

4. PRODUCTION AND PROPERTIES OF RADIATIONS

Table 4.4.5.9. $\langle j_4 \rangle$ form factors for 3d atoms and their ions

Atom or ion	<i>A</i>	<i>a</i>	<i>B</i>	<i>b</i>	<i>C</i>	<i>c</i>	<i>D</i>	<i>e</i>
Sc	1.3420	10.200	0.3837	3.079	0.0468	0.118	-0.0328	0.1343
Sc ⁺	7.1167	15.487	-6.6671	18.269	0.4900	2.992	0.0047	0.1624
Sc ²⁺	-1.6684	15.648	1.7742	9.062	0.4075	2.412	0.0042	0.1105
Ti	-2.1515	11.271	2.5149	8.859	0.3555	2.149	0.0045	0.1244
Ti ⁺	-1.0383	16.190	1.4699	8.924	0.3631	2.283	0.0044	0.1270
Ti ²⁺	-1.3242	15.310	1.2042	7.899	0.3976	2.156	0.0051	0.0820
Ti ³⁺	-1.1117	14.635	0.7689	6.927	0.4385	2.089	0.0060	0.0572
V	-0.9633	15.273	0.9274	7.732	0.3891	2.053	0.0063	0.0840
V ⁺	-0.9606	15.545	1.1278	8.118	0.3653	2.097	0.0056	0.1027
V ²⁺	-1.1729	14.973	0.9092	7.613	0.4105	2.039	0.0067	0.0719
V ³⁺	-0.9417	14.205	0.5284	6.607	0.4411	1.967	0.0076	0.0569
V ⁴⁺	-0.7654	13.097	0.3071	5.674	0.4476	1.871	0.0081	0.0518
Cr	-0.6670	19.613	0.5342	6.478	0.3641	1.905	0.0073	0.0628
Cr ⁺	-0.8309	18.043	0.7252	7.531	0.3828	2.003	0.0073	0.0781
Cr ²⁺	-0.8930	15.664	0.5590	7.033	0.4093	1.924	0.0081	0.0631
Cr ³⁺	-0.7327	14.073	0.3268	5.674	0.4114	1.810	0.0085	0.0505
Cr ⁴⁺	-0.6748	12.946	0.1805	6.753	0.4526	1.800	0.0098	0.0644
Mn	-0.5452	15.471	0.4406	4.902	0.2884	1.543	0.0059	0.0488
Mn ⁺	-0.7947	17.867	0.6078	7.704	0.3798	1.905	0.0087	0.0737
Mn ²⁺	-0.7416	15.255	0.3831	6.469	0.3935	1.800	0.0093	0.0577
Mn ³⁺	-0.6603	13.607	0.2322	6.218	0.4104	1.740	0.0101	0.0579
Mn ⁴⁺	-0.5127	13.461	0.0313	7.763	0.4282	1.701	0.0113	0.0693
Fe	-0.5029	19.677	0.2999	3.776	0.2576	1.424	0.0071	0.0292
Fe ⁺	-0.5109	19.250	0.3896	4.891	0.2810	1.526	0.0069	0.0375
Fe ²⁺	-0.5401	17.227	0.2865	3.742	0.2658	1.424	0.0076	0.0278
Fe ³⁺	-0.5507	11.493	0.2153	4.906	0.3468	1.523	0.0095	0.0314
Fe ⁴⁺	-0.5352	9.507	0.1783	5.175	0.3584	1.469	0.0097	0.0360
Co	-0.4221	14.195	0.2900	3.979	0.2469	1.286	0.0063	0.0400
Co ⁺	-0.4115	14.561	0.3580	4.717	0.2644	1.418	0.0074	0.0541
Co ²⁺	0.4759	14.046	0.2747	3.731	0.2458	1.250	0.0057	0.0282
Co ³⁺	-0.4466	13.391	0.1419	3.011	0.2773	1.335	0.0093	0.0341
Co ⁴⁺	-0.4091	13.194	-0.0194	3.417	0.3534	1.421	0.0112	0.0622
Ni	-0.4428	14.485	0.0870	3.234	0.2932	1.331	0.0096	0.0554
Ni ⁺	-0.3836	13.425	0.3116	4.462	0.2471	1.309	0.0079	0.0515
Ni ²⁺	-0.3803	10.403	0.2838	3.378	0.2108	1.104	0.0050	0.0474
Ni ³⁺	-0.4014	9.046	0.2314	3.075	0.2192	1.084	0.0060	0.0323
Ni ⁴⁺	-0.3509	8.157	0.2220	2.106	0.1567	0.925	0.0065	0.0352
Cu	-0.3204	15.132	0.2335	4.021	0.2312	1.196	0.0068	0.0457
Cu ⁺	-0.3572	15.125	0.2336	3.966	0.2315	1.197	0.0070	0.0397
Cu ²⁺	-0.3914	14.740	0.1275	3.384	0.2548	1.255	0.0103	0.0394
Cu ³⁺	-0.3671	14.082	-0.0078	3.315	0.3154	1.377	0.0132	0.0534
Cu ⁴⁺	-0.2915	14.124	-0.1065	4.201	0.3247	1.352	0.0148	0.0579