.143−04	161	249	5.726+02	5.179+06	1.697−04
159	197	1.320+03	7.308+04	2.864−05	161	250	5.727+02	5.790+05	2.847−05
159	214	8.104+02	1.047+05	1.031−05	161	254	5.518+02	3.534+05	1.076−05
159	215	8.015+02	1.501+05	2.168−05	161	257	5.419+02	2.356+06	1.383−04
159	225	7.576+02	2.174+05	2.807−05	161	259	5.379+02	5.222+06	2.265−04
159	235	6.930+02	7.530+05	5.422−05	161	260	5.364+02	7.208+05	3.109−05
159	238	6.670+02	3.573+05	3.575−05	161	261	5.359+02	1.562+07	8.966−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
161	263	5.334+02	5.327+05	1.515−05	164	282	4.766+02	9.892+05	3.368−05
161	265	5.251+02	6.031+05	2.493−05	164	284	4.632+02	4.385+07	7.053−04
161	267	5.199+02	2.883+06	1.558−04	165	253	5.725+02	1.836+06	1.083−04
161	275	4.979+02	2.280+06	1.130−04	165	262	5.505+02	4.020+05	1.826−05
161	278	4.889+02	2.855+06	1.364−04	165	264	5.483+02	1.039+06	5.619−05
161	282	4.672+02	1.312+06	2.864−05	165	267	5.336+02	6.293+05	2.149−05
162	206	1.108+03	6.501+04	1.794−05	165	270	5.252+02	5.138+06	2.125−04
162	207	1.098+03	7.190+04	1.299−05	165	271	5.195+02	1.060+06	5.149−05
162	214	8.464+02	1.630+05	1.750−05	165	272	5.173+02	5.224+06	2.096−04
162	225	7.889+02	1.404+06	1.965−04	165	278	5.010+02	4.343+05	1.307−05
162	235	7.192+02	1.790+05	1.388−05	165	286	4.636+02	4.617+06	1.488−04
162	238	6.912+02	9.318+04	1.001−05	166	196	1.549+03	9.936+04	3.576−05
162	239	6.791+02	1.799+06	1.244−04	166	212	9.450+02	5.333+04	1.071−05
162	244	6.599+02	1.602+06	1.569−04	166	225	8.051+02	1.731+05	2.523−05
162	245	6.575+02	6.504+06	4.215−04	166	235	7.326+02	1.695+05	1.364−05
162	249	5.819+02	3.153+05	1.601−05	166	238	7.036+02	3.714+05	4.134−05
162	250	5.820+02	2.423+05	1.846−05	166	241	6.799+02	1.807+06	6.261−05
162	251	5.802+02	4.154+06	1.048−04	166	244	6.712+02	1.457+05	1.476−05
162	254	5.605+02	5.918+05	2.787−05	166	245	6.687+02	1.932+06	1.295−04
162	255	5.594+02	9.033+05	6.356−05	166	246	6.089+02	2.865+05	2.389−05
162	258	5.476+02	4.319+06	9.709−05	166	250	5.908+02	1.102+06	8.646−05
162	259	5.461+02	9.512+06	6.379−04	166	254	5.686+02	5.044+06	2.445−04
162	265	5.329+02	1.107+07	7.071−04	166	258	5.554+02	8.110+06	1.875−04
162	266	5.280+02	2.831+06	5.915−05	166	259	5.538+02	4.584+06	3.161−04
162	274	5.052+02	1.440+06	5.508−05	166	260	5.522+02	5.957+05	4.085−05
162	276	5.017+02	1.340+06	7.586−05	166	263	5.491+02	1.041+06	4.706−05
162	281	4.813+02	1.682+06	5.842−05	166	265	5.403+02	3.303+06	2.168−04
162	283	4.708+02	1.730+06	8.627−05	166	266	5.351+02	1.357+07	2.913−04
163	211	9.450+02	5.680+04	1.521−05	166	274	5.117+02	4.109+05	1.613−05
163	235	7.253+02	2.146+05	3.385−05	166	276	5.081+02	4.744+05	2.755−05
163	242	6.752+02	4.872+05	3.330−05	166	281	4.873+02	1.048+07	3.730−04
163	258	5.512+02	2.494+06	1.136−04	166	282	4.792+02	2.016+06	6.940−05
163	266	5.313+02	1.706+06	7.218−05	166	283	4.765+02	5.570+06	2.844−04
163	274	5.082+02	2.709+05	2.098−05	166	284	4.657+02	1.284+07	2.088−04
163	280	4.876+02	2.290+06	8.162−05	166	287	4.582+02	1.727+06	2.718−05
163	281	4.841+02	1.230+07	8.645−04	167	235	7.431+02	3.218+05	1.776−05
163	282	4.761+02	1.144+07	7.771−04	167	247	6.132+02	1.009+06	3.793−05
163	284	4.628+02	1.345+06	4.319−05	167	254	5.749+02	2.932+06	9.685−05
164	196	1.522+03	6.013+04	2.089−05	167	261	5.576+02	3.240+05	2.013−05
164	224	8.041+02	1.549+05	1.501−05	167	265	5.459+02	2.169+06	9.690−05
164	235	7.265+02	3.154+05	2.496−05	167	267	5.403+02	5.036+06	2.939−04
164	247	6.019+02	4.414+05	2.398−05	167	269	5.322+02	1.907+05	1.079−05
164	255	5.638+02	1.864+05	1.332−05	167	274	5.168+02	9.660+05	2.579−05
164	258	5.518+02	8.505+06	1.941−04	167	278	5.069+02	9.068+05	4.657−05
164	260	5.487+02	1.163+06	7.873−05	167	281	4.919+02	2.020+06	4.886−05
164	263	5.456+02	3.043+05	1.358−05	167	282	4.836+02	5.572+06	1.303−04
164	265	5.369+02	4.884+06	3.166−04	167	285	4.692+02	1.566+06	6.888−05
164	266	5.319+02	9.373+06	1.988−04	168	211	9.797+02	1.509+05	4.342−05
164	276	5.052+02	7.345+05	4.215−05	168	235	7.456+02	8.876+04	1.479−05
164	280	4.881+02	2.886+06	5.153−05	168	239	7.026+02	2.249+05	3.328−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
168	241	6.911+02	1.378+06	9.868−05	170	278	5.222+02	7.043+06	3.840−04
168	242	6.927+02	1.124+06	8.084−05	170	281	5.064+02	1.202+06	3.080−05
168	247	6.150+02	1.716+05	1.946−05	170	282	4.976+02	1.136+07	2.813−04
168	249	5.991+02	2.638+05	2.839−05	170	283	4.948+02	5.481+06	2.011−04
168	251	5.973+02	2.811+05	1.503−05	170	285	4.823+02	1.615+07	7.510−04
168	254	5.764+02	1.692+05	1.686−05	171	197	1.687+03	6.082+04	1.947−05
168	258	5.628+02	6.793+06	3.226−04	171	219	9.140+02	9.303+04	1.456−05
168	266	5.420+02	8.495+06	3.742−04	171	243	7.194+02	6.256+05	4.853−05
168	280	4.967+02	2.042+07	7.552−04	171	246	6.429+02	2.386+06	1.109−04
168	281	4.930+02	1.907+07	1.390−03	171	250	6.227+02	2.948+05	1.286−05
168	282	4.847+02	6.184+06	4.356−04	171	255	5.968+02	1.172+06	4.694−05
168	284	4.709+02	5.801+07	1.929−03	171	256	5.916+02	2.167+05	1.421−05
169	212	1.010+03	1.056+05	2.424−05	171	262	5.795+02	6.681+05	4.204−05
169	213	9.328+02	7.889+04	1.544−05	171	267	5.608+02	7.466+05	3.521−05
169	226	8.483+02	7.911+04	1.280−05	171	270	5.516+02	1.560+07	8.897−04
169	238	7.392+02	3.575+05	4.393−05	171	272	5.428+02	1.278+07	7.060−04
169	239	7.253+02	1.535+05	1.210−05	171	279	5.163+02	9.088+06	4.539−04
169	241	7.131+02	3.125+05	1.191−05	171	283	4.971+02	3.860+05	1.073−05
169	242	7.148+02	3.049+05	1.168−05	172	197	1.753+03	4.458+04	2.054−05
169	244	7.035+02	1.748+05	1.945−05	172	212	1.054+03	2.326+05	3.871−05
169	247	6.323+02	8.208+05	4.920−05	172	231	8.458+02	3.545+05	5.070−05
169	249	6.155+02	2.188+05	1.243−05	172	237	7.746+02	7.468+05	8.957−05
169	250	6.157+02	5.686+05	4.847−05	172	238	7.621+02	2.546+05	2.217−05
169	255	5.903+02	9.775+05	7.661−05	172	243	7.310+02	4.683+05	5.003−05
169	259	5.756+02	3.055+06	2.276−04	172	246	6.522+02	2.250+05	1.435−05
169	260	5.739+02	4.454+06	3.299−04	172	260	5.876+02	3.707+06	1.919−04
169	265	5.610+02	2.369+07	1.677−03	172	263	5.840+02	1.405+06	4.790−05
169	276	5.265+02	3.138+05	1.956−05	172	267	5.679+02	1.347+06	8.681−05
169	280	5.079+02	7.031+06	1.360−04	172	269	5.589+02	3.534+06	2.207−04
169	281	5.041+02	7.018+05	2.674−05	172	275	5.417+02	4.929+06	2.891−04
169	282	4.954+02	1.282+07	4.718−04	172	278	5.311+02	1.036+06	5.839−05
169	283	4.926+02	1.135+07	6.193−04	172	281	5.147+02	4.490+06	1.189−04
169	284	4.810+02	1.835+07	3.182−04	172	282	5.056+02	8.365+05	2.137−05
170	197	1.660+03	1.317+05	5.441−05	172	283	5.027+02	9.023+06	3.418−04
170	212	1.019+03	1.300+05	2.025−05	172	285	4.898+02	3.498+07	1.678−03
170	224	8.659+02	1.892+05	1.418−05	173	211	1.079+03	8.146+04	2.842−05
170	231	8.236+02	2.111+05	2.863−05	173	224	8.970+02	1.119+05	2.701−05
170	237	7.560+02	4.503+05	5.145−05	173	229	8.678+02	9.578+04	2.163−05
170	238	7.440+02	2.172+05	1.802−05	173	232	8.404+02	2.190+05	2.319−05
170	243	7.144+02	8.755+05	8.932−05	173	239	7.520+02	4.780+05	8.106−05
170	244	7.079+02	6.856+05	5.150−05	173	241	7.389+02	8.360+05	6.842−05
170	246	6.389+02	7.612+05	4.659−05	173	242	7.408+02	9.532+05	7.842−05
170	255	5.934+02	3.031+05	1.601−05	173	245	7.256+02	3.301+05	5.212−05
170	260	5.768+02	8.818+05	4.398−05	173	251	6.326+02	9.731+05	5.839−05
170	261	5.762+02	2.136+05	1.418−05	173	254	6.092+02	9.826+04	1.094−05
170	263	5.734+02	1.248+06	4.101−05	173	258	5.941+02	2.527+06	1.337−04
170	267	5.578+02	5.839+06	3.632−04	173	263	5.869+02	3.271+06	3.378−04
170	269	5.492+02	8.827+06	5.321−04	173	280	5.209+02	1.709+07	6.953−04
170	275	5.325+02	7.854+06	4.452−04	173	281	5.169+02	2.783+06	2.229−04
170	276	5.289+02	2.696+05	1.131−05	173	282	5.078+02	1.079+07	8.343−04

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
173	284	4.926+02	1.929+07	7.017−04	176	280	5.449+02	1.050+06	2.336−05
174	212	1.062+03	8.776+04	2.228−05	176	281	5.405+02	1.316+06	5.765−05
174	213	9.771+02	4.769+04	1.024−05	176	282	5.305+02	1.774+06	7.483−05
174	232	8.401+02	2.284+05	1.208−05	176	283	5.273+02	3.016+06	1.886−04
174	238	7.667+02	3.829+05	5.061−05	177	255	6.491+02	3.261+05	1.545−05
174	239	7.518+02	4.582+05	3.883−05	177	262	6.286+02	1.929+05	1.428−05
174	244	7.284+02	6.660+05	7.946−05	177	267	6.067+02	1.906+05	1.052−05
174	245	7.254+02	2.914+05	2.299−05	177	270	5.959+02	3.703+06	2.464−04
174	247	6.523+02	5.263+05	3.358−05	177	272	5.857+02	4.247+06	2.730−04
174	249	6.345+02	1.825+05	1.102−05	177	275	5.769+02	4.116+05	2.054−05
174	251	6.325+02	5.246+05	1.573−05	177	285	5.184+02	1.133+06	4.563−05
174	254	6.091+02	6.678+05	3.714−05	179	197	2.685+03	3.902+04	4.219−05
174	255	6.078+02	1.665+05	1.383−05	179	235	9.453+02	2.951+05	2.636−05
174	258	5.940+02	1.947+06	5.148−05	179	246	7.489+02	9.112+05	7.662−05
174	260	5.903+02	3.441+06	2.697−04	179	252	7.110+02	1.266+05	1.280−05
174	265	5.767+02	5.822+06	4.355−04	179	254	6.889+02	2.895+05	1.373−05
174	274	5.443+02	2.510+05	1.115−05	179	260	6.650+02	3.874+05	2.568−05
174	276	5.403+02	3.037+05	1.993−05	179	261	6.642+02	7.711+05	6.800−05
174	280	5.208+02	1.399+06	2.844−05	179	267	6.399+02	4.517+06	3.697−04
174	281	5.168+02	7.725+06	3.093−04	179	269	6.285+02	4.095+06	3.233−04
174	282	5.076+02	2.767+06	1.069−04	179	274	6.072+02	3.425+05	1.262−05
174	283	5.047+02	1.219+07	6.982−04	179	275	6.068+02	2.598+06	1.912−04
174	284	4.925+02	1.113+07	2.024−04	179	281	5.731+02	1.185+06	3.890−05
175	244	7.404+02	1.704+05	1.400−05	179	282	5.619+02	6.016+05	1.898−05
175	247	6.620+02	7.156+05	3.134−05	180	196	2.973+03	2.533+04	3.357−05
175	252	6.352+02	2.520+05	2.032−05	180	235	9.470+02	1.282+05	1.723−05
175	255	6.161+02	4.486+05	2.553−05	180	241	8.608+02	8.777+05	4.875−05
175	260	5.982+02	2.155+05	1.156−05	180	247	7.458+02	4.275+05	3.565−05
175	261	5.976+02	1.791+06	1.278−04	180	258	6.704+02	3.476+05	1.171−05
175	265	5.842+02	3.078+06	1.575−04	180	259	6.681+02	9.269+05	9.305−05
175	267	5.778+02	2.119+07	1.414−03	180	263	6.613+02	2.110+05	1.383−05
175	269	5.685+02	7.403+05	4.783−05	180	265	6.485+02	4.430+06	4.190−04
175	275	5.507+02	4.111+06	2.492−04	180	274	6.079+02	6.128+05	3.395−05
175	276	5.468+02	4.934+05	2.212−05	180	280	5.787+02	1.345+06	3.377−05
175	278	5.397+02	5.268+05	3.067−05	180	281	5.737+02	9.363+05	4.620−05
175	281	5.228+02	1.624+06	4.437−05	180	284	5.440+02	5.455+06	1.210−04
175	282	5.135+02	7.074+05	1.864−05	186	257	7.377+02	1.923+05	1.569−05
175	285	4.972+02	1.106+06	5.462−05	186	262	7.267+02	2.851+05	2.822−05
176	213	1.066+03	1.890+05	4.826−05	186	267	6.976+02	1.690+05	1.233−05
176	224	9.706+02	4.254+05	6.008−05	186	269	6.841+02	7.709+05	5.409−05
176	232	9.047+02	9.291+05	5.699−05	186	270	6.834+02	9.480+05	8.296−05
176	233	8.970+02	1.830+05	3.310−05	186	286	5.826+02	3.853+07	2.451−03
176	234	8.884+02	1.581+05	1.870−05	187	264	7.250+02	1.339+05	1.267−05
176	249	6.707+02	4.574+05	3.084−05	187	270	6.852+02	4.797+05	3.376−05
176	250	6.708+02	6.034+05	6.106−05	187	271	6.755+02	2.600+05	2.135−05
176	258	6.255+02	4.291+06	1.258−04	187	286	5.839+02	3.761+06	1.922−04
176	259	6.235+02	1.853+05	1.620−05	194	247	9.273+02	9.817+05	8.436−05
176	260	6.215+02	7.263+06	6.309−04	194	259	8.102+02	1.757+05	1.729−05
176	263	6.175+02	1.036+07	5.921−04	194	261	8.056+02	3.326+05	4.315−05
176	266	6.000+02	9.833+06	2.653−04	194	265	7.815+02	1.814+05	1.662−05

Table 3. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (E1) transitions in Co XI with $f \geq 10^{-5}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}	i	j	λ_{ij}	A_{ji}^{E1}	f_{ij}^{E1}
194	267	7.701+02	3.364+05	3.989−05	203	235	1.912+03	4.250+04	2.330−05
194	269	7.537+02	5.529+05	6.279−05	203	246	1.249+03	2.315+05	8.128−05
194	275	7.228+02	2.644+06	2.761−04	203	247	1.238+03	5.546+04	1.274−05
194	278	7.039+02	4.368+05	4.326−05	203	250	1.176+03	3.947+04	1.227−05
195	246	9.505+02	8.243+05	8.373−05	203	255	1.087+03	5.619+05	1.492−04
195	262	8.182+02	3.415+05	4.284−05	203	276	8.882+02	5.691+04	1.010−05
195	269	7.646+02	3.001+05	2.630−05	203	281	8.264+02	2.859+05	2.927−05
195	270	7.636+02	8.776+05	9.590−05	203	282	8.033+02	2.687+05	2.600−05
195	272	7.469+02	1.271+06	1.329−04	203	283	7.959+02	2.940+05	4.188−05
195	275	7.328+02	2.418+05	1.947−05	203	287	7.461+02	9.159+05	3.822−05
195	286	6.400+02	2.905+06	2.229−04	208	287	8.208+02	8.529+05	8.616−05
196	208	3.139+03	2.940+04	2.171−05	209	287	8.651+02	2.152+06	1.207−04
197	209	2.883+03	3.276+04	2.722−05	213	268	1.350+03	1.182+05	2.153−05
198	246	1.141+03	5.517+04	1.615−05	216	267	1.432+03	4.917+04	2.017−05
198	247	1.131+03	1.836+05	3.524−05	221	265	1.550+03	2.787+04	1.506−05
198	265	9.218+02	1.737+05	3.319−05	224	268	1.541+03	3.566+06	1.269−03
198	284	7.240+02	7.496+05	2.945−05	224	277	1.331+03	1.545+06	2.050−04
200	246	1.191+03	1.592+05	3.387−05	232	277	1.478+03	7.805+04	2.558−05
200	267	9.372+02	9.330+04	1.638−05	235	268	1.937+03	4.010+06	2.256−03
200	269	9.130+02	1.266+05	2.110−05	235	277	1.616+03	2.046+06	4.007−04
200	275	8.680+02	1.442+05	2.172−05	241	268	2.437+03	4.940+05	8.794−04
200	285	7.420+02	1.190+05	1.310−05	241	277	1.950+03	3.726+06	2.123−03
201	241	1.517+03	9.662+04	3.335−05	242	268	2.417+03	2.032+04	3.558−05
201	247	1.193+03	3.714+05	1.585−04	242	277	1.937+03	1.499+05	8.429−05
201	254	1.056+03	6.200+05	2.073−04	246	268	4.189+03	1.032+05	1.810−04
201	274	8.754+02	1.000+05	2.298−05	247	268	4.324+03	4.019+03	1.127−05
201	281	8.062+02	6.698+04	1.305−05	247	277	2.996+03	5.007+05	3.369−04
201	282	7.842+02	1.580+05	2.913−05	268	287	3.321+03	3.430+04	2.836−05
201	284	7.487+02	6.651+05	5.590−05	277	287	5.036+03	2.005+04	7.623−05
201	287	7.297+02	2.474+05	1.975−05					

Table 4. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (E2) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}	i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}
1	36	1.315+02	8.328+03	4.316−08	1	135	9.657+01	9.555+04	2.672−07
1	37	1.308+02	5.474+03	2.107−08	1	137	9.583+01	1.212+06	1.669−06
1	39	1.261+02	6.000+04	2.862−07	1	138	9.563+01	7.588+04	2.081−07
1	40	1.259+02	3.542+04	4.209−08	1	141	9.453+01	9.530+05	1.915−06
1	41	1.258+02	1.915+04	6.815−08	1	142	9.425+01	3.136+05	4.175−07
1	43	1.243+02	2.574+06	1.192−05	1	144	9.382+01	4.729+05	1.248−06
1	44	1.236+02	2.488+06	8.547−06	1	145	9.347+01	1.872+04	3.679−08
1	45	1.228+02	1.998+06	4.519−06	1	146	9.335+01	1.016+04	1.327−08
1	46	1.221+02	2.327+04	7.797−08	1	149	9.324+01	1.900+06	4.952−06
1	47	1.207+02	3.406+06	3.720−06	1	150	9.307+01	2.303+05	4.485−07
1	48	1.193+02	9.177+05	1.959−06	1	151	9.294+01	9.268+05	2.400−06
1	55	1.162+02	3.746+04	1.137−07	1	152	9.282+01	5.740+04	7.415−08
1	56	1.156+02	1.540+05	6.163−07	1	153	9.257+01	4.736+05	9.127−07
1	59	1.141+02	3.577+03	1.396−08	1	156	9.202+01	8.854+04	2.248−07
1	60	1.121+02	6.951+05	1.309−06	1	157	9.181+01	3.241+05	6.143−07
1	61	1.118+02	8.251+05	2.320−06	1	158	9.180+01	2.377+05	6.005−07
1	63	1.110+02	1.747+04	6.449−08	1	159	9.177+01	3.483+05	4.398−07
1	68	1.103+02	6.348+03	1.738−08	1	160	9.156+01	7.627+04	4.793−08
1	69	1.102+02	6.903+03	1.257−08	1	161	9.157+01	1.088+05	2.052−07
1	70	1.101+02	5.689+03	2.068−08	1	162	9.133+01	1.110+04	1.388−08
1	75	1.091+02	4.038+03	1.442−08	1	164	9.122+01	1.925+05	2.401−07
1	77	1.072+02	8.581+04	2.958−07	1	166	9.112+01	4.044+04	5.034−08
1	79	1.068+02	1.429+05	4.886−07	1	167	9.096+01	1.341+04	2.495−08
1	81	1.063+02	1.410+05	2.389−07	1	169	9.056+01	2.400+05	2.951−07
1	82	1.063+02	3.477+04	8.838−08	1	170	9.048+01	1.777+06	3.271−06
1	84	1.061+02	2.014+06	1.699−06	1	171	9.040+01	7.632+05	1.870−06
1	85	1.060+02	8.797+05	1.481−06	1	172	9.022+01	5.610+05	1.027−06
1	96	1.028+02	3.948+03	1.250−08	1	174	9.016+01	1.864+05	2.272−07
1	99	1.019+02	2.586+04	4.025−08	1	177	8.932+01	7.152+04	1.711−07
1	100	1.017+02	1.756+04	1.361−08	1	179	8.864+01	2.625+05	4.639−07
1	102	1.012+02	3.025+04	4.640−08	1	180	8.862+01	5.827+05	6.862−07
1	103	1.011+02	1.842+04	1.410−08	1	186	8.764+01	1.422+05	3.274−07
1	104	1.009+02	6.686+04	1.532−07	1	194	8.661+01	4.498+04	7.588−08
1	109	1.004+02	2.922+04	8.828−08	1	195	8.647+01	1.037+05	2.325−07
1	110	1.003+02	1.034+05	2.339−07	1	198	8.518+01	9.791+05	1.065−06
1	111	1.003+02	2.147+05	1.618−07	1	200	8.491+01	1.498+06	2.430−06
1	112	1.002+02	1.051+04	1.581−08	1	201	8.485+01	2.270+04	1.225−08
1	113	9.987+01	7.661+04	2.291−07	1	203	8.463+01	1.977+05	2.122−07
1	114	9.986+01	6.632+03	1.487−08	1	209	8.333+01	8.111+04	8.443−08
1	116	9.961+01	3.481+04	1.036−07	1	216	8.233+01	1.992+06	3.036−06
1	117	9.917+01	6.245+04	1.841−07	1	221	8.210+01	8.277+05	8.364−07
1	118	9.878+01	4.742+04	3.469−08	1	228	8.171+01	4.439+06	8.887−06
1	121	9.843+01	1.128+04	2.458−08	1	236	8.085+01	4.146+05	6.095−07
1	124	9.758+01	1.846+04	2.636−08	1	268	7.779+01	3.601+05	3.267−07
1	125	9.750+01	9.283+03	1.985−08	1	277	7.717+01	1.548+05	6.910−08
1	126	9.741+01	6.755+04	4.804−08	2	37	1.342+02	1.480+03	1.199−08
1	130	9.689+01	1.661+04	4.675−08	2	41	1.289+02	1.380+04	1.032−07
1	132	9.676+01	1.613+04	3.396−08	2	42	1.289+02	1.406+04	7.002−08
1	133	9.656+01	1.554+06	1.086−06	2	44	1.266+02	6.125+04	4.416−07
1	134	9.657+01	5.430+03	1.139−08	2	45	1.258+02	3.586+05	1.702−06

Table 4. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (E2) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}	i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}
2	46	1.250+02	2.123+06	1.492−05	2	200	8.632+01	4.744+05	1.590−06
2	48	1.221+02	2.168+06	9.694−06	2	203	8.603+01	1.420+05	3.151−07
2	55	1.188+02	3.273+05	2.079−06	2	209	8.469+01	3.719+04	7.997−08
2	60	1.146+02	6.848+05	2.694−06	2	216	8.366+01	2.544+04	8.008−08
2	61	1.143+02	3.617+05	2.124−06	2	221	8.342+01	9.355+05	1.952−06
2	66	1.130+02	3.203+03	1.227−08	2	236	8.213+01	4.251+06	1.289−05
2	69	1.126+02	4.083+03	1.552−08	2	268	7.897+01	2.017+04	3.772−08
2	73	1.119+02	3.655+03	2.060−08	3	25	4.043+02	2.342+02	1.148−08
2	81	1.085+02	1.892+05	6.683−07	3	26	3.954+02	3.570+02	2.510−08
2	82	1.085+02	1.527+05	8.088−07	3	31	2.995+02	5.924+02	1.594−08
2	85	1.082+02	9.888+05	3.469−06	3	196	1.177+02	1.409+06	5.852−06
2	88	1.074+02	3.532+04	1.832−07	3	197	1.172+02	1.446+06	8.935−06
2	89	1.069+02	4.049+03	2.079−08	3	212	1.122+02	7.016+03	3.975−08
2	95	1.049+02	4.330+03	2.143−08	3	213	1.112+02	8.644+03	4.808−08
2	99	1.039+02	5.436+04	1.761−07	3	214	1.110+02	8.945+03	3.306−08
2	102	1.032+02	2.907+04	9.278−08	3	215	1.108+02	3.567+03	1.971−08
2	106	1.026+02	9.066+03	2.858−08	3	224	1.101+02	1.047+04	3.804−08
2	107	1.025+02	4.170+04	1.314−07	3	235	1.085+02	1.074+04	3.790−08
2	108	1.024+02	6.002+04	2.831−07	3	238	1.078+02	2.130+03	1.114−08
2	110	1.023+02	1.158+05	5.448−07	3	245	1.070+02	2.930+03	1.006−08
2	112	1.022+02	3.695+03	1.156−08	3	246	1.053+02	2.700+05	1.347−06
2	114	1.018+02	8.630+03	4.024−08	3	247	1.052+02	2.715+05	9.018−07
2	119	1.005+02	1.442+04	4.370−08	3	249	1.048+02	1.007+04	3.313−08
2	122	9.975+01	4.388+04	1.964−07	3	250	1.048+02	2.424+04	1.197−07
2	124	9.945+01	5.902+03	1.750−08	3	254	1.041+02	2.474+05	8.033−07
2	125	9.937+01	8.159+04	3.624−07	3	255	1.040+02	2.514+05	1.223−06
2	132	9.860+01	1.062+04	4.644−08	3	265	1.031+02	7.082+03	3.384−08
2	137	9.764+01	5.386+05	1.540−06	3	282	1.006+02	1.370+04	4.158−08
2	141	9.628+01	3.430+04	1.430−07	3	283	1.005+02	7.696+03	3.497−08
2	142	9.599+01	3.215+05	8.883−07	4	204	1.315+02	4.117+03	1.778−08
2	145	9.519+01	3.909+04	1.593−07	4	210	1.283+02	1.080+06	8.890−07
2	146	9.506+01	4.038+03	1.094−08	4	211	1.281+02	2.302+04	3.777−08
2	150	9.477+01	1.310+04	5.291−08	4	212	1.279+02	6.320+05	1.550−06
2	152	9.451+01	6.507+04	1.743−07	4	213	1.266+02	8.913+05	2.141−06
2	153	9.425+01	1.490+06	5.953−06	4	214	1.263+02	1.865+05	2.974−07
2	157	9.346+01	8.555+04	3.361−07	4	215	1.261+02	6.828+05	1.628−06
2	159	9.342+01	4.963+05	1.299−06	4	218	1.259+02	6.570+05	2.083−06
2	161	9.321+01	2.738+05	1.070−06	4	219	1.259+02	1.318+06	5.225−06
2	162	9.297+01	4.604+04	1.193−07	4	220	1.257+02	5.005+05	1.977−06
2	164	9.285+01	4.074+05	1.053−06	4	222	1.254+02	4.377+05	1.376−06
2	166	9.275+01	2.356+04	6.077−08	4	223	1.253+02	8.195+04	2.573−07
2	167	9.258+01	5.726+05	2.208−06	4	224	1.251+02	3.375+04	5.281−08
2	169	9.216+01	3.442+05	8.766−07	4	225	1.250+02	5.700+04	1.335−07
2	170	9.209+01	4.869+04	1.857−07	4	230	1.243+02	5.302+04	4.093−08
2	174	9.175+01	9.383+04	2.368−07	4	232	1.240+02	1.171+06	8.993−07
2	175	9.157+01	1.095+06	4.128−06	4	234	1.237+02	8.512+03	1.301−08
2	179	9.018+01	6.366+05	2.328−06	4	237	1.226+02	6.227+05	1.869−06
2	180	9.016+01	7.498+05	1.828−06	4	238	1.222+02	3.400+04	7.615−08
2	194	8.808+01	2.200+04	7.675−08	4	239	1.218+02	5.929+05	8.797−07
2	198	8.660+01	7.846+05	1.764−06	4	240	1.218+02	1.278+04	4.737−08

Table 4. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (E2) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}	i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}
4	241	1.215+02	2.570+04	1.896−08	5	264	1.166+02	3.714+04	1.135−07
4	242	1.215+02	5.222+05	3.855−07	5	271	1.152+02	4.229+04	1.263−07
4	243	1.214+02	4.033+03	1.188−08	5	272	1.151+02	8.225+03	2.042−08
4	244	1.212+02	4.813+05	1.060−06	5	275	1.148+02	7.152+03	1.412−08
4	245	1.211+02	5.621+05	8.243−07	5	276	1.146+02	1.276+04	1.884−08
4	246	1.190+02	5.538+03	1.176−08	5	278	1.143+02	8.516+03	1.667−08
4	249	1.183+02	1.698+05	2.375−07	5	279	1.139+02	5.494+03	1.335−08
4	250	1.183+02	6.763+04	1.419−07	5	281	1.135+02	2.129+05	2.056−07
4	251	1.182+02	4.936+04	3.448−08	5	282	1.131+02	1.170+05	1.121−07
4	252	1.180+02	1.384+05	3.854−07	5	283	1.129+02	4.135+05	5.927−07
4	260	1.167+02	3.002+04	6.127−08	5	285	1.122+02	6.196+05	1.170−06
4	262	1.167+02	2.230+04	7.582−08	6	196	1.353+02	6.444+03	1.769−08
4	267	1.159+02	7.995+03	2.146−08	6	205	1.314+02	4.275+03	2.213−08
4	270	1.155+02	1.070+04	3.564−08	6	207	1.311+02	5.669+03	1.460−08
4	272	1.151+02	1.858+04	6.148−08	6	210	1.286+02	3.887+05	4.817−07
4	278	1.143+02	4.823+04	1.259−07	6	211	1.284+02	3.582+05	8.850−07
4	280	1.137+02	2.699+05	1.743−07	6	212	1.281+02	1.535+05	5.670−07
4	281	1.135+02	2.597+05	3.343−07	6	213	1.268+02	4.553+05	1.647−06
4	282	1.130+02	4.571+05	5.837−07	6	214	1.266+02	6.766+05	1.625−06
4	283	1.129+02	1.669+05	3.188−07	6	215	1.263+02	2.785+05	9.997−07
4	285	1.122+02	1.189+05	2.993−07	6	218	1.262+02	6.750+05	3.223−06
5	202	1.319+02	2.644+03	1.035−08	6	222	1.256+02	9.957+05	4.711−06
5	211	1.282+02	7.379+05	9.084−07	6	223	1.256+02	7.529+04	3.560−07
5	212	1.279+02	8.613+05	1.585−06	6	224	1.254+02	4.896+05	1.153−06
5	213	1.266+02	1.240+06	2.235−06	6	225	1.252+02	5.041+05	1.777−06
5	214	1.263+02	1.293+04	1.547−08	6	226	1.251+02	1.103+04	3.884−08
5	215	1.261+02	9.623+04	1.721−07	6	230	1.245+02	3.155+04	3.666−08
5	217	1.261+02	1.725+06	6.167−06	6	232	1.242+02	5.364+05	6.201−07
5	218	1.260+02	4.626+05	1.101−06	6	233	1.240+02	4.729+03	1.636−08
5	219	1.259+02	7.322+05	2.177−06	6	235	1.233+02	7.712+04	1.758−07
5	220	1.258+02	1.136+06	3.366−06	6	237	1.228+02	1.283+05	5.799−07
5	222	1.254+02	5.404+04	1.274−07	6	238	1.224+02	7.365+05	2.484−06
5	224	1.252+02	6.637+05	7.792−07	6	239	1.221+02	6.925+04	1.547−07
5	227	1.248+02	1.400+04	4.090−08	6	241	1.217+02	8.359+04	9.282−08
5	231	1.242+02	8.347+04	1.931−07	6	242	1.218+02	1.275+06	1.417−06
5	233	1.238+02	3.968+04	6.841−08	6	243	1.216+02	1.181+04	5.237−08
5	235	1.231+02	1.785+05	2.027−07	6	244	1.214+02	3.402+04	1.128−07
5	237	1.226+02	7.128+05	1.605−06	6	245	1.213+02	2.823+05	6.232−07
5	238	1.222+02	4.330+05	7.277−07	6	250	1.185+02	1.096+05	3.463−07
5	239	1.219+02	1.128+05	1.256−07	6	251	1.184+02	1.769+05	1.860−07
5	240	1.218+02	6.594+04	1.834−07	6	252	1.182+02	1.676+04	7.022−08
5	243	1.214+02	7.037+05	1.555−06	6	257	1.171+02	4.453+03	1.832−08
5	244	1.212+02	3.807+05	6.292−07	6	258	1.170+02	4.314+04	4.428−08
5	245	1.212+02	5.841+04	6.427−08	6	259	1.169+02	3.997+03	1.229−08
5	246	1.190+02	2.154+04	3.431−08	6	260	1.169+02	2.630+04	8.081−08
5	250	1.183+02	9.026+04	1.421−07	6	261	1.168+02	1.719+04	7.038−08
5	252	1.180+02	3.229+05	6.744−07	6	263	1.167+02	7.640+04	1.561−07
5	253	1.176+02	3.420+03	1.064−08	6	267	1.161+02	5.507+03	2.225−08
5	255	1.174+02	6.878+03	1.065−08	6	269	1.157+02	1.109+04	4.451−08
5	263	1.166+02	6.426+04	6.543−08	6	274	1.149+02	3.354+04	6.644−08

Table 4. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (E2) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}	i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}
6	275	1.149+02	1.054+04	4.177−08	8	255	1.221+02	3.200+04	4.294−08
6	276	1.148+02	5.789+04	1.715−07	8	256	1.219+02	1.184+04	2.639−08
6	278	1.144+02	8.153+03	3.202−08	8	257	1.217+02	7.153+03	1.271−08
6	280	1.139+02	8.160+05	7.930−07	8	260	1.214+02	2.212+05	2.934−07
6	281	1.137+02	8.725+04	1.690−07	8	261	1.214+02	6.101+04	1.078−07
6	282	1.132+02	1.022+05	1.965−07	8	262	1.214+02	4.656+05	1.029−06
6	283	1.131+02	1.938+05	5.571−07	8	264	1.213+02	2.088+06	5.525−06
6	284	1.125+02	2.485+04	2.356−08	8	269	1.202+02	7.376+03	1.277−08
7	196	1.357+02	2.859+03	1.578−08	8	270	1.201+02	9.204+04	1.991−07
7	206	1.315+02	3.890+03	3.027−08	8	271	1.198+02	5.629+04	1.454−07
7	207	1.314+02	2.675+03	1.385−08	8	273	1.197+02	1.680+05	5.055−07
7	211	1.287+02	2.799+05	1.390−06	8	279	1.184+02	7.558+04	1.587−07
7	212	1.285+02	1.149+04	8.532−08	8	285	1.166+02	1.510+05	2.462−07
7	213	1.271+02	8.737+04	6.351−07	8	286	1.166+02	1.461+04	2.977−08
7	214	1.269+02	3.970+05	1.916−06	9	196	1.419+02	8.864+04	5.354−07
7	215	1.267+02	4.292+05	3.097−06	9	197	1.412+02	3.273+04	2.937−07
7	224	1.257+02	5.570+05	2.638−06	9	211	1.343+02	2.911+03	1.575−08
7	225	1.255+02	1.087+06	7.702−06	9	212	1.341+02	1.972+03	1.595−08
7	235	1.236+02	1.063+05	4.870−07	9	213	1.326+02	1.109+04	8.769−08
7	238	1.228+02	3.030+05	2.054−06	9	214	1.323+02	9.627+03	5.055−08
7	239	1.224+02	8.430+05	3.785−06	9	215	1.321+02	2.199+03	1.726−08
7	244	1.217+02	7.244+03	4.828−08	9	224	1.310+02	4.180+04	2.152−07
7	249	1.188+02	7.544+04	3.192−07	9	225	1.309+02	1.899+04	1.463−07
7	250	1.188+02	2.480+04	1.574−07	9	235	1.288+02	4.540+05	2.258−06
7	254	1.179+02	2.572+04	1.072−07	9	238	1.279+02	7.541+03	5.544−08
7	255	1.178+02	9.883+03	6.170−08	9	239	1.274+02	1.664+04	8.103−08
7	259	1.172+02	2.328+04	1.438−07	9	245	1.267+02	2.933+03	1.411−08
7	263	1.170+02	7.620+04	3.128−07	9	246	1.243+02	1.395+05	9.701−07
7	265	1.166+02	7.784+03	4.760−08	9	247	1.242+02	1.686+05	7.802−07
7	274	1.152+02	4.641+04	1.847−07	9	249	1.236+02	1.960+04	8.974−08
7	276	1.150+02	2.549+04	1.517−07	9	250	1.236+02	3.169+04	2.176−07
7	281	1.139+02	4.307+05	1.676−06	9	254	1.226+02	1.158+06	5.218−06
7	282	1.135+02	1.546+04	5.969−08	9	255	1.225+02	5.866+05	3.960−06
7	283	1.133+02	1.441+04	8.325−08	9	259	1.219+02	7.980+04	5.330−07
8	213	1.322+02	2.115+06	3.323−06	9	260	1.218+02	8.536+03	5.694−08
8	215	1.317+02	6.817+03	1.063−08	9	265	1.212+02	7.950+05	5.252−06
8	217	1.316+02	1.674+05	5.217−07	9	274	1.197+02	6.721+04	2.888−07
8	219	1.315+02	4.990+03	1.293−08	9	276	1.195+02	3.974+04	2.553−07
8	220	1.312+02	2.943+04	7.601−08	9	281	1.183+02	4.904+05	2.058−06
8	223	1.308+02	1.424+04	2.922−08	9	282	1.178+02	8.900+05	3.705−06
8	227	1.303+02	1.826+04	4.645−08	9	283	1.177+02	5.918+04	3.685−07
8	237	1.278+02	2.140+05	4.192−07	10	211	1.350+02	8.947+03	1.222−08
8	238	1.274+02	1.323+04	1.933−08	10	212	1.348+02	1.188+04	2.426−08
8	240	1.270+02	6.890+05	1.666−06	10	213	1.333+02	4.228+05	8.443−07
8	243	1.266+02	8.725+04	1.676−07	10	217	1.327+02	1.006+04	3.982−08
8	244	1.263+02	8.510+03	1.222−08	10	219	1.326+02	1.768+04	5.822−08
8	248	1.233+02	1.874+06	5.981−06	10	220	1.323+02	1.182+05	3.878−07
8	250	1.232+02	4.160+05	5.679−07	10	222	1.319+02	5.740+04	1.498−07
8	252	1.229+02	8.325+05	1.507−06	10	224	1.317+02	1.748+06	2.271−06
8	253	1.224+02	3.992+05	1.076−06	10	225	1.315+02	6.580+03	1.279−08

Table 4. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (E2) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}	i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}
10	231	1.306+02	7.474+03	1.913−08	11	243	1.283+02	1.634+05	5.379−07
10	235	1.294+02	1.244+05	1.561−07	11	244	1.281+02	2.642+05	6.504−07
10	237	1.288+02	8.602+03	2.140−08	11	245	1.280+02	1.987+05	3.256−07
10	238	1.285+02	1.618+05	3.003−07	11	249	1.249+02	8.263+04	1.288−07
10	239	1.280+02	3.416+04	4.198−08	11	250	1.249+02	2.409+05	5.633−07
10	240	1.280+02	1.262+05	3.875−07	11	251	1.248+02	5.966+05	4.644−07
10	243	1.276+02	3.687+05	8.993−07	11	252	1.246+02	2.983+04	9.251−08
10	244	1.273+02	1.507+05	2.747−07	11	256	1.236+02	1.177+06	4.492−06
10	245	1.272+02	1.175+04	1.426−08	11	258	1.232+02	7.206+04	5.468−08
10	247	1.248+02	2.016+04	2.353−08	11	259	1.231+02	4.874+05	1.108−06
10	249	1.241+02	5.122+05	5.916−07	11	260	1.231+02	1.911+05	4.339−07
10	250	1.241+02	2.219+05	3.845−07	11	261	1.230+02	1.147+06	3.470−06
10	252	1.238+02	2.735+05	6.286−07	11	262	1.230+02	5.686+04	2.151−07
10	253	1.234+02	1.346+06	4.608−06	11	263	1.229+02	3.085+05	4.658−07
10	254	1.231+02	1.494+04	1.698−08	11	265	1.225+02	4.307+04	9.683−08
10	256	1.228+02	2.594+05	7.335−07	11	266	1.222+02	7.129+04	5.320−08
10	257	1.226+02	4.372+04	9.856−08	11	267	1.222+02	1.363+05	4.068−07
10	259	1.224+02	1.354+05	2.282−07	11	269	1.218+02	6.668+04	1.976−07
10	260	1.223+02	2.221+05	3.738−07	11	270	1.217+02	2.912+05	1.078−06
10	261	1.223+02	6.236+05	1.399−06	11	272	1.213+02	3.555+05	1.307−06
10	262	1.223+02	1.515+06	4.248−06	11	274	1.209+02	2.754+04	4.025−08
10	263	1.222+02	1.208+05	1.352−07	11	276	1.207+02	2.023+04	4.421−08
10	264	1.222+02	1.633+05	5.485−07	11	278	1.204+02	1.532+05	4.439−07
10	267	1.215+02	2.074+04	4.588−08	11	279	1.199+02	2.223+04	7.989−08
10	269	1.211+02	1.819+04	3.997−08	11	280	1.197+02	2.114+04	1.514−08
10	271	1.207+02	3.982+05	1.305−06	11	281	1.195+02	5.325+04	7.602−08
10	272	1.206+02	1.014+04	2.763−08	11	283	1.189+02	1.580+04	3.347−08
10	276	1.200+02	1.264+04	2.048−08	11	284	1.182+02	3.512+04	2.451−08
10	278	1.197+02	1.594+04	3.423−08	11	286	1.181+02	3.584+03	1.249−08
10	279	1.192+02	8.810+04	2.347−07	12	196	1.439+02	3.123+04	9.696−08
10	282	1.183+02	1.188+05	1.247−07	12	197	1.432+02	1.030+05	4.750−07
10	283	1.182+02	7.454+04	1.171−07	12	212	1.358+02	6.950+03	2.884−08
10	285	1.175+02	1.442+04	2.984−08	12	213	1.343+02	9.446+04	3.833−07
10	286	1.174+02	1.601+05	4.137−07	12	215	1.338+02	1.816+04	7.311−08
11	211	1.359+02	1.636+04	3.020−08	12	218	1.336+02	2.985+03	1.598−08
11	213	1.341+02	7.681+04	2.072−07	12	224	1.327+02	1.008+04	2.660−08
11	214	1.339+02	1.367+04	2.449−08	12	225	1.325+02	5.220+04	2.062−07
11	219	1.334+02	4.932+03	2.193−08	12	230	1.318+02	4.109+04	5.346−08
11	220	1.332+02	2.056+04	9.111−08	12	232	1.314+02	7.406+05	9.583−07
11	222	1.328+02	1.010+05	3.561−07	12	235	1.304+02	6.021+04	1.535−07
11	223	1.327+02	8.266+03	2.911−08	12	237	1.298+02	4.294+04	2.169−07
11	224	1.325+02	7.579+05	1.330−06	12	241	1.286+02	5.588+05	6.930−07
11	225	1.323+02	6.768+04	1.777−07	12	243	1.285+02	2.762+03	1.368−08
11	230	1.316+02	6.478+04	5.603−08	12	244	1.283+02	7.610+03	2.817−08
11	232	1.312+02	1.440+06	1.239−06	12	245	1.282+02	2.592+05	6.389−07
11	235	1.302+02	2.412+05	4.087−07	12	246	1.258+02	2.495+05	8.887−07
11	237	1.296+02	1.418+04	4.764−08	12	247	1.257+02	3.041+05	7.206−07
11	239	1.288+02	1.358+05	2.253−07	12	249	1.251+02	8.993+03	2.108−08
11	240	1.288+02	4.487+03	1.860−08	12	250	1.251+02	1.248+05	4.389−07
11	242	1.285+02	4.854+04	4.005−08	12	251	1.250+02	1.145+05	1.341−07

Table 4. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (E2) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}	i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}
12	254	1.240+02	2.906+05	6.703−07	13	259	1.234+02	5.078+05	1.739−06
12	255	1.240+02	5.870+05	2.029−06	13	260	1.233+02	4.863+03	1.663−08
12	257	1.235+02	3.107+05	1.421−06	13	261	1.233+02	1.613+05	7.352−07
12	258	1.234+02	2.308+04	2.634−08	13	263	1.232+02	3.784+04	8.605−08
12	259	1.233+02	9.160+04	3.132−07	13	265	1.227+02	1.863+05	6.309−07
12	260	1.232+02	7.223+04	2.467−07	13	267	1.224+02	9.020+05	4.053−06
12	261	1.232+02	2.404+03	1.094−08	13	269	1.220+02	7.032+04	3.138−07
12	263	1.231+02	1.465+05	3.326−07	13	274	1.212+02	4.398+04	9.682−08
12	265	1.226+02	6.594+05	2.230−06	13	275	1.212+02	1.780+05	7.833−07
12	266	1.224+02	3.518+04	3.949−08	13	276	1.210+02	6.412+04	2.110−07
12	267	1.223+02	1.409+05	6.322−07	13	278	1.206+02	5.885+04	2.567−07
12	269	1.219+02	7.747+05	3.453−06	13	280	1.200+02	5.918+04	6.385−08
12	274	1.211+02	1.550+04	3.407−08	13	281	1.198+02	4.769+05	1.025−06
12	275	1.211+02	2.937+04	1.291−07	13	282	1.193+02	1.953+05	4.165−07
12	276	1.209+02	5.866+04	1.928−07	13	284	1.184+02	4.958+05	5.211−07
12	278	1.205+02	1.248+04	5.436−08	13	285	1.184+02	4.468+04	1.877−07
12	280	1.199+02	8.999+05	9.696−07	13	287	1.179+02	2.211+04	2.304−08
12	281	1.197+02	7.052+05	1.514−06	14	196	1.452+02	1.440+05	4.554−07
12	282	1.192+02	3.280+05	6.983−07	14	197	1.445+02	3.126+04	1.468−07
12	283	1.190+02	2.226+04	7.091−08	14	211	1.373+02	9.584+03	2.708−08
12	284	1.183+02	1.491+06	1.565−06	14	213	1.355+02	3.325+04	1.373−07
12	285	1.183+02	1.892+05	7.935−07	14	218	1.348+02	1.012+04	5.512−08
13	196	1.440+02	8.693+04	2.703−07	14	224	1.338+02	3.397+05	9.124−07
13	197	1.433+02	1.392+04	6.430−08	14	225	1.337+02	2.796+04	1.123−07
13	210	1.364+02	8.091+03	1.128−08	14	232	1.325+02	1.143+05	1.504−07
13	213	1.344+02	3.741+03	1.520−08	14	235	1.315+02	1.055+05	2.735−07
13	214	1.341+02	2.548+04	6.875−08	14	237	1.309+02	1.124+04	5.775−08
13	222	1.331+02	3.329+04	1.768−07	14	238	1.305+02	5.709+03	2.188−08
13	223	1.330+02	3.712+03	1.970−08	14	239	1.301+02	4.864+03	1.234−08
13	224	1.328+02	9.733+04	2.573−07	14	241	1.297+02	4.939+05	6.228−07
13	225	1.326+02	5.456+04	2.158−07	14	244	1.294+02	5.227+04	1.968−07
13	230	1.319+02	4.022+04	5.241−08	14	245	1.293+02	8.404+03	2.106−08
13	232	1.315+02	9.236+05	1.197−06	14	246	1.269+02	1.538+05	5.567−07
13	235	1.305+02	4.534+05	1.157−06	14	247	1.268+02	2.926+05	7.047−07
13	237	1.299+02	6.115+03	3.094−08	14	249	1.261+02	4.235+04	1.009−07
13	238	1.295+02	1.784+04	6.733−08	14	251	1.260+02	2.241+04	2.666−08
13	239	1.291+02	7.748+03	1.936−08	14	252	1.257+02	6.170+03	2.925−08
13	241	1.287+02	1.708+04	2.121−08	14	254	1.250+02	7.990+04	1.872−07
13	242	1.288+02	9.722+04	1.208−07	14	257	1.245+02	1.483+05	6.893−07
13	243	1.286+02	6.077+03	3.014−08	14	258	1.244+02	2.234+05	2.590−07
13	244	1.284+02	1.535+05	5.693−07	14	259	1.243+02	4.806+05	1.670−06
13	245	1.283+02	1.513+05	3.735−07	14	260	1.242+02	2.491+04	8.645−08
13	246	1.259+02	2.336+05	8.332−07	14	261	1.242+02	6.684+04	3.091−07
13	247	1.258+02	1.482+04	3.518−08	14	265	1.236+02	8.057+05	2.768−06
13	249	1.251+02	2.349+05	5.514−07	14	266	1.233+02	9.542+05	1.088−06
13	251	1.251+02	1.026+05	1.203−07	14	267	1.233+02	4.962+05	2.262−06
13	254	1.241+02	2.000+05	4.618−07	14	269	1.229+02	5.265+03	2.384−08
13	255	1.241+02	2.899+05	1.003−06	14	274	1.221+02	1.185+05	2.645−07
13	257	1.236+02	5.009+05	2.294−06	14	275	1.220+02	8.475+05	3.784−06
13	258	1.235+02	5.323+05	6.083−07	14	280	1.208+02	2.272+05	2.486−07

Table 4. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (E2) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}	i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}
14	281	1.206+02	1.402+04	3.058−08	16	245	1.304+02	1.171+05	2.986−07
14	282	1.201+02	3.387+05	7.324−07	16	246	1.279+02	6.290+04	2.316−07
14	284	1.192+02	1.358+05	1.447−07	16	247	1.278+02	2.301+05	5.637−07
14	285	1.192+02	1.026+05	4.369−07	16	249	1.271+02	2.318+04	5.615−08
14	287	1.187+02	2.743+05	2.899−07	16	250	1.271+02	8.823+03	3.207−08
15	196	1.453+02	6.078+03	3.846−08	16	251	1.270+02	8.273+04	1.001−07
15	211	1.373+02	1.853+03	1.048−08	16	252	1.268+02	1.962+04	9.455−08
15	212	1.371+02	6.794+03	5.740−08	16	254	1.261+02	2.256+04	5.375−08
15	213	1.355+02	3.211+05	2.653−06	16	255	1.260+02	6.552+04	2.339−07
15	214	1.352+02	2.279+04	1.250−07	16	257	1.255+02	5.073+03	2.397−08
15	215	1.350+02	6.264+03	5.134−08	16	258	1.254+02	1.060+05	1.250−07
15	224	1.339+02	8.747+04	4.700−07	16	259	1.253+02	9.181+03	3.243−08
15	233	1.324+02	3.913+03	3.084−08	16	260	1.252+02	2.712+05	9.568−07
15	235	1.315+02	4.779+03	2.479−08	16	263	1.251+02	1.880+05	4.410−07
15	238	1.306+02	1.368+05	1.049−06	16	265	1.246+02	2.471+05	8.630−07
15	239	1.301+02	1.902+05	9.657−07	16	267	1.243+02	1.756+04	8.136−08
15	245	1.293+02	3.640+04	1.825−07	16	269	1.239+02	1.913+04	8.804−08
15	246	1.269+02	2.322+04	1.681−07	16	274	1.230+02	2.456+05	5.573−07
15	249	1.261+02	2.762+04	1.317−07	16	275	1.230+02	8.209+03	3.725−08
15	250	1.261+02	6.542+04	4.678−07	16	276	1.228+02	6.719+05	2.279−06
15	254	1.251+02	3.642+04	1.708−07	16	278	1.225+02	7.556+05	3.398−06
15	255	1.250+02	1.154+05	8.107−07	16	280	1.218+02	1.094+06	1.216−06
15	259	1.243+02	5.384+03	3.742−08	16	281	1.216+02	1.762+05	3.904−07
15	260	1.242+02	1.838+05	1.276−06	16	282	1.211+02	4.568+05	1.004−06
15	263	1.241+02	2.067+04	9.544−08	16	283	1.209+02	1.303+04	4.283−08
15	265	1.236+02	1.660+03	1.141−08	16	284	1.202+02	8.915+05	9.652−07
15	274	1.221+02	8.926+05	3.988−06	16	285	1.201+02	8.418+05	3.642−06
15	276	1.219+02	4.397+05	2.937−06	16	287	1.197+02	3.792+04	4.071−08
15	281	1.206+02	3.536+05	1.542−06	17	196	1.471+02	7.364+04	1.194−07
15	282	1.201+02	3.046+05	1.318−06	17	197	1.463+02	6.735+04	1.621−07
15	283	1.200+02	1.044+06	6.755−06	17	213	1.371+02	2.037+04	4.304−08
16	197	1.459+02	5.768+04	2.762−07	17	220	1.361+02	3.501+03	1.215−08
16	211	1.385+02	4.285+03	1.233−08	17	224	1.354+02	1.337+05	1.837−07
16	212	1.383+02	3.816+03	1.641−08	17	235	1.330+02	1.812+06	2.401−06
16	213	1.367+02	2.645+05	1.112−06	17	238	1.320+02	9.193+03	1.801−08
16	214	1.364+02	8.250+03	2.302−08	17	243	1.310+02	2.498+04	6.428−08
16	215	1.362+02	2.298+04	9.584−08	17	244	1.308+02	8.085+03	1.555−08
16	218	1.360+02	1.552+04	8.604−08	17	246	1.282+02	1.142+04	2.111−08
16	223	1.353+02	1.969+03	1.080−08	17	247	1.281+02	5.019+05	6.175−07
16	224	1.350+02	2.197+05	6.006−07	17	249	1.274+02	1.531+04	1.863−08
16	230	1.341+02	1.043+04	1.405−08	17	250	1.274+02	6.695+03	1.222−08
16	232	1.337+02	1.974+05	2.644−07	17	252	1.271+02	5.777+03	1.399−08
16	235	1.326+02	9.338+04	2.463−07	17	253	1.266+02	5.708+04	2.058−07
16	237	1.320+02	9.787+04	5.116−07	17	254	1.264+02	2.178+04	2.607−08
16	238	1.317+02	1.684+04	6.564−08	17	255	1.263+02	4.065+05	7.292−07
16	239	1.312+02	1.870+04	4.826−08	17	259	1.256+02	1.111+04	1.971−08
16	241	1.308+02	1.716+05	2.201−07	17	260	1.255+02	1.377+04	2.440−08
16	242	1.309+02	2.948+05	3.785−07	17	262	1.255+02	5.576+03	1.646−08
16	243	1.307+02	2.645+03	1.355−08	17	263	1.254+02	8.987+03	1.059−08
16	244	1.305+02	4.493+04	1.720−07	17	264	1.254+02	1.465+04	5.181−08

Table 4. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (E2) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}	i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}
17	265	1.249+02	6.128+03	1.075−08	18	274	1.233+02	3.744+04	5.693−08
17	267	1.246+02	3.896+05	9.071−07	18	275	1.233+02	1.507+05	4.583−07
17	269	1.242+02	4.355+04	1.007−07	18	276	1.231+02	8.876+04	2.017−07
17	270	1.242+02	8.322+05	2.404−06	18	278	1.228+02	1.396+05	4.204−07
17	271	1.238+02	1.404+04	4.841−08	18	279	1.223+02	4.442+05	1.660−06
17	272	1.237+02	7.341+05	2.105−06	18	280	1.221+02	1.898+05	1.414−07
17	275	1.233+02	1.496+04	3.410−08	18	281	1.219+02	3.120+05	4.631−07
17	276	1.231+02	1.232+04	2.100−08	18	282	1.214+02	1.564+05	2.303−07
17	279	1.223+02	1.783+05	4.995−07	18	283	1.212+02	8.632+05	1.901−06
17	281	1.218+02	1.906+05	2.121−07	18	284	1.205+02	7.539+04	5.468−08
17	282	1.213+02	3.487+05	3.848−07	18	285	1.204+02	9.185+05	2.663−06
17	286	1.204+02	1.057+06	2.870−06	18	286	1.204+02	3.464+04	1.255−07
18	196	1.471+02	2.599+04	5.620−08	18	287	1.200+02	2.244+05	1.614−07
18	197	1.464+02	1.047+05	3.362−07	19	196	1.478+02	3.557+04	7.763−08
18	211	1.389+02	1.260+04	2.431−08	19	197	1.470+02	1.234+05	4.000−07
18	213	1.371+02	1.156+05	3.257−07	19	212	1.393+02	4.220+03	1.227−08
18	218	1.364+02	4.718+03	1.754−08	19	213	1.377+02	1.005+05	2.856−07
18	219	1.364+02	2.391+04	1.111−07	19	215	1.371+02	4.978+03	1.404−08
18	220	1.361+02	8.767+03	4.058−08	19	218	1.370+02	8.404+03	3.151−08
18	224	1.354+02	6.141+05	1.125−06	19	219	1.369+02	4.329+03	2.028−08
18	230	1.344+02	3.228+04	2.915−08	19	220	1.367+02	9.217+03	4.303−08
18	231	1.343+02	5.292+03	1.909−08	19	222	1.363+02	4.194+03	1.557−08
18	232	1.340+02	6.585+05	5.912−07	19	224	1.360+02	6.198+04	1.145−07
18	233	1.339+02	4.426+03	1.189−08	19	230	1.350+02	1.929+04	1.757−08
18	237	1.324+02	1.342+04	4.703−08	19	231	1.349+02	7.418+03	2.698−08
18	238	1.320+02	2.509+04	6.556−08	19	232	1.346+02	5.579+05	5.052−07
18	239	1.316+02	3.376+04	5.842−08	19	233	1.344+02	6.513+03	1.765−08
18	240	1.315+02	3.045+04	1.316−07	19	235	1.336+02	5.091+05	9.077−07
18	242	1.312+02	2.362+04	2.033−08	19	237	1.329+02	2.030+04	7.172−08
18	243	1.311+02	9.044+04	3.105−07	19	238	1.326+02	4.195+04	1.105−07
18	244	1.308+02	5.566+04	1.428−07	19	239	1.321+02	4.681+04	8.167−08
18	245	1.307+02	1.712+04	2.925−08	19	240	1.321+02	3.224+04	1.405−07
18	246	1.283+02	2.988+05	7.370−07	19	242	1.318+02	2.427+04	2.106−08
18	247	1.281+02	2.077+05	3.409−07	19	243	1.316+02	6.762+04	2.341−07
18	249	1.274+02	8.702+03	1.413−08	19	244	1.314+02	5.460+04	1.413−07
18	250	1.274+02	6.030+03	1.469−08	19	245	1.313+02	2.881+04	4.963−08
18	252	1.271+02	7.897+03	2.551−08	19	246	1.288+02	3.595+05	8.941−07
18	254	1.264+02	1.958+04	3.126−08	19	247	1.287+02	2.320+05	3.838−07
18	255	1.263+02	6.469+04	1.548−07	19	254	1.269+02	1.456+04	2.343−08
18	259	1.256+02	9.345+03	2.211−08	19	255	1.268+02	6.394+04	1.542−07
18	260	1.256+02	1.580+05	3.734−07	19	258	1.262+02	8.718+05	6.941−07
18	261	1.255+02	4.342+04	1.368−07	19	259	1.261+02	2.920+04	6.965−08
18	262	1.255+02	2.580+04	1.016−07	19	260	1.261+02	8.460+04	2.016−07
18	263	1.254+02	2.251+05	3.537−07	19	261	1.260+02	2.331+04	7.401−08
18	265	1.249+02	1.316+05	3.079−07	19	262	1.260+02	4.480+04	1.778−07
18	266	1.247+02	9.609+05	7.462−07	19	263	1.259+02	1.787+05	2.831−07
18	267	1.246+02	2.567+05	7.971−07	19	265	1.254+02	1.040+05	2.454−07
18	269	1.242+02	1.950+05	6.011−07	19	266	1.252+02	7.419+04	5.807−08
18	270	1.242+02	4.265+05	1.643−06	19	267	1.251+02	3.136+05	9.815−07
18	272	1.237+02	3.640+05	1.392−06	19	269	1.247+02	1.805+05	5.610−07

Table 4. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (E2) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}	i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}
19	270	1.247+02	2.162+05	8.397−07	21	282	1.232+02	5.862+04	6.667−08
19	272	1.242+02	1.989+05	7.666−07	21	286	1.222+02	1.959+06	5.481−06
19	274	1.238+02	6.888+03	1.056−08	22	196	1.506+02	1.065+05	2.414−07
19	275	1.238+02	4.354+04	1.334−07	22	235	1.359+02	9.319+04	1.719−07
19	276	1.236+02	5.865+04	1.344−07	22	241	1.339+02	2.186+06	1.960−06
19	278	1.232+02	3.232+05	9.814−07	22	242	1.340+02	9.780+04	8.776−08
19	279	1.228+02	8.122+05	3.058−06	22	246	1.309+02	1.702+05	4.376−07
19	280	1.226+02	5.970+04	4.482−08	22	247	1.308+02	2.795+05	4.780−07
19	281	1.223+02	1.994+05	2.982−07	22	249	1.301+02	1.382+04	2.337−08
19	282	1.218+02	1.126+05	1.670−07	22	250	1.301+02	5.309+03	1.347−08
19	283	1.217+02	4.588+05	1.018−06	22	254	1.290+02	3.539+05	5.883−07
19	284	1.209+02	2.379+05	1.739−07	22	255	1.289+02	4.174+04	1.040−07
19	285	1.209+02	5.060+05	1.478−06	22	256	1.287+02	4.897+03	2.026−08
19	286	1.208+02	4.596+04	1.677−07	22	258	1.283+02	2.150+04	1.768−08
19	287	1.204+02	5.322+05	3.857−07	22	259	1.282+02	1.029+04	2.536−08
20	197	1.489+02	4.340+05	8.662−07	22	261	1.281+02	1.170+04	3.835−08
20	240	1.336+02	1.148+04	3.072−08	22	265	1.274+02	1.909+05	4.649−07
20	246	1.303+02	2.201+06	3.359−06	22	266	1.272+02	4.986+04	4.029−08
20	248	1.295+02	7.060+03	2.486−08	22	267	1.271+02	5.502+04	1.778−07
20	250	1.294+02	1.527+04	2.301−08	22	269	1.267+02	2.637+05	8.461−07
20	252	1.291+02	9.757+03	1.949−08	22	274	1.258+02	2.032+04	3.215−08
20	253	1.286+02	5.027+03	1.496−08	22	275	1.258+02	7.082+05	2.240−06
20	255	1.283+02	1.964+04	2.906−08	22	276	1.256+02	1.356+04	3.206−08
20	260	1.275+02	1.236+04	1.807−08	22	278	1.252+02	1.508+05	4.723−07
20	265	1.268+02	1.052+04	1.522−08	22	279	1.247+02	3.312+03	1.287−08
20	269	1.261+02	7.101+03	1.353−08	22	280	1.245+02	2.195+04	1.700−08
20	272	1.256+02	5.477+03	1.295−08	22	281	1.243+02	5.735+04	8.851−08
20	273	1.256+02	3.453+03	1.144−08	22	282	1.237+02	1.980+04	3.030−08
20	275	1.252+02	6.623+03	1.244−08	22	284	1.228+02	4.597+05	3.465−07
20	286	1.221+02	2.258+05	5.050−07	22	285	1.228+02	6.844+03	2.062−08
21	196	1.498+02	4.043+05	6.797−07	22	286	1.227+02	2.169+05	8.163−07
21	214	1.391+02	8.423+03	1.222−08	22	287	1.223+02	3.681+04	2.750−08
21	224	1.377+02	4.610+04	6.549−08	23	196	1.579+02	1.274+05	3.173−07
21	235	1.352+02	1.824+05	2.499−07	23	197	1.570+02	4.998+04	1.847−07
21	246	1.303+02	5.059+05	9.659−07	23	224	1.445+02	4.513+04	9.415−08
21	247	1.302+02	1.612+06	2.047−06	23	235	1.418+02	1.787+05	3.588−07
21	250	1.295+02	1.370+04	2.582−08	23	241	1.397+02	4.415+05	4.304−07
21	254	1.284+02	1.348+05	1.664−07	23	242	1.397+02	1.786+04	1.742−08
21	255	1.283+02	1.155+05	2.138−07	23	246	1.364+02	5.685+04	1.585−07
21	259	1.276+02	1.284+04	2.350−08	23	247	1.362+02	9.639+05	1.788−06
21	261	1.275+02	1.080+04	2.632−08	23	249	1.355+02	9.819+03	1.801−08
21	262	1.275+02	6.797+03	2.070−08	23	250	1.355+02	4.160+03	1.144−08
21	265	1.269+02	1.092+04	1.976−08	23	254	1.343+02	6.465+04	1.165−07
21	267	1.266+02	7.206+04	1.730−07	23	255	1.342+02	1.485+04	4.010−08
21	269	1.261+02	5.194+03	1.238−08	23	261	1.333+02	1.218+04	4.327−08
21	270	1.261+02	9.847+04	2.933−07	23	262	1.333+02	5.769+03	2.561−08
21	272	1.256+02	7.572+04	2.239−07	23	265	1.326+02	9.487+03	2.502−08
21	274	1.252+02	1.120+04	1.317−08	23	267	1.323+02	5.864+04	2.051−07
21	279	1.241+02	8.778+03	2.535−08	23	269	1.318+02	5.441+04	1.889−07
21	281	1.237+02	1.648+04	1.891−08	23	270	1.318+02	1.693+04	7.344−08

Table 4. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (E2) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}	i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}
23	272	1.313+02	1.074+04	4.624−08	27	224	1.597+02	2.715+03	2.077−08
23	275	1.308+02	2.583+05	8.835−07	27	235	1.564+02	6.374+03	4.676−08
23	278	1.302+02	6.628+04	2.246−07	27	246	1.499+02	1.025+05	1.036−06
23	279	1.296+02	5.291+03	2.222−08	27	247	1.498+02	6.016+04	4.045−07
23	284	1.276+02	1.058+05	8.612−08	28	196	1.848+02	6.249+03	3.201−08
23	286	1.275+02	5.076+05	2.062−06	28	224	1.668+02	3.860+04	1.609−07
24	196	1.591+02	9.389+03	1.781−08	28	235	1.631+02	1.336+05	5.330−07
24	197	1.582+02	1.943+05	5.471−07	28	241	1.604+02	1.141+05	2.199−07
24	213	1.475+02	5.452+03	1.333−08	28	246	1.561+02	1.237+05	6.776−07
24	224	1.455+02	2.253+04	3.576−08	28	254	1.533+02	6.960+03	2.452−08
24	235	1.428+02	1.644+05	2.511−07	28	265	1.512+02	2.244+03	1.153−08
24	246	1.373+02	9.257+05	1.963−06	28	267	1.507+02	3.885+03	2.646−08
24	247	1.372+02	4.450+05	6.277−07	28	269	1.501+02	1.666+03	1.125−08
24	250	1.364+02	1.266+04	2.648−08	29	196	1.873+02	1.842+03	1.937−08
24	255	1.351+02	3.970+04	8.147−08	29	197	1.861+02	3.637+03	5.664−08
24	262	1.342+02	6.346+03	2.141−08	29	224	1.687+02	1.024+04	8.742−08
24	264	1.341+02	3.444+03	1.392−08	29	235	1.650+02	4.421+04	3.610−07
24	265	1.335+02	1.145+04	2.295−08	29	246	1.578+02	1.889+04	2.116−07
24	267	1.331+02	4.338+04	1.153−07	29	247	1.576+02	1.255+05	9.352−07
24	270	1.326+02	1.089+05	3.590−07	29	254	1.550+02	1.853+03	1.334−08
24	272	1.321+02	1.096+05	3.585−07	29	265	1.528+02	6.209+03	6.519−08
24	275	1.317+02	9.261+03	2.407−08	30	196	1.879+02	4.099+03	1.446−08
24	279	1.305+02	2.410+04	7.688−08	30	224	1.692+02	6.287+04	1.800−07
24	281	1.300+02	2.732+04	3.461−08	30	235	1.655+02	2.232+05	6.113−07
24	282	1.294+02	4.054+04	5.090−08	30	241	1.627+02	2.367+05	3.130−07
24	286	1.283+02	1.717+05	5.299−07	30	242	1.628+02	1.101+04	1.458−08
25	196	1.660+02	1.199+04	4.953−08	30	246	1.582+02	7.756+04	2.912−07
25	197	1.651+02	7.739+03	4.743−08	30	254	1.554+02	6.354+03	1.533−08
25	241	1.460+02	6.403+04	1.023−07	30	267	1.528+02	3.168+03	1.478−08
25	246	1.424+02	1.609+04	7.341−08	30	287	1.458+02	1.076+05	1.143−07
25	247	1.423+02	1.853+05	5.625−07	31	197	1.926+02	1.869+03	1.559−08
25	254	1.401+02	1.378+04	4.055−08	31	224	1.741+02	4.074+03	1.851−08
25	255	1.401+02	2.788+03	1.230−08	31	235	1.701+02	2.328+04	1.010−07
25	263	1.389+02	3.615+03	1.046−08	31	241	1.671+02	2.544+05	5.326−07
25	265	1.383+02	4.670+03	2.009−08	31	242	1.672+02	1.010+04	2.118−08
25	267	1.380+02	4.106+03	2.343−08	31	246	1.625+02	1.922+03	1.141−08
25	269	1.374+02	2.087+03	1.182−08	31	247	1.623+02	1.058+05	4.174−07
25	275	1.364+02	3.211+03	1.790−08	31	265	1.571+02	4.533+03	2.517−08
25	287	1.323+02	1.572+06	2.062−06	31	287	1.494+02	2.608+05	4.362−07
26	196	1.676+02	6.824+03	1.915−08	33	121	3.431+02	5.467+02	1.447−08
26	197	1.666+02	1.075+04	4.474−08	33	216	2.040+02	1.551+03	1.452−08
26	246	1.436+02	1.283+05	3.966−07	34	120	3.531+02	3.424+02	1.067−08
26	247	1.434+02	2.303+04	4.734−08	35	94	4.753+02	2.755+02	1.119−08
26	255	1.411+02	1.535+04	4.585−08	35	109	4.187+02	5.273+02	1.109−08
26	265	1.394+02	7.380+03	2.150−08	39	209	2.455+02	4.644+03	2.099−08
26	270	1.385+02	5.312+03	2.545−08	43	139	4.111+02	5.451+02	2.072−08
26	287	1.332+02	2.778+06	2.465−06	43	165	3.421+02	4.708+02	1.032−08
27	196	1.763+02	1.400+04	1.304−07	43	179	3.091+02	1.062+03	1.142−08
27	197	1.752+02	1.192+04	1.645−07	44	164	3.481+02	1.195+03	1.448−08
27	213	1.621+02	9.988+02	1.181−08	44	165	3.472+02	4.866+02	1.466−08

Table 4. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (E2) transitions in Co XI with $f \geq 10^{-8}$. ($a{\pm}b \equiv a{\times}10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}	i	j	λ_{ij}	A_{ji}^{E2}	f_{ij}^{E2}
44	177	3.220+02	6.085+02	1.261−08	57	208	3.145+02	1.955+03	1.450−08
44	268	2.099+02	3.139+03	1.382−08	57	209	3.085+02	7.135+02	1.018−08
45	157	3.635+02	4.219+02	1.254−08	57	228	2.875+02	1.161+03	2.878−08
45	177	3.274+02	3.416+02	1.098−08	59	268	2.446+02	5.804+03	2.603−08
47	137	4.650+02	1.921+02	1.246−08	60	180	4.236+02	5.410+02	1.455−08
47	153	3.971+02	4.256+02	3.019−08	61	179	4.277+02	7.185+02	1.970−08
47	236	2.448+02	4.585+02	1.236−08	62	198	3.644+02	2.604+02	1.037−08
48	179	3.448+02	4.542+02	1.214−08	62	268	2.591+02	9.586+02	1.930−08
49	268	2.294+02	1.034+03	1.632−08	65	268	2.607+02	1.648+03	1.119−08
50	268	2.294+02	1.929+03	1.522−08	67	268	2.625+02	9.364+02	1.935−08
51	268	2.296+02	2.110+03	1.112−08	69	228	3.162+02	6.593+02	1.976−08
52	268	2.299+02	2.894+03	1.147−08	71	268	2.649+02	3.639+03	2.553−08
53	216	2.754+02	1.564+03	1.067−08	84	236	3.398+02	3.161+02	1.642−08
54	228	2.694+02	2.098+03	1.522−08	107	268	3.440+02	7.282+02	1.292−08
55	186	3.566+02	4.157+02	1.057−08	111	209	4.930+02	1.418+02	1.033−08

Table 5. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (M1) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}	i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}
1	2	5.192+03	1.283+02	2.593−07	13	25	1.087+03	3.137+02	5.552−08
4	6	6.677+04	1.820−01	8.112−08	14	16	1.517+04	1.925+00	6.642−08
4	11	2.246+03	2.986+01	2.258−08	14	18	1.163+04	5.112+00	1.554−07
4	13	2.166+03	8.494+01	3.984−08	14	19	8.494+03	3.542+00	5.747−08
4	18	1.648+03	6.617+01	2.695−08	14	22	4.096+03	6.648+00	2.507−08
5	8	2.998+03	1.898+01	3.196−08	14	23	1.818+03	5.016+01	3.729−08
5	10	2.528+03	1.426+01	1.366−08	14	25	1.161+03	5.511+01	1.114−08
5	11	2.254+03	1.972+01	1.126−08	15	16	1.552+04	4.885+00	3.529−07
5	17	1.657+03	4.663+01	1.919−08	16	18	4.977+04	3.493−02	1.946−08
5	19	1.570+03	2.486+02	6.892−08	16	19	1.930+04	1.250+00	1.047−07
5	24	8.941+02	1.142+02	1.368−08	16	26	1.175+03	1.385+02	4.301−08
6	7	5.053+04	5.889−01	1.127−07	16	27	8.731+02	1.977+02	1.129−08
6	9	2.898+03	5.880+01	3.703−08	17	20	8.278+03	8.613+00	1.106−07
6	13	2.239+03	1.368+01	1.028−08	17	21	8.093+03	1.015+01	9.963−08
6	14	1.978+03	1.087+02	6.370−08	17	22	6.259+03	3.845+01	1.694−07
6	19	1.604+03	4.047+01	2.342−08	17	26	1.201+03	2.199+02	3.567−08
7	9	3.075+03	1.546+01	2.191−08	18	19	3.153+04	2.963−01	4.415−08
7	12	2.373+03	7.704+00	1.301−08	18	22	6.322+03	4.013+00	2.405−08
7	14	2.058+03	8.665+01	1.101−07	18	23	2.155+03	3.864+01	2.691−08
7	15	2.052+03	8.965+01	5.658−08	18	26	1.204+03	9.654+01	2.097−08
7	16	1.812+03	5.433+01	5.350−08	19	26	1.251+03	1.935+02	4.543−08
7	25	7.423+02	7.183+01	1.187−08	21	22	2.761+04	2.442−01	2.093−08
8	10	1.612+04	7.297+00	2.275−07	22	25	1.620+03	5.515+01	1.447−08
8	17	3.705+03	2.014+01	3.316−08	22	26	1.486+03	1.409+02	4.668−08
8	20	2.559+03	1.046+02	1.027−07	23	24	2.029+04	1.339+00	1.102−07
8	24	1.274+03	1.296+02	2.523−08	23	26	2.726+03	2.041+01	2.273−08
9	12	1.040+04	6.099+00	1.978−07	23	30	9.874+02	8.383+01	1.225−08
9	13	9.840+03	2.666+00	7.740−08	25	26	1.798+04	1.796+00	1.305−07
9	15	6.168+03	5.082+00	2.898−08	25	28	1.630+03	5.232+01	2.084−08
9	16	4.414+03	2.513+00	1.468−08	26	31	1.235+03	7.071+01	1.078−08
9	25	9.786+02	7.029+01	2.018−08	27	29	2.997+03	1.414+01	1.904−08
10	11	2.080+04	5.802+00	2.821−07	28	29	1.423+04	5.724+00	8.692−08
10	17	4.810+03	1.267+01	4.396−08	28	30	1.136+04	4.742−01	1.375−08
10	20	3.042+03	7.613+00	1.320−08	28	31	3.970+03	2.622+01	6.194−08
10	21	3.017+03	3.437+01	4.690−08	29	31	5.505+03	3.275+00	2.976−08
10	26	9.612+02	3.326+02	3.455−08	30	31	6.103+03	6.617+01	2.463−07
11	12	9.168+04	2.266−02	1.904−08	32	33	3.219+04	6.737−01	2.093−07
11	13	6.100+04	1.720−01	6.396−08	32	40	1.371+03	1.022+02	2.880−08
11	14	1.326+04	2.685+00	4.719−08	33	34	1.767+04	2.953+00	2.073−07
11	17	6.258+03	1.133+01	8.869−08	33	40	1.432+03	7.078+01	1.088−08
11	21	3.529+03	5.936+00	1.478−08	33	42	1.415+03	6.253+01	1.877−08
11	25	1.068+03	4.343+02	4.948−08	34	39	1.595+03	5.982+01	3.041−08
12	13	1.823+05	2.763−03	1.376−08	34	61	6.088+02	1.857+02	1.032−08
12	14	1.550+04	6.909−01	2.489−08	35	36	3.036+04	1.164+00	1.287−07
12	15	1.515+04	8.413−01	1.448−08	35	39	2.821+03	2.608+01	2.490−08
12	16	7.668+03	1.951+00	1.720−08	35	43	2.113+03	4.059+01	2.173−08
12	18	6.644+03	3.906+00	3.877−08	35	56	9.253+02	1.778+02	1.825−08
12	19	5.488+03	4.084+00	2.766−08	36	37	2.731+04	2.759+00	2.314−07
13	19	5.658+03	8.389+00	6.039−08	36	39	3.110+03	1.268+01	1.840−08
13	23	1.642+03	1.777+01	1.077−08	37	38	2.906+04	2.589+00	2.186−07

Table 5. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (M1) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}	i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}
37	41	3.267+03	2.395+01	3.831−08	54	94	8.682+02	2.914+02	3.293−08
38	40	3.773+03	2.927+01	3.123−08	54	115	6.633+02	2.005+02	1.102−08
38	42	3.656+03	2.686+01	5.383−08	55	56	2.102+04	1.228+00	1.085−07
38	44	2.422+03	8.429+00	1.111−08	57	58	2.170+05	2.435−03	2.577−08
38	46	1.942+03	1.935+01	1.642−08	57	66	3.566+03	9.973+00	1.901−08
38	55	1.076+03	8.176+01	2.129−08	57	106	8.437+02	9.463+01	1.010−08
39	41	4.706+04	2.847−01	7.091−08	57	119	7.248+02	2.062+02	1.624−08
39	43	8.414+03	1.452+00	1.541−08	57	124	6.718+02	2.085+02	1.411−08
39	44	6.154+03	3.044+00	1.296−08	58	59	2.979+05	7.161−04	1.270−08
39	56	1.377+03	7.750+01	2.202−08	58	65	3.914+03	5.170+00	1.187−08
40	42	1.181+05	2.356−02	9.852−08	58	121	7.165+02	3.171+02	2.441−08
41	46	4.114+03	4.015+00	1.019−08	59	63	4.083+03	1.328+01	3.320−08
41	48	2.317+03	1.882+01	1.010−08	59	109	8.370+02	1.904+02	2.000−08
41	55	1.521+03	3.564+01	1.236−08	59	122	6.892+02	2.380+02	1.271−08
42	46	4.144+03	5.957+00	2.301−08	59	123	6.829+02	1.942+02	1.358−08
42	47	3.004+03	2.611+01	1.766−08	60	61	4.794+04	9.685−02	5.006−08
42	55	1.525+03	2.385+01	1.247−08	60	85	1.941+03	2.381+01	1.345−08
43	44	2.292+04	4.059−01	2.397−08	62	64	4.108+04	6.497−02	3.288−08
43	46	6.873+03	3.164+01	1.681−07	62	66	2.310+04	1.382+00	2.211−07
43	55	1.786+03	4.069+01	1.459−08	62	67	1.974+04	4.023−01	2.351−08
44	45	1.970+04	1.282+00	4.973−08	62	69	1.272+04	3.668−01	1.779−08
44	46	9.818+03	6.597+00	9.532−08	63	65	1.386+05	1.080−02	2.332−08
44	48	3.443+03	2.502+01	2.965−08	63	76	5.388+03	2.947+00	1.603−08
45	46	1.957+04	4.320−01	3.722−08	63	77	3.188+03	9.845+00	1.500−08
45	47	7.010+03	4.221+00	1.555−08	63	79	2.836+03	1.525+01	1.839−08
45	48	4.173+03	3.135+01	8.184−08	63	82	2.535+03	2.430+01	1.756−08
46	48	5.304+03	3.922+00	1.102−08	63	117	9.334+02	8.921+01	1.165−08
46	56	2.164+03	2.852+01	2.671−08	64	66	5.277+04	5.332−02	2.226−08
47	48	1.031+04	7.630+00	2.432−07	64	67	3.801+04	9.218−01	9.982−08
49	50	5.657+05	4.902−04	4.703−08	64	69	1.842+04	8.618−01	4.382−08
49	64	1.905+03	2.226+01	2.423−08	64	73	9.503+03	2.080+00	4.224−08
49	69	1.726+03	1.992+01	1.780−08	64	100	1.232+03	1.001+02	1.139−08
49	102	7.194+02	1.082+02	1.678−08	64	104	1.130+03	3.786+01	1.087−08
49	112	6.730+02	7.711+01	1.047−08	65	68	2.270+04	3.210−01	2.480−08
50	51	2.817+05	4.284−03	7.646−08	65	69	1.797+04	4.019−01	1.297−08
50	65	1.916+03	1.260+01	1.041−08	65	70	1.593+04	4.450−01	2.258−08
50	103	7.158+02	3.490+02	1.341−08	65	75	6.996+03	2.474+00	2.421−08
51	52	1.700+05	1.740−02	1.005−07	65	81	2.578+03	4.421+01	2.935−08
51	90	9.421+02	7.277+01	1.291−08	65	99	1.258+03	1.306+02	2.067−08
52	53	1.174+05	4.020−02	1.039−07	65	110	1.054+03	9.062+01	1.508−08
52	65	1.952+03	2.354+01	1.008−08	66	68	4.210+04	1.043−01	4.156−08
52	90	9.473+02	1.302+02	1.752−08	66	69	2.829+04	6.862−01	8.232−08
52	91	9.105+02	7.349+01	1.142−08	66	71	2.407+04	7.155−01	9.320−08
53	54	9.383+04	4.403−02	6.974−08	66	73	1.159+04	9.026−01	2.726−08
53	63	2.013+03	2.089+01	1.016−08	66	100	1.261+03	1.576+02	1.879−08
53	91	9.176+02	1.953+02	2.466−08	67	69	3.573+04	2.671−01	1.022−07
53	109	6.913+02	2.141+02	1.227−08	67	81	2.775+03	2.975+01	6.871−08
54	76	1.489+03	4.304+01	1.192−08	67	99	1.303+03	2.192+01	1.117−08
54	80	1.188+03	5.546+01	1.173−08	68	69	8.622+04	1.994−02	1.482−08
54	87	1.061+03	6.923+01	1.168−08	68	70	5.341+04	2.102−01	1.199−07

Table 5. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (M1) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}	i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}
68	71	5.618+04	1.594−01	7.544−08	79	104	1.849+03	2.677+01	1.029−08
68	73	1.599+04	1.181+00	4.529−08	79	110	1.657+03	3.863+01	1.192−08
68	75	1.011+04	1.165+00	2.382−08	79	116	1.483+03	7.916+01	2.609−08
69	73	1.963+04	3.341+00	2.896−07	80	83	2.660+04	1.453+00	1.797−07
69	81	3.009+03	2.355+01	3.197−08	80	93	3.412+03	1.023+01	1.488−08
69	102	1.233+03	1.089+02	2.483−08	80	94	3.229+03	4.908+01	7.672−08
69	110	1.119+03	5.967+01	1.681−08	80	115	1.503+03	4.020+01	1.134−08
70	72	3.640+04	8.535−01	2.119−07	80	120	1.308+03	9.508+01	2.031−08
70	75	1.247+04	2.315+00	5.400−08	81	85	3.265+04	8.546−02	1.366−08
70	91	1.912+03	1.658+01	1.135−08	81	88	1.032+04	7.449+00	1.785−07
71	73	2.235+04	1.003+00	7.515−08	81	99	2.458+03	2.853+01	2.584−08
71	75	1.233+04	4.304−01	1.308−08	81	102	2.090+03	1.628+01	1.066−08
71	104	1.213+03	5.451+01	1.202−08	81	103	2.053+03	4.438+01	1.402−08
71	124	8.572+02	1.403+02	1.030−08	81	111	1.770+03	5.944+01	1.395−08
72	74	3.769+04	4.915−01	1.256−07	82	88	1.025+04	3.587+00	5.646−08
72	75	1.898+04	4.250−01	1.835−08	82	90	6.412+03	5.124+00	4.210−08
72	76	1.135+04	9.674−01	1.867−08	82	104	2.004+03	3.606+01	2.171−08
72	90	2.208+03	2.112+01	1.235−08	82	113	1.650+03	2.583+01	1.405−08
72	94	1.760+03	2.467+01	1.374−08	83	87	1.592+04	5.973−01	1.946−08
73	75	2.750+04	1.890+00	2.857−07	83	94	3.675+03	3.737+01	6.487−08
73	81	3.554+03	8.247+00	1.041−08	84	85	8.331+04	1.360−02	2.830−08
73	104	1.282+03	6.593+01	1.626−08	85	88	1.510+04	3.489−01	1.788−08
73	112	1.169+03	9.224+01	1.259−08	86	87	3.335+04	3.806−01	7.613−08
73	116	1.095+03	1.582+02	3.792−08	86	90	8.069+03	7.753+00	6.054−08
74	76	1.623+04	7.386−01	2.432−08	86	91	6.000+03	1.180+01	6.369−08
74	91	2.132+03	2.177+01	1.235−08	87	91	7.317+03	4.639+00	3.103−08
74	120	1.003+03	1.986+02	2.497−08	87	94	4.778+03	3.497+01	1.197−07
74	139	7.445+02	1.389+02	1.155−08	87	98	3.473+03	8.433+00	1.270−08
75	76	2.822+04	1.232+00	1.839−07	87	101	2.426+03	1.655+01	1.460−08
75	109	1.250+03	5.270+01	1.236−08	87	105	2.314+03	1.115+01	1.045−08
75	120	1.030+03	1.167+02	2.321−08	88	89	2.145+04	1.896−01	1.308−08
77	78	4.518+04	3.057−01	1.169−07	88	90	1.713+04	2.521−01	1.479−08
77	79	2.568+04	1.098+00	1.086−07	88	96	4.394+03	3.385+00	1.306−08
77	82	1.238+04	2.638+00	4.543−08	89	90	8.513+04	5.734−02	8.306−08
77	88	5.605+03	7.379+00	2.607−08	89	92	1.037+04	1.553+00	3.341−08
77	89	4.444+03	1.667+01	3.703−08	89	95	5.711+03	7.367+00	3.602−08
77	90	4.224+03	1.849+01	4.944−08	89	97	5.386+03	1.361+01	3.947−08
78	79	5.950+04	7.911−02	3.359−08	89	116	2.048+03	1.804+01	1.512−08
78	80	4.928+04	3.670−01	1.603−07	90	91	2.341+04	2.894+00	2.972−07
78	87	8.286+03	8.697−01	1.074−08	90	93	1.012+04	1.156+00	2.221−08
78	90	4.659+03	4.773+00	1.243−08	90	96	5.909+03	8.638+00	4.521−08
78	91	3.886+03	3.984+01	9.017−08	90	98	5.154+03	2.091+00	1.041−08
78	93	3.191+03	1.488+01	2.271−08	91	94	1.377+04	8.639+00	2.947−07
78	116	1.447+03	6.397+01	1.605−08	91	98	6.610+03	4.437+00	2.906−08
79	82	2.389+04	5.265−01	3.378−08	91	120	1.895+03	2.180+01	1.174−08
79	88	7.170+03	2.636+00	1.524−08	91	139	1.144+03	6.772+01	1.595−08
79	89	5.374+03	1.440+01	4.675−08	92	93	7.090+04	3.424−02	3.225−08
79	90	5.055+03	7.305+00	2.798−08	92	108	3.224+03	1.032+01	1.206−08
79	92	3.540+03	2.798+01	5.256−08	92	109	3.177+03	2.257+01	3.415−08
79	93	3.372+03	1.015+01	2.162−08	92	110	3.114+03	1.112+01	1.213−08

Table 5. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (M1) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}	i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}
92	113	2.736+03	2.621+01	2.940−08	104	114	9.206+03	3.996+00	5.077−08
92	116	2.551+03	1.205+01	1.176−08	104	116	7.486+03	3.850+00	4.312−08
92	117	2.292+03	3.435+01	2.705−08	104	121	3.940+03	1.684+01	3.919−08
93	113	2.845+03	2.008+01	1.950−08	104	122	3.201+03	7.891+00	1.212−08
94	98	1.271+04	1.253+00	2.530−08	104	135	2.222+03	1.943+01	1.918−08
94	139	1.248+03	1.181+02	2.756−08	105	139	1.728+03	7.865+01	3.019−08
95	96	1.698+05	8.315−03	4.791−08	106	108	7.752+04	9.028−03	1.220−08
95	97	9.472+04	7.039−02	6.312−08	106	114	1.434+04	8.011−01	3.703−08
95	108	4.320+03	3.901+00	1.091−08	106	134	2.431+03	1.342+01	1.784−08
95	114	3.468+03	6.249+00	1.127−08	106	164	9.817+02	3.079+02	4.449−08
96	98	4.036+04	4.073−01	1.243−07	107	108	1.148+05	5.988−03	1.776−08
97	102	6.696+03	1.812+00	1.218−08	107	114	1.525+04	2.718+00	1.422−07
97	103	6.330+03	7.373+00	2.215−08	107	122	3.712+03	4.620+00	1.432−08
97	107	4.712+03	5.837+00	1.943−08	107	125	3.252+03	4.332+00	1.030−08
97	108	4.526+03	2.484+00	1.145−08	107	133	2.454+03	3.205+01	1.447−08
97	110	4.312+03	6.096+00	2.549−08	107	164	9.858+02	7.205+01	1.050−08
97	122	2.076+03	2.746+01	2.662−08	108	109	2.193+05	1.125−03	1.082−08
97	125	1.924+03	4.171+01	3.472−08	108	112	4.143+04	6.539−02	1.122−08
98	117	3.058+03	2.236+01	2.509−08	108	114	1.759+04	7.575−01	3.513−08
98	135	1.669+03	9.281+01	3.102−08	108	122	3.836+03	2.008+01	4.430−08
98	149	1.032+03	8.042+01	1.028−08	109	113	1.968+04	2.289−01	1.330−08
99	102	1.396+04	8.008−01	2.341−08	109	115	1.394+04	2.944+00	1.072−07
99	104	1.094+04	4.698−01	1.264−08	109	116	1.294+04	1.770+00	4.446−08
99	106	7.675+03	7.111+00	6.279−08	109	117	8.226+03	5.652+00	5.733−08
99	111	6.320+03	4.435+01	1.328−07	109	120	5.849+03	6.110+00	3.918−08
100	111	7.153+03	2.025+01	1.553−07	109	123	3.711+03	1.902+01	3.925−08
100	119	3.264+03	6.047+00	1.932−08	110	112	7.591+04	3.144−02	1.811−08
100	133	1.910+03	2.705+01	1.479−08	110	113	2.252+04	7.650−01	7.758−08
101	105	5.018+04	9.267−02	4.081−08	110	116	1.411+04	2.966+00	1.181−07
101	127	2.516+03	3.611+01	3.426−08	110	117	8.683+03	9.237−01	1.392−08
101	139	1.671+03	1.348+02	5.641−08	111	124	3.632+03	5.630+00	2.227−08
101	140	1.514+03	1.619+02	4.634−08	111	126	3.403+03	6.157+00	1.069−08
101	148	1.196+03	7.609+01	1.633−08	111	137	2.163+03	1.539+01	2.158−08
102	103	1.158+05	1.674−02	1.683−08	112	114	3.057+04	8.113−01	1.705−07
102	104	5.048+04	1.484−01	8.501−08	112	118	7.053+03	5.429+00	2.024−08
102	107	1.590+04	1.501+00	5.691−08	112	119	6.351+03	4.247+00	2.568−08
102	108	1.397+04	8.410−01	3.691−08	112	124	3.756+03	1.157+01	2.447−08
102	110	1.212+04	1.954+00	6.449−08	113	115	4.780+04	9.913−02	4.243−08
102	112	1.045+04	3.214+00	5.259−08	113	116	3.779+04	1.182−01	2.532−08
102	118	4.210+03	9.110+00	1.211−08	113	117	1.413+04	1.399+00	4.188−08
102	119	3.950+03	8.332+00	1.949−08	113	123	4.572+03	6.382+00	2.001−08
102	121	3.654+03	4.160+00	1.249−08	114	117	1.443+04	6.899+00	2.873−07
102	131	2.242+03	1.379+01	1.039−08	114	125	4.133+03	1.614+01	4.134−08
103	106	1.998+04	9.612−01	1.151−07	114	137	2.378+03	2.270+01	1.283−08
103	107	1.844+04	2.484+00	2.532−07	115	117	2.006+04	2.916−01	1.407−08
103	112	1.148+04	1.250+00	4.941−08	115	120	1.008+04	7.183+00	1.093−07
103	126	2.689+03	1.214+01	1.316−08	115	123	5.056+03	6.194+00	1.899−08
103	129	2.328+03	4.007+01	3.257−08	116	120	1.067+04	1.061+01	2.266−07
103	131	2.286+03	1.228+01	1.924−08	116	136	2.861+03	7.143+00	1.096−08
104	109	1.775+04	1.811+00	1.141−07	117	120	2.025+04	2.803−01	2.153−08

Table 5. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (M1) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}	i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}
117	123	6.760+03	3.068+00	2.102−08	129	166	1.537+03	2.022+01	1.432−08
117	135	3.676+03	1.477+01	2.991−08	129	176	1.173+03	3.591+01	1.481−08
118	119	6.380+04	1.357−01	1.657−07	130	132	7.593+04	1.254−01	8.126−08
118	124	8.037+03	4.167+00	8.070−08	130	136	1.490+04	2.033+00	8.458−08
118	126	6.995+03	7.432+00	5.451−08	130	140	4.548+03	3.279+00	1.271−08
118	133	4.295+03	4.926+00	1.362−08	130	143	3.315+03	2.424+01	4.992−08
118	169	1.087+03	3.199+01	1.134−08	130	156	1.834+03	2.242+01	1.131−08
119	121	4.884+04	2.367−01	1.269−07	130	165	1.541+03	3.970+01	1.767−08
119	122	1.265+04	4.298−01	1.546−08	130	167	1.488+03	5.171+01	1.287−08
119	124	9.195+03	4.078+00	5.169−08	131	134	4.180+04	2.225−01	8.745−08
119	125	8.532+03	9.180+00	1.503−07	131	146	2.627+03	1.308+01	1.353−08
119	126	7.856+03	3.125+00	1.446−08	132	158	1.789+03	1.060+02	6.782−08
119	145	1.788+03	1.496+01	1.075−08	132	175	1.284+03	4.828+01	1.192−08
120	123	1.015+04	9.129−01	1.128−08	133	137	1.272+04	4.254+00	2.064−07
120	140	2.448+03	1.844+01	1.656−08	133	142	3.930+03	2.535+00	1.174−08
121	122	1.706+04	1.178+00	5.140−08	133	173	1.359+03	3.758+01	1.040−08
121	123	1.389+04	5.162+00	1.991−07	134	144	3.300+03	1.090+01	2.373−08
121	135	5.099+03	5.182+00	2.693−08	134	157	1.864+03	1.922+01	1.001−08
121	144	2.002+03	2.877+01	2.306−08	135	138	9.865+03	2.289+00	3.339−08
121	157	1.365+03	5.258+01	1.468−08	135	165	1.626+03	2.096+01	1.039−08
122	123	7.470+04	1.245−02	1.388−08	136	138	1.465+04	3.725+00	9.588−08
122	124	3.370+04	4.073−01	4.623−08	136	148	3.050+03	1.538+01	2.574−08
122	125	2.623+04	1.157+00	1.193−07	136	158	1.980+03	7.048+01	3.314−08
122	135	7.272+03	5.472+00	5.784−08	136	177	1.238+03	1.486+02	2.733−08
122	138	4.186+03	3.975+00	1.392−08	137	142	5.686+03	2.241+00	1.086−08
122	141	2.772+03	8.937+00	1.029−08	138	165	1.947+03	4.946+01	3.514−08
123	135	8.056+03	7.336+00	7.137−08	138	177	1.352+03	4.540+01	1.245−08
124	125	1.183+05	4.526−03	1.424−08	139	140	1.609+04	3.163+00	1.023−07
124	126	5.394+04	2.655−01	5.790−08	139	165	2.036+03	6.321+01	3.273−08
124	146	2.151+03	2.369+01	1.644−08	140	165	2.331+03	3.252+01	2.648−08
124	147	2.133+03	2.971+01	1.013−08	141	142	3.148+04	4.600−01	4.556−08
125	135	1.006+04	9.164+00	1.854−07	141	151	5.517+03	1.809+00	1.100−08
125	138	4.981+03	4.804+00	2.382−08	141	153	4.476+03	6.735+00	2.023−08
125	157	1.572+03	3.080+01	1.141−08	141	164	2.603+03	5.828+01	3.945−08
126	133	1.113+04	1.376+00	2.554−08	142	153	5.218+03	1.745+00	1.068−08
126	147	2.221+03	4.095+01	3.028−08	142	163	2.854+03	4.881+01	2.981−08
127	128	1.098+05	1.984−02	2.989−08	142	164	2.837+03	5.428+01	6.550−08
127	136	9.060+03	7.082+00	7.262−08	142	169	2.313+03	3.083+01	2.472−08
127	139	4.976+03	1.499+01	5.565−08	143	148	1.071+04	9.690+00	2.000−07
127	148	2.282+03	1.015+02	7.919−08	143	165	2.879+03	1.888+01	2.346−08
127	155	1.902+03	2.738+01	1.238−08	144	145	2.531+04	1.611+00	1.160−07
127	165	1.445+03	1.273+02	3.320−08	144	149	1.509+04	7.834−01	2.674−08
128	130	2.927+04	1.803+00	1.853−07	144	151	9.874+03	1.545+00	2.259−08
128	138	5.899+03	4.630+00	1.932−08	145	146	7.060+04	1.483−01	7.390−08
128	139	5.212+03	5.707+00	2.789−08	145	153	9.624+03	7.323−01	1.017−08
128	140	3.937+03	6.464+00	1.502−08	145	209	7.677+02	2.007+02	1.182−08
128	143	2.978+03	4.375+01	5.817−08	146	147	2.479+05	5.036−03	2.320−08
129	131	1.254+05	1.113−02	5.246−08	146	157	5.566+03	2.466+00	1.718−08
129	147	2.547+03	2.103+01	2.045−08	146	208	8.156+02	2.998+02	1.495−08
129	160	1.673+03	3.610+01	1.515−08	147	159	5.552+03	1.279+00	1.182−08

Table 5. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (M1) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}	i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}
147	166	3.876+03	2.988+00	1.346−08	156	187	1.824+03	1.806+01	1.126−08
149	150	5.198+04	8.465−02	2.572−08	156	216	7.815+02	2.035+02	1.397−08
149	151	2.857+04	2.791−01	3.416−08	157	166	1.214+04	1.764+00	2.596−08
149	153	1.296+04	2.485+00	4.696−08	157	167	9.840+03	8.801−01	1.278−08
149	157	5.986+03	8.636+00	3.479−08	157	175	4.511+03	3.703+00	1.130−08
149	158	5.930+03	4.761+00	2.510−08	157	177	3.288+03	1.321+01	2.856−08
149	165	4.075+03	6.410+00	1.995−08	158	165	1.303+04	4.503+00	1.433−07
149	172	2.789+03	1.815+01	1.588−08	158	171	5.963+03	1.951+00	1.040−08
149	175	2.572+03	3.619+01	2.692−08	158	177	3.305+03	1.255+01	2.056−08
150	151	6.343+04	3.960−02	3.184−08	159	161	4.083+04	4.736−02	1.776−08
150	152	3.460+04	1.141+00	1.365−07	159	162	1.905+04	3.941−01	2.145−08
150	153	1.727+04	2.549−01	1.139−08	159	170	6.445+03	4.294+00	4.011−08
150	157	6.764+03	2.191+00	1.503−08	160	166	1.885+04	4.313−01	4.594−08
150	161	5.656+03	2.118+00	1.016−08	160	168	1.301+04	1.873+00	4.755−08
150	162	4.882+03	4.246+00	1.012−08	160	173	5.867+03	1.380+01	7.118−08
150	172	2.947+03	2.234+01	2.909−08	160	174	5.881+03	8.131+00	8.432−08
150	179	1.861+03	2.412+01	1.252−08	160	180	2.762+03	5.632+00	1.288−08
151	153	2.373+04	5.242−01	3.319−08	161	162	3.572+04	9.829−01	1.253−07
151	156	9.373+03	8.660−01	1.141−08	161	166	1.872+04	1.286+00	4.503−08
151	157	7.572+03	3.638+00	2.345−08	161	171	7.128+03	2.650+00	2.692−08
151	158	7.483+03	1.673+00	1.404−08	161	177	3.635+03	4.851+00	1.281−08
151	161	6.209+03	3.710+00	1.608−08	161	180	2.759+03	1.352+01	1.028−08
151	165	4.753+03	3.256+00	1.379−08	161	186	2.041+03	2.373+01	1.977−08
151	170	3.428+03	1.750+01	2.312−08	161	221	7.941+02	2.460+02	1.551−08
151	171	3.318+03	1.538+01	2.540−08	162	166	3.934+04	1.822−01	4.227−08
151	179	1.917+03	3.025+01	1.250−08	162	169	1.066+04	1.332+00	2.268−08
151	195	1.243+03	5.453+01	1.262−08	162	175	6.071+03	3.990+00	3.307−08
152	154	3.372+04	1.723+00	1.469−07	162	221	8.122+02	1.589+02	1.571−08
152	157	8.408+03	1.748+00	2.780−08	163	168	2.670+04	2.190−01	2.341−08
152	159	8.102+03	3.303+00	3.251−08	163	169	1.218+04	6.200−01	2.759−08
152	160	6.744+03	6.149+00	2.097−08	163	176	4.639+03	4.476+00	2.887−08
152	162	5.685+03	4.160+00	2.015−08	163	180	3.099+03	7.793+00	2.244−08
152	169	3.707+03	1.477+01	3.043−08	164	169	1.251+04	1.228+00	2.883−08
152	170	3.590+03	4.329+00	1.254−08	164	170	1.127+04	7.602−01	2.170−08
152	179	1.967+03	1.161+01	1.010−08	164	179	3.138+03	4.802+00	1.064−08
153	156	1.549+04	5.179−01	2.485−08	164	180	3.120+03	3.742+01	5.460−08
153	162	6.807+03	5.042+00	2.335−08	166	169	1.461+04	1.365+00	4.371−08
153	171	3.858+03	3.778+00	1.124−08	166	170	1.294+04	6.590−01	2.483−08
153	177	2.538+03	8.119+00	1.045−08	166	172	9.168+03	6.372−01	1.204−08
154	159	1.066+04	3.835+00	1.308−07	166	176	4.952+03	4.860+00	1.787−08
154	173	3.459+03	2.514+01	4.511−08	166	179	3.256+03	1.036+01	2.469−08
154	174	3.464+03	9.151+00	3.293−08	166	180	3.236+03	1.108+01	1.739−08
154	180	2.080+03	1.413+01	1.833−08	167	170	1.723+04	5.885−01	2.619−08
154	198	1.066+03	3.980+01	1.357−08	167	171	1.478+04	1.845+00	8.059−08
155	156	1.591+04	7.137+00	2.166−07	167	177	4.938+03	3.247+01	1.583−07
155	158	1.114+04	7.773−01	1.156−08	168	169	2.241+04	7.736−02	1.164−08
155	171	3.883+03	2.554+01	4.620−08	168	173	1.068+04	3.188+00	5.456−08
155	187	1.637+03	1.116+02	4.481−08	168	174	1.073+04	6.696−01	2.312−08
156	161	1.839+04	7.674+00	2.919−07	168	176	5.614+03	3.316+00	3.133−08
156	186	1.837+03	4.465+01	2.259−08	168	180	3.506+03	4.761+00	1.755−08

Table 5. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (M1) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}	i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}
169	172	2.460+04	5.355−01	7.287−08	186	228	1.210+03	6.689+01	1.467−08
169	173	2.042+04	1.268+00	3.965−08	186	236	1.044+03	9.241+01	1.133−08
169	174	2.060+04	1.402+00	8.915−08	187	195	6.667+03	2.037+00	1.086−08
169	175	1.411+04	6.986−01	3.128−08	188	190	1.355+05	1.613−02	3.699−08
169	176	7.490+03	2.352+00	1.979−08	188	199	3.420+03	2.195+01	4.488−08
169	179	4.189+03	4.832+00	1.906−08	188	202	3.034+03	8.605+00	1.188−08
170	172	3.143+04	3.288−01	4.869−08	188	217	1.467+03	3.901+01	1.259−08
170	174	2.518+04	5.940−01	3.763−08	188	219	1.450+03	3.871+01	1.016−08
171	175	1.908+04	4.809−01	1.967−08	188	240	1.043+03	7.430+01	1.010−08
171	187	2.829+03	6.979+00	1.047−08	189	191	7.876+05	1.791−04	3.331−08
172	175	3.310+04	1.281−01	2.103−08	189	207	2.602+03	2.045+01	4.153−08
172	176	1.077+04	2.068+00	2.398−08	189	214	1.527+03	4.908+01	3.431−08
172	177	8.878+03	6.616−01	1.042−08	190	193	2.346+05	5.950−03	3.926−08
172	200	1.441+03	9.504+01	2.960−08	190	204	2.874+03	1.493+01	1.848−08
172	216	9.409+02	9.563+01	1.269−08	191	192	9.199+05	1.202−04	2.287−08
173	176	1.183+04	1.328+00	5.571−08	191	206	2.667+03	7.683+00	1.229−08
173	209	1.100+03	4.310+01	1.564−08	191	207	2.611+03	2.523+01	2.578−08
175	177	1.213+04	3.178+00	9.351−08	191	215	1.498+03	3.506+01	1.771−08
175	179	5.957+03	5.355+00	2.848−08	192	206	2.675+03	2.448+01	2.626−08
175	200	1.507+03	4.685+01	1.595−08	193	205	2.762+03	2.026+01	2.318−08
176	203	1.562+03	5.027+01	1.839−08	194	195	5.306+04	7.109−02	4.000−08
176	209	1.213+03	1.008+02	2.223−08	196	197	2.928+04	4.309−01	8.306−08
178	234	9.457+02	1.141+02	1.020−08	198	200	2.716+04	4.888−01	8.108−08
178	260	6.490+02	2.771+02	1.750−08	198	203	1.317+04	8.148−01	2.118−08
179	194	3.784+03	1.368+01	2.936−08	199	202	2.695+04	2.404+00	2.243−07
179	195	3.532+03	8.011+00	1.997−08	199	273	8.749+02	2.787+02	3.198−08
180	194	3.811+03	5.062+00	1.653−08	201	203	3.303+04	2.274−01	7.438−08
181	182	4.327+05	7.682−04	4.313−08	202	204	3.871+04	1.506+00	2.820−07
181	189	6.188+03	1.600+01	9.187−08	202	271	9.091+02	1.523+02	1.887−08
181	191	6.139+03	1.696+00	1.917−08	203	221	2.749+03	8.899+00	1.008−08
181	210	1.442+03	3.348+01	1.044−08	204	205	5.473+04	7.289−01	2.619−07
182	183	2.293+05	5.423−03	6.412−08	205	206	7.964+04	2.765−01	1.972−07
182	189	6.277+03	1.014+01	2.995−08	206	207	1.237+05	7.067−02	1.080−07
182	191	6.228+03	1.121+01	6.516−08	206	257	1.093+03	4.583+01	1.095−08
182	210	1.447+03	1.035+02	1.624−08	207	259	1.086+03	7.371+01	1.957−08
182	226	1.104+03	3.963+01	1.087−08	208	209	1.603+04	2.135+00	1.646−07
183	184	1.517+05	1.557−02	7.164−08	208	268	1.090+03	3.765+01	1.342−08
183	191	6.402+03	7.814+00	3.201−08	210	211	8.511+04	3.641−02	7.908−08
183	192	6.357+03	8.358+00	5.065−08	210	242	2.301+03	2.756+01	2.188−08
183	211	1.432+03	9.873+01	2.023−08	211	212	7.299+04	4.169−02	4.994−08
184	185	1.031+05	3.001−02	5.976−08	211	239	2.484+03	1.351+01	1.250−08
184	190	6.863+03	2.907+00	2.566−08	211	258	1.323+03	9.316+01	1.222−08
184	192	6.636+03	4.606+00	2.280−08	212	237	2.926+03	7.294+00	1.248−08
184	193	6.668+03	5.261+00	3.507−08	212	255	1.420+03	3.765+01	1.138−08
184	212	1.418+03	7.024+01	1.587−08	213	224	1.090+04	1.390+01	1.650−07
185	188	7.775+03	7.790+00	8.471−08	213	235	4.453+03	6.244+01	1.238−07
185	190	7.353+03	2.250+00	1.824−08	213	246	1.992+03	1.661+02	9.880−08
185	231	1.077+03	1.065+02	1.480−08	214	215	7.330+04	1.071−01	1.294−07
185	279	6.019+02	2.173+02	1.180−08	214	238	3.772+03	5.990+00	1.916−08
186	195	6.502+03	4.062+00	2.575−08	214	259	1.539+03	3.853+01	2.053−08

Table 5. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (M1) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}	i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}
215	218	9.813+04	4.364−02	8.401−08	229	230	6.069+04	4.117−01	1.137−07
215	237	4.342+03	1.011+01	3.812−08	229	232	2.660+04	2.787−01	1.478−08
215	243	3.255+03	9.296+00	1.969−08	229	233	2.125+04	7.318−01	7.433−08
215	254	1.698+03	3.993+01	1.150−08	229	234	1.729+04	9.292−01	4.163−08
215	259	1.572+03	3.517+01	1.303−08	230	234	2.417+04	9.214−01	1.614−07
216	221	2.945+04	5.829−01	5.054−08	231	233	3.936+04	6.910−01	1.204−07
216	228	1.094+04	5.599−01	1.339−08	231	237	9.203+03	8.993−01	1.142−08
216	236	4.503+03	1.775+01	5.398−08	231	243	5.388+03	4.516+00	1.965−08
217	220	4.714+04	2.550−01	7.079−08	232	235	1.734+04	9.770−01	8.810−08
217	248	1.950+03	3.160+01	2.101−08	232	247	2.919+03	4.501+00	1.150−08
217	253	1.755+03	2.742+01	1.267−08	232	287	1.143+03	2.352+02	4.606−08
217	270	1.375+03	4.824+01	1.140−08	233	234	9.265+04	6.272−02	5.381−08
217	279	1.175+03	1.358+02	2.342−08	233	238	9.573+03	1.195+00	1.641−08
218	220	7.114+04	1.327−02	1.258−08	233	244	5.777+03	1.999+00	1.000−08
218	238	4.144+03	5.837+00	1.127−08	234	239	8.363+03	1.039+00	1.090−08
218	240	3.706+03	1.755+01	4.518−08	235	241	9.453+03	1.464+01	9.804−08
218	244	3.226+03	2.209+01	2.585−08	235	246	3.605+03	2.348+01	6.862−08
218	255	1.717+03	3.954+01	1.311−08	235	247	3.510+03	1.856+01	3.429−08
218	261	1.580+03	2.804+01	1.050−08	235	287	1.224+03	7.980+02	8.956−08
219	222	2.887+04	4.408−01	4.405−08	237	238	4.716+04	3.412−01	8.535−08
219	243	3.378+03	3.027+01	4.143−08	237	240	2.011+04	9.193−01	6.965−08
219	267	1.451+03	4.572+01	1.155−08	237	243	1.300+04	1.618+00	4.098−08
220	222	4.630+04	4.231−01	1.088−07	237	267	2.128+03	3.150+01	2.139−08
220	243	3.534+03	1.112+01	1.665−08	238	239	3.860+04	9.685−01	1.442−07
220	256	1.715+03	2.866+01	1.263−08	238	244	1.457+04	1.968+00	6.262−08
221	236	5.316+03	4.397+00	2.794−08	238	265	2.327+03	1.784+01	1.448−08
222	225	3.772+04	9.977−01	1.596−07	239	242	4.944+04	4.928−01	9.030−08
223	226	3.519+04	9.101−01	1.267−07	239	245	2.068+04	1.246+00	7.990−08
223	227	3.045+04	3.752−01	6.519−08	239	265	2.476+03	1.734+01	2.392−08
223	231	1.377+04	4.401−01	1.252−08	240	243	3.674+04	4.595−01	7.440−08
223	237	5.517+03	7.240+00	3.303−08	241	247	5.583+03	3.381+00	3.160−08
224	230	1.851+04	4.850−01	1.245−08	241	287	1.406+03	2.993+02	8.865−08
224	232	1.331+04	1.273+01	1.690−07	242	245	3.554+04	1.816−01	6.877−08
224	235	7.529+03	9.238+00	7.852−08	243	244	7.755+04	1.029−01	6.961−08
224	241	4.191+03	4.456+01	5.867−08	244	245	1.777+05	1.088−02	3.434−08
224	247	2.394+03	1.053+02	9.045−08	246	247	1.336+05	6.231−03	1.112−08
224	287	1.052+03	4.294+02	3.566−08	248	253	1.762+04	6.390+00	2.549−07
225	257	1.818+03	3.249+01	2.147−08	248	271	4.257+03	4.767+00	1.110−08
225	267	1.593+03	2.302+01	1.167−08	249	251	1.954+05	9.969−03	2.854−08
225	274	1.404+03	6.071+01	1.197−08	249	255	1.442+04	2.684−01	1.255−08
225	275	1.403+03	5.142+01	2.022−08	249	260	8.482+03	1.472+00	2.381−08
225	276	1.378+03	5.242+01	1.492−08	249	263	7.795+03	3.836+00	3.495−08
226	229	4.437+04	8.276−01	1.628−07	250	252	4.749+04	1.779−01	8.019−08
226	231	2.263+04	6.559−01	6.716−08	250	260	8.458+03	1.871+00	2.007−08
226	233	1.437+04	8.946−01	2.770−08	251	254	1.649+04	2.417−01	1.971−08
226	238	5.745+03	2.664+00	1.318−08	251	258	9.756+03	2.313+00	3.301−08
227	231	2.515+04	1.414+00	1.072−07	251	263	8.119+03	2.094+00	4.138−08
227	237	6.737+03	1.866+00	1.016−08	251	266	5.864+03	5.909+00	3.046−08
227	240	5.046+03	6.010+00	2.295−08	251	274	3.906+03	3.421+00	1.565−08
228	236	7.655+03	3.187+01	2.100−07	252	260	1.029+04	3.159+00	3.761−08

Table 5. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric dipole (M1) transitions in Co XI with $f \geq 10^{-8}$. ($a\pm b \equiv a\times10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}	i	j	λ_{ij}	A_{ji}^{M1}	f_{ij}^{M1}
253	256	2.883+04	2.237+00	2.323−07	264	271	9.899+03	1.168+00	1.715−08
253	262	1.428+04	4.641−01	1.182−08	264	272	9.135+03	9.981−01	1.041−08
253	272	5.358+03	8.627+00	3.095−08	264	273	9.350+03	2.710+00	4.144−08
253	273	5.432+03	2.235+00	1.153−08	265	267	5.265+04	6.445−02	3.570−08
254	274	5.118+03	7.999+00	3.142−08	265	269	2.116+04	2.277−01	2.037−08
254	276	4.780+03	9.424+00	4.843−08	265	275	9.610+03	2.071+00	3.823−08
255	265	1.128+04	5.691−01	1.086−08	267	269	3.537+04	1.632−01	3.061−08
255	278	4.353+03	1.340+01	5.077−08	267	270	3.345+04	2.748−01	5.762−08
256	257	6.745+04	1.410−01	7.693−08	267	278	8.190+03	1.586+00	1.594−08
256	261	2.811+04	4.107−01	3.893−08	268	277	9.753+03	1.915+01	1.365−07
256	269	8.260+03	1.295+00	1.060−08	269	272	3.240+04	2.833−01	5.573−08
256	271	6.970+03	2.629+00	2.298−08	269	275	1.761+04	1.791+00	8.323−08
257	259	7.255+04	2.950−02	1.746−08	270	271	4.811+04	1.730−01	7.202−08
257	261	4.821+04	5.963−02	2.078−08	270	272	3.420+04	6.522−02	1.143−08
257	262	4.876+04	7.059−02	3.145−08	270	279	8.064+03	2.087+00	2.035−08
258	263	4.837+04	1.013−01	7.108−08	270	286	3.952+03	4.293+00	1.005−08
258	266	1.470+04	5.642−01	1.827−08	271	272	1.182+05	1.840−02	3.215−08
259	261	1.437+05	8.513−03	3.513−08	271	273	1.686+05	5.888−03	2.927−08
259	265	2.213+04	1.585−01	1.163−08	272	275	3.856+04	4.239−01	7.562−08
259	267	1.558+04	6.861−01	3.329−08	272	279	1.055+04	6.086−01	1.016−08
259	269	1.082+04	1.935+00	4.525−08	272	286	4.469+03	5.321+00	1.593−08
260	263	9.630+04	2.895−02	2.683−08	274	276	7.236+04	1.054−01	1.241−07
260	285	2.943+03	6.654+00	1.152−08	275	278	2.700+04	2.494−01	2.726−08
261	269	1.170+04	1.853+00	3.800−08	275	279	1.453+04	4.782−01	1.891−08
261	270	1.148+04	8.495−01	2.097−08	275	286	5.054+03	2.262+00	1.083−08
261	286	2.940+03	1.532+01	2.481−08	276	278	4.146+04	5.070−01	1.742−07
262	264	1.404+05	9.902−03	3.509−08	278	279	3.146+04	7.816−01	1.449−07
262	267	1.740+04	5.202−01	1.890−08	280	281	6.705+04	9.466−02	1.276−07
262	269	1.166+04	6.949−01	1.134−08	280	282	2.015+04	1.092+00	1.329−07
262	270	1.145+04	1.111+00	2.183−08	281	283	2.157+04	2.395+00	2.505−07
262	272	8.576+03	1.178+00	1.299−08	282	283	8.584+04	2.009−02	3.328−08
262	286	2.938+03	2.048+01	2.651−08	282	284	1.653+04	4.518+00	9.252−08
263	266	2.111+04	2.355+00	7.867−08	283	285	1.917+04	3.225+00	2.368−07

Table 6. Wavelengths (λ_{ij} in $\AA$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (M2) transitions in Co XI with $f \geq 10^{-10}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}	i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}
1	3	3.202+02	3.871+01	2.975−10	5	54	2.320+02	7.564+01	9.157−10
1	5	2.372+02	7.577+01	1.278−09	5	63	2.085+02	4.521+01	2.946−10
1	9	2.186+02	1.213+02	4.346−10	5	66	2.073+02	4.429+01	1.427−10
1	14	2.112+02	3.840+01	2.567−10	5	88	1.891+02	4.801+01	1.931−10
1	17	2.075+02	1.570+01	2.027−10	5	98	1.805+02	3.180+01	1.941−10
1	18	2.074+02	6.553+01	6.340−10	5	127	1.650+02	5.567+01	3.407−10
1	21	2.023+02	1.365+01	1.675−10	5	134	1.629+02	5.101+01	1.522−10
1	25	1.787+02	2.482+01	1.188−10	5	144	1.552+02	5.284+01	1.909−10
1	26	1.769+02	3.168+01	2.230−10	5	151	1.528+02	1.006+02	3.522−10
1	28	1.610+02	1.113+02	4.328−10	5	228	1.247+02	5.093+01	1.187−10
1	213	8.254+01	1.367+03	2.094−09	6	52	2.338+02	2.058+01	3.373−10
1	224	8.192+01	3.097+02	3.116−10	6	55	2.284+02	1.865+01	2.188−10
1	232	8.142+01	4.421+02	2.197−10	6	58	2.205+02	1.055+01	1.154−10
1	235	8.104+01	1.890+02	1.861−10	6	62	2.098+02	5.681+01	1.874−10
1	241	8.035+01	3.771+02	1.825−10	6	63	2.091+02	1.822+01	2.388−10
1	246	7.926+01	3.443+02	4.864−10	6	64	2.087+02	1.581+01	1.033−10
1	287	7.601+01	9.433+02	4.085−10	6	67	2.076+02	3.474+01	1.122−10
2	4	2.486+02	1.286+01	3.577−10	6	75	2.027+02	1.402+01	1.728−10
2	12	2.233+02	1.874+01	2.802−10	6	81	1.931+02	4.509+01	2.521−10
2	16	2.170+02	8.286+01	1.170−09	6	103	1.765+02	5.559+01	1.299−10
2	18	2.161+02	1.312+01	2.754−10	6	110	1.742+02	1.936+01	1.322−10
2	19	2.146+02	9.949+01	2.060−09	6	130	1.641+02	3.510+01	2.836−10
2	22	2.089+02	1.499+01	2.942−10	6	132	1.638+02	2.172+01	1.311−10
2	23	1.964+02	7.754+00	1.345−10	6	228	1.249+02	2.436+01	1.139−10
2	25	1.851+02	1.551+01	1.593−10	6	236	1.229+02	5.635+01	1.913−10
2	213	8.388+01	1.415+02	4.476−10	7	37	2.946+02	2.951+00	1.152−10
2	224	8.324+01	3.525+02	7.322−10	7	44	2.603+02	3.864+00	1.178−10
2	235	8.233+01	5.890+02	1.197−09	7	51	2.352+02	7.512+00	1.869−10
2	246	8.049+01	9.677+02	2.819−09	7	55	2.295+02	1.357+01	3.213−10
3	33	2.426+02	1.471+01	2.596−10	7	57	2.217+02	9.682+00	1.427−10
3	34	2.394+02	1.002+02	2.581−09	7	64	2.096+02	3.897+01	5.133−10
3	44	2.013+02	2.294+01	4.181−10	7	65	2.096+02	2.908+01	5.749−10
3	45	1.993+02	8.583+01	1.022−09	7	73	2.051+02	1.483+01	2.804−10
3	46	1.973+02	1.401+01	2.451−10	7	81	1.939+02	1.199+01	1.352−10
3	48	1.902+02	5.731+01	6.215−10	7	82	1.939+02	6.290+00	1.064−10
3	60	1.724+02	2.167+01	1.932−10	7	102	1.774+02	1.171+01	1.105−10
3	61	1.718+02	1.278+01	1.697−10	7	107	1.755+02	1.231+01	1.136−10
4	43	2.609+02	8.523+00	1.160−10	7	108	1.752+02	1.176+01	1.623−10
4	47	2.457+02	4.943+01	1.491−10	7	110	1.749+02	1.153+01	1.586−10
4	53	2.325+02	4.379+01	5.916−10	7	132	1.643+02	3.270+01	3.971−10
4	56	2.252+02	1.088+01	1.103−10	7	236	1.232+02	5.027+01	3.430−10
4	62	2.091+02	5.568+01	1.217−10	8	35	3.307+02	1.140+01	1.868−10
4	65	2.081+02	3.006+01	1.952−10	8	54	2.515+02	1.181+01	1.343−10
4	81	1.926+02	4.486+01	1.663−10	8	56	2.436+02	1.443+01	1.027−10
4	128	1.647+02	3.542+01	2.400−10	8	61	2.276+02	4.784+01	2.229−10
4	130	1.638+02	2.428+01	1.301−10	8	72	2.193+02	1.436+01	1.036−10
4	145	1.542+02	4.290+01	1.530−10	8	79	2.077+02	2.065+01	1.068−10
4	228	1.246+02	4.779+01	1.484−10	8	120	1.791+02	3.456+01	1.662−10
5	34	3.241+02	9.052+00	1.069−10	8	136	1.713+02	4.059+01	1.785−10
5	48	2.401+02	6.936+01	2.997−10	8	144	1.637+02	4.291+01	1.379−10

Table 6. Wavelengths (λ_{ij} in $\AA$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (M2) transitions in Co XI with $f \geq 10^{-10}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}	i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}
8	155	1.599+02	1.698+02	6.508−10	12	71	2.267+02	1.184+01	1.368−10
9	44	2.844+02	6.035+00	2.195−10	12	77	2.148+02	8.788+00	1.216−10
9	46	2.764+02	4.370+00	1.502−10	12	82	2.112+02	1.178+01	1.181−10
9	55	2.480+02	7.391+00	2.044−10	12	95	1.978+02	1.436+01	1.264−10
9	66	2.240+02	4.290+01	6.452−10	12	99	1.944+02	1.981+01	1.123−10
9	71	2.219+02	1.553+01	3.439−10	12	100	1.937+02	5.386+01	1.515−10
9	82	2.069+02	2.534+01	4.881−10	12	102	1.918+02	1.893+01	1.043−10
9	102	1.883+02	1.165+01	1.238−10	12	109	1.890+02	1.355+01	1.451−10
9	104	1.876+02	1.584+01	2.507−10	12	112	1.883+02	2.025+01	1.076−10
9	114	1.838+02	8.008+00	1.217−10	12	113	1.872+02	1.464+01	1.539−10
9	122	1.772+02	2.241+01	3.164−10	12	123	1.798+02	1.705+01	1.654−10
9	141	1.666+02	1.115+01	1.392−10	12	138	1.728+02	2.858+01	2.559−10
9	142	1.657+02	1.443+01	1.187−10	12	203	1.399+02	3.502+01	1.028−10
9	157	1.583+02	4.611+01	5.196−10	13	70	2.270+02	2.870+01	4.434−10
9	167	1.558+02	2.589+01	2.826−10	13	71	2.270+02	3.279+01	3.800−10
9	200	1.388+02	2.238+01	1.940−10	13	79	2.133+02	8.729+00	1.191−10
9	216	1.321+02	4.942+01	3.877−10	13	89	2.051+02	1.397+01	1.323−10
9	221	1.315+02	2.121+01	1.099−10	13	90	2.046+02	1.140+01	1.432−10
10	36	3.339+02	6.897+00	1.153−10	13	100	1.939+02	4.203+01	1.185−10
10	53	2.562+02	8.371+00	1.030−10	13	109	1.892+02	1.867+01	2.004−10
10	55	2.503+02	1.634+01	1.151−10	13	116	1.865+02	1.032+01	1.076−10
10	60	2.320+02	3.212+01	1.296−10	13	138	1.730+02	6.850+01	6.146−10
10	70	2.237+02	1.911+01	1.433−10	14	43	3.019+02	4.977+00	1.361−10
10	74	2.210+02	3.973+01	4.365−10	14	73	2.278+02	1.433+01	1.672−10
10	80	2.102+02	1.022+01	1.016−10	14	75	2.259+02	2.083+01	3.188−10
10	110	1.867+02	3.073+01	1.204−10	14	79	2.160+02	1.946+01	2.723−10
10	115	1.844+02	1.649+01	1.051−10	14	92	2.036+02	1.083+01	1.346−10
10	116	1.842+02	2.478+01	1.261−10	14	96	2.001+02	1.293+01	1.553−10
10	127	1.765+02	1.643+01	1.150−10	14	107	1.918+02	1.976+01	1.090−10
10	136	1.731+02	5.706+01	3.204−10	14	114	1.894+02	5.275+01	4.257−10
10	145	1.643+02	3.849+01	1.168−10	14	151	1.660+02	1.253+01	1.035−10
10	146	1.639+02	6.819+01	1.373−10	14	158	1.624+02	5.297+01	4.187−10
10	156	1.599+02	8.587+01	3.290−10	14	160	1.616+02	5.207+01	1.020−10
11	55	2.533+02	1.243+01	1.196−10	14	167	1.598+02	3.006+01	1.726−10
11	68	2.271+02	1.312+01	1.014−10	14	228	1.333+02	2.797+01	1.490−10
11	72	2.247+02	4.217+01	5.321−10	15	58	2.483+02	1.922+01	5.329−10
11	78	2.133+02	1.557+01	1.771−10	15	60	2.389+02	1.765+01	3.020−10
11	89	2.045+02	2.873+01	1.801−10	15	95	2.004+02	7.937+00	1.434−10
11	91	2.022+02	1.556+01	1.589−10	15	97	2.000+02	1.832+01	2.197−10
11	112	1.879+02	3.057+01	1.079−10	15	99	1.969+02	1.833+01	2.131−10
11	113	1.868+02	1.565+01	1.092−10	15	112	1.907+02	2.328+01	2.538−10
11	136	1.746+02	3.188+01	2.427−10	15	114	1.895+02	8.014+00	1.294−10
11	138	1.725+02	6.102+01	3.630−10	15	119	1.851+02	1.656+01	1.701−10
11	147	1.651+02	1.102+02	1.502−10	15	121	1.844+02	2.519+01	3.852−10
11	158	1.604+02	2.224+01	1.144−10	15	150	1.664+02	2.015+01	2.510−10
11	161	1.597+02	3.791+01	1.450−10	15	152	1.657+02	3.186+01	2.621−10
12	44	2.924+02	5.460+00	1.050−10	15	159	1.623+02	1.347+01	1.064−10
12	63	2.303+02	8.624+00	1.372−10	15	198	1.428+02	3.976+01	2.430−10
12	68	2.276+02	2.854+01	3.327−10	15	221	1.343+02	3.761+01	2.035−10
12	70	2.267+02	7.530+00	1.160−10	16	59	2.521+02	1.057+01	2.015−10

Table 6. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (M2) transitions in Co XI with $f \geq 10^{-10}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}	i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}
16	60	2.426+02	1.458+01	1.287−10	20	83	2.239+02	3.427+01	3.607−10
16	61	2.414+02	1.169+01	1.532−10	20	91	2.144+02	3.098+01	2.134−10
16	65	2.371+02	9.013+00	1.139−10	20	94	2.111+02	3.794+01	3.041−10
16	95	2.031+02	1.147+01	1.063−10	20	105	2.016+02	2.147+01	1.831−10
16	104	1.959+02	1.625+01	1.403−10	20	148	1.731+02	5.971+01	3.220−10
16	106	1.944+02	5.286+01	2.996−10	20	149	1.729+02	2.954+01	1.059−10
16	110	1.935+02	1.227+01	1.034−10	20	171	1.634+02	4.220+01	1.351−10
16	113	1.919+02	1.018+01	1.123−10	20	187	1.544+02	1.801+02	6.440−10
16	117	1.893+02	2.799+01	3.007−10	21	55	2.729+02	1.261+01	1.057−10
16	118	1.879+02	4.124+01	1.091−10	21	60	2.513+02	2.448+01	1.159−10
16	123	1.841+02	3.384+01	3.441−10	21	72	2.400+02	9.897+00	1.069−10
16	149	1.688+02	1.850+01	1.581−10	21	86	2.224+02	2.430+01	2.254−10
16	198	1.441+02	7.032+01	2.189−10	21	87	2.210+02	8.818+01	9.683−10
16	200	1.433+02	2.469+01	1.141−10	21	98	2.078+02	1.417+01	1.146−10
16	221	1.355+02	4.378+01	1.205−10	21	127	1.874+02	2.692+01	2.127−10
17	82	2.180+02	2.120+01	1.133−10	21	140	1.786+02	1.707+01	1.021−10
17	86	2.165+02	2.500+01	2.196−10	21	148	1.732+02	3.935+01	2.655−10
17	101	1.976+02	1.773+01	1.557−10	21	158	1.681+02	2.765+01	1.171−10
17	113	1.926+02	1.833+01	1.019−10	21	165	1.659+02	2.992+01	1.544−10
17	127	1.832+02	9.950+01	7.509−10	22	55	2.757+02	9.544+00	1.087−10
17	128	1.829+02	2.252+01	1.412−10	22	56	2.721+02	1.163+01	1.722−10
17	148	1.696+02	3.290+01	2.127−10	22	79	2.280+02	1.122+01	1.166−10
17	186	1.517+02	2.944+01	1.016−10	22	82	2.259+02	2.207+01	1.688−10
17	228	1.348+02	7.464+01	2.033−10	22	86	2.243+02	1.068+01	1.342−10
18	59	2.534+02	8.498+00	1.091−10	22	113	1.987+02	2.684+01	2.118−10
18	63	2.386+02	3.105+01	3.534−10	22	128	1.884+02	3.199+01	2.837−10
18	75	2.304+02	1.035+01	1.098−10	22	130	1.872+02	2.806+01	1.966−10
18	76	2.285+02	1.352+01	1.764−10	22	140	1.798+02	6.304+01	5.091−10
18	88	2.135+02	3.817+01	2.610−10	22	158	1.691+02	3.017+01	1.724−10
18	98	2.026+02	1.673+01	1.716−10	22	165	1.669+02	6.455+01	4.494−10
18	107	1.950+02	5.325+01	2.025−10	22	236	1.353+02	4.738+01	1.301−10
18	115	1.919+02	1.154+01	1.062−10	23	93	2.285+02	1.316+01	1.718−10
18	117	1.900+02	1.437+01	1.037−10	23	116	2.104+02	2.468+01	2.183−10
18	165	1.626+02	3.373+01	2.229−10	23	120	2.063+02	1.284+01	1.365−10
19	61	2.445+02	1.298+01	1.163−10	23	136	1.959+02	7.357+01	7.058−10
19	63	2.404+02	1.614+01	1.865−10	23	138	1.934+02	1.729+01	1.292−10
19	71	2.365+02	2.279+01	1.911−10	23	165	1.759+02	2.369+01	1.831−10
19	76	2.302+02	4.999+01	6.617−10	23	177	1.692+02	2.190+01	1.253−10
19	88	2.150+02	4.026+01	2.790−10	24	56	3.012+02	7.373+00	1.003−10
19	93	2.080+02	9.599+00	1.037−10	24	76	2.589+02	1.279+01	1.606−10
19	104	1.979+02	3.074+01	1.805−10	24	87	2.419+02	9.683+00	1.274−10
19	106	1.964+02	2.942+01	1.134−10	24	93	2.311+02	2.377+01	2.380−10
19	111	1.953+02	1.052+02	2.005−10	24	94	2.302+02	1.688+01	2.012−10
19	115	1.930+02	3.661+01	3.408−10	24	135	1.992+02	1.837+01	1.092−10
19	117	1.912+02	1.488+01	1.087−10	24	141	1.907+02	7.535+01	3.080−10
19	141	1.746+02	2.280+01	1.042−10	24	148	1.858+02	2.237+01	1.736−10
19	165	1.635+02	3.598+01	2.402−10	24	167	1.767+02	3.658+01	1.284−10
19	200	1.444+02	9.104+01	2.846−10	24	200	1.552+02	5.752+01	1.558−10
20	61	2.498+02	2.024+01	1.136−10	25	116	2.251+02	1.549+01	2.353−10
20	74	2.383+02	1.700+01	1.738−10	25	122	2.164+02	3.649+01	3.842−10

Table 6. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (M2) transitions in Co XI with $f \geq 10^{-10}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}	i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}
25	123	2.158+02	9.835+00	1.373−10	30	98	2.891+02	8.696+00	1.817−10
25	124	2.150+02	4.073+01	2.823−10	30	136	2.445+02	7.282+00	1.087−10
25	126	2.141+02	7.582+01	2.606−10	30	151	2.241+02	1.429+01	1.435−10
25	135	2.101+02	1.879+01	2.488−10	30	155	2.219+02	1.592+01	1.960−10
25	141	2.007+02	1.169+01	1.059−10	30	160	2.163+02	6.771+01	1.583−10
25	167	1.853+02	1.731+01	1.336−10	30	169	2.108+02	4.256+01	1.889−10
25	171	1.830+02	1.042+01	1.046−10	30	194	1.906+02	1.844+01	1.004−10
25	177	1.786+02	8.951+01	8.559−10	30	200	1.825+02	2.733+01	1.365−10
26	104	2.351+02	2.019+01	1.673−10	30	268	1.525+02	1.214+02	2.821−10
26	117	2.257+02	2.354+01	2.396−10	31	138	2.503+02	8.205+00	1.541−10
26	120	2.232+02	2.794+01	3.477−10	31	170	2.179+02	1.415+01	1.510−10
26	125	2.172+02	3.579+01	2.532−10	31	173	2.160+02	6.822+01	2.386−10
26	141	2.030+02	2.420+01	1.495−10	31	174	2.160+02	4.919+01	3.440−10
26	163	1.884+02	6.172+01	1.094−10	31	175	2.150+02	1.664+01	1.729−10
26	164	1.883+02	5.101+01	1.807−10	31	179	2.075+02	1.454+01	1.407−10
26	177	1.804+02	6.900+01	4.488−10	31	180	2.074+02	1.708+01	1.102−10
26	179	1.776+02	2.137+01	1.011−10	31	194	1.967+02	2.738+01	2.382−10
27	85	2.864+02	8.135+00	2.001−10	31	195	1.960+02	2.811+01	3.236−10
27	134	2.268+02	4.765+01	1.102−09	32	178	2.481+02	2.541+01	7.032−10
27	137	2.228+02	3.247+01	4.833−10	32	183	2.435+02	2.081+01	5.549−10
27	157	2.022+02	5.766+00	1.060−10	32	196	2.269+02	3.776+01	5.830−10
27	169	1.962+02	9.338+00	1.078−10	32	211	2.081+02	2.884+01	3.745−10
27	172	1.947+02	2.051+01	3.495−10	32	212	2.075+02	9.632+00	1.865−10
27	216	1.613+02	3.763+01	4.403−10	32	214	2.034+02	1.024+01	1.270−10
27	221	1.604+02	4.233+01	3.266−10	32	249	1.834+02	2.352+01	2.370−10
28	85	3.098+02	9.001+00	1.295−10	32	250	1.834+02	2.437+01	3.684−10
28	134	2.412+02	1.411+01	1.846−10	32	254	1.812+02	2.612+01	2.571−10
28	149	2.215+02	1.075+01	1.582−10	32	260	1.795+02	7.917+00	1.147−10
28	151	2.198+02	1.293+01	1.872−10	33	178	2.500+02	3.508+01	4.930−10
28	156	2.147+02	8.039+00	1.111−10	33	184	2.449+02	4.368+01	7.858−10
28	159	2.134+02	2.101+01	1.434−10	33	196	2.286+02	3.932+01	3.079−10
28	168	2.088+02	4.640+01	1.517−10	33	197	2.268+02	1.731+01	2.001−10
28	171	2.061+02	7.937+00	1.011−10	33	210	2.100+02	4.283+01	1.415−10
28	172	2.052+02	1.400+01	1.326−10	33	211	2.094+02	4.110+01	2.703−10
28	176	2.014+02	2.736+01	1.663−10	33	212	2.088+02	1.650+01	1.619−10
28	208	1.746+02	5.876+01	1.342−10	33	251	1.842+02	4.332+01	1.102−10
28	216	1.684+02	7.072+01	4.513−10	33	254	1.822+02	5.112+01	2.544−10
28	228	1.659+02	3.363+01	2.775−10	33	255	1.821+02	1.883+01	1.404−10
29	131	2.468+02	8.917+00	1.629−10	34	178	2.536+02	1.994+01	1.922−10
29	150	2.240+02	6.579+00	1.485−10	34	185	2.478+02	7.325+01	1.124−09
29	159	2.166+02	9.986+00	1.405−10	34	197	2.297+02	2.835+01	2.243−10
29	167	2.121+02	9.358+00	1.894−10	34	212	2.113+02	1.331+02	8.911−10
29	172	2.082+02	1.052+01	2.050−10	34	219	2.060+02	1.005+01	1.066−10
29	174	2.078+02	1.266+01	1.640−10	34	227	2.030+02	3.484+01	3.589−10
29	176	2.042+02	3.026+01	3.784−10	34	255	1.840+02	4.488+01	2.277−10
29	179	1.999+02	1.306+01	2.348−10	34	263	1.820+02	4.370+01	1.447−10
29	209	1.748+02	1.659+01	1.520−10	34	266	1.804+02	2.058+02	3.348−10
29	216	1.705+02	1.945+01	2.542−10	34	285	1.717+02	2.117+01	1.247−10
29	236	1.642+02	1.407+01	1.708−10	35	188	2.569+02	3.115+01	3.699−10
30	84	3.197+02	2.389+01	1.220−10	35	197	2.451+02	6.873+01	3.713−10

Table 6. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (M2) transitions in Co XI with $f \geq 10^{-10}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}	i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}
35	199	2.390+02	3.066+01	3.675−10	40	259	2.067+02	7.353+00	1.413−10
35	238	2.074+02	2.749+01	1.063−10	40	263	2.061+02	8.824+00	1.123−10
35	240	2.062+02	3.453+01	2.201−10	40	274	2.006+02	2.102+01	2.536−10
35	248	1.966+02	2.757+01	2.237−10	40	276	2.000+02	5.966+01	1.073−09
35	255	1.937+02	5.069+01	1.710−10	40	281	1.967+02	1.033+01	1.199−10
36	188	2.591+02	7.124+00	1.076−10	40	283	1.949+02	7.454+00	1.274−10
36	190	2.586+02	1.881+01	2.357−10	41	184	2.960+02	8.430+00	1.477−10
36	196	2.492+02	4.150+01	1.932−10	41	238	2.249+02	2.160+01	1.638−10
36	202	2.388+02	2.571+01	3.296−10	41	250	2.120+02	1.807+01	1.217−10
36	217	2.202+02	3.935+01	4.292−10	41	262	2.067+02	1.355+01	1.447−10
36	222	2.182+02	1.727+01	1.233−10	41	263	2.063+02	2.624+01	1.117−10
36	239	2.077+02	4.723+01	1.527−10	41	276	2.003+02	2.548+01	1.532−10
36	249	1.976+02	4.035+01	1.181−10	41	279	1.981+02	5.502+01	5.393−10
36	253	1.957+02	2.004+01	1.726−10	42	183	2.968+02	7.186+00	1.423−10
36	264	1.928+02	1.517+01	1.268−10	42	184	2.962+02	5.503+00	1.448−10
37	193	2.608+02	1.376+01	1.871−10	42	233	2.304+02	1.596+01	1.905−10
37	196	2.515+02	2.090+01	1.321−10	42	234	2.298+02	1.588+01	1.257−10
37	204	2.394+02	1.521+01	2.178−10	42	258	2.073+02	3.515+01	1.132−10
37	214	2.229+02	3.242+01	1.609−10	42	261	2.068+02	1.191+01	1.527−10
37	218	2.217+02	1.252+01	1.230−10	42	274	2.009+02	5.780+01	3.498−10
37	219	2.216+02	9.304+00	1.142−10	42	278	1.994+02	6.294+01	7.502−10
37	220	2.210+02	3.851+01	4.699−10	42	283	1.952+02	1.413+01	1.212−10
37	225	2.187+02	2.801+01	2.008−10	43	196	2.799+02	2.603+01	1.529−10
37	242	2.084+02	5.385+01	1.169−10	43	217	2.439+02	5.694+01	7.617−10
37	245	2.072+02	2.434+01	1.044−10	43	220	2.426+02	2.098+01	2.314−10
37	251	1.988+02	5.692+01	1.125−10	43	265	2.093+02	5.473+01	2.695−10
37	256	1.958+02	1.507+01	1.443−10	43	282	1.994+02	5.812+01	1.732−10
37	262	1.944+02	3.253+01	3.072−10	44	197	2.806+02	1.422+01	1.679−10
38	191	2.632+02	1.379+01	1.432−10	44	218	2.461+02	8.659+00	1.048−10
38	192	2.631+02	1.034+01	1.609−10	44	219	2.460+02	1.375+01	2.080−10
38	205	2.403+02	6.286+00	1.088−10	44	220	2.452+02	2.359+01	3.545−10
38	214	2.246+02	2.067+01	1.563−10	44	237	2.334+02	1.409+01	1.534−10
38	215	2.239+02	1.828+01	2.060−10	44	243	2.293+02	1.206+01	1.267−10
38	222	2.216+02	3.413+01	5.025−10	44	252	2.175+02	1.241+01	1.174−10
38	225	2.203+02	2.677+01	2.922−10	44	255	2.152+02	2.093+01	1.453−10
38	244	2.089+02	2.461+01	2.416−10	45	218	2.492+02	1.087+01	2.024−10
38	245	2.087+02	2.659+01	1.736−10	45	263	2.149+02	3.320+01	2.297−10
38	259	1.960+02	1.613+01	1.393−10	45	267	2.126+02	7.542+00	1.022−10
38	261	1.957+02	5.082+01	5.836−10	45	275	2.089+02	1.127+01	1.474−10
38	275	1.904+02	1.316+01	1.430−10	46	219	2.523+02	1.140+01	1.814−10
39	185	2.934+02	1.152+01	1.858−10	46	255	2.201+02	1.670+01	1.213−10
39	188	2.827+02	1.166+01	2.095−10	46	265	2.158+02	3.417+01	2.386−10
39	197	2.684+02	2.338+01	1.893−10	46	270	2.136+02	2.417+01	2.755−10
39	237	2.249+02	3.063+01	2.323−10	46	272	2.123+02	1.396+01	1.571−10
39	240	2.224+02	1.604+01	1.487−10	46	276	2.105+02	2.225+01	1.478−10
39	252	2.101+02	3.044+01	2.014−10	46	278	2.095+02	1.565+01	1.372−10
40	182	2.964+02	7.777+00	2.049−10	46	279	2.081+02	1.042+01	1.127−10
40	183	2.960+02	4.418+00	1.741−10	46	284	2.029+02	1.169+02	2.404−10
40	233	2.300+02	6.126+00	1.457−10	47	211	2.677+02	1.489+01	3.200−10
40	234	2.294+02	2.827+01	4.460−10	47	212	2.668+02	6.268+00	2.006−10

Table 6. Wavelengths (λ_{ij} in $\mathring{A}$), radiative rates (A_{ji} in s^{-1}) and oscillator strengths (f_{ij}, dimensionless) for electric quadrupole (M2) transitions in Co XI with $f \geq 10^{-10}$. ($a\pm b \equiv a\times 10^{\pm b}$).

i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}	i	j	λ_{ij}	A_{ji}^{M2}	f_{ij}^{M2}
47	255	2.246+02	3.403+01	7.719−10	61	279	2.466+02	8.436+00	1.282−10
47	282	2.093+02	8.512+00	1.118−10	61	284	2.393+02	5.488+01	1.571−10
48	212	2.738+02	1.097+01	1.849−10	62	249	2.724+02	5.716+00	1.272−10
48	255	2.296+02	2.617+01	3.102−10	62	282	2.460+02	5.676+00	1.030−10
48	258	2.276+02	5.010+01	1.945−10	66	250	2.757+02	6.598+00	1.127−10
48	266	2.241+02	3.083+01	1.161−10	67	238	2.986+02	4.534+00	1.818−10
49	206	2.980+02	2.902+00	1.159−10	67	239	2.963+02	4.176+00	1.099−10
49	225	2.688+02	3.108+00	1.010−10	68	286	2.461+02	6.937+00	1.050−10
55	215	2.827+02	8.813+00	1.056−10	69	261	2.694+02	4.849+00	1.055−10
55	262	2.392+02	8.902+00	1.273−10	77	286	2.630+02	9.423+00	1.222−10
55	270	2.343+02	8.885+00	1.219−10	78	286	2.646+02	1.504+01	1.578−10
55	272	2.327+02	1.280+01	1.732−10	82	267	2.909+02	6.991+00	1.182−10
55	275	2.313+02	1.132+01	1.211−10	83	273	2.861+02	1.291+01	1.585−10
55	286	2.212+02	1.997+01	2.442−10	84	283	2.742+02	6.252+00	2.114−10
56	240	2.653+02	1.585+01	2.089−10	85	285	2.712+02	1.349+01	2.975−10
57	226	2.888+02	7.853+00	1.473−10	89	286	2.796+02	8.827+00	1.724−10
60	263	2.582+02	1.031+01	1.030−10	100	260	3.386+02	3.412+00	1.760−10
61	252	2.670+02	8.710+00	1.241−10	100	281	3.131+02	3.551+00	1.044−10