Table 4.2.6.8. *Dispersion corrections for forward scattering*

Wavelength (Å)		2.748510	2.289620	1.935970	1.788965	1.540520	0.709260	0.559360	0.215947	0.209010	0.180195
Li	f' =	0.0035	0.0023	0.0015	0.0013	0.0008	−0.0003	−0.0004	−0.0006	−0.0006	−0.0006
	f'' =	0.0013	0.0008	0.0006	0.0005	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000
Be	f' =	0.0117	0.0083	0.0060	0.0052	0.0038	0.0005	0.0001	−0.0005	−0.0005	−0.0005
	f'' =	0.0050	0.0033	0.0023	0.0019	0.0014	0.0002	0.0001	0.0000	0.0000	0.0000
B	f' =	0.0263	0.0190	0.0140	0.0121	0.0090	0.0013	0.0004	−0.0009	−0.0009	−0.0010
	f'' =	0.0139	0.0094	0.0065	0.0055	0.0039	0.0007	0.0004	0.0000	0.0000	0.0000
C	f' =	0.0490	0.0364	0.0273	0.0237	0.0181	0.0033	0.0015	−0.0012	−0.0013	−0.0014
	f'' =	0.0313	0.0213	0.0148	0.0125	0.0091	0.0016	0.0009	0.0001	0.0001	0.0001
N	f' =	0.0807	0.0606	0.0461	0.0403	0.0311	0.0061	0.0030	−0.0020	−0.0020	−0.0023
	f'' =	0.0606	0.0416	0.0293	0.0248	0.0180	0.0033	0.0019	0.0002	0.0002	0.0001
O	f' =	0.1213	0.0928	0.0716	0.0630	0.0492	0.0106	0.0056	−0.0025	−0.0026	−0.0030
	f'' =	0.1057	0.0731	0.0518	0.0440	0.0322	0.0060	0.0036	0.0004	0.0004	0.0003
F	f' =	0.1700	0.1324	0.1037	0.0920	0.0727	0.0171	0.0096	−0.0027	−0.0028	−0.0034
	f'' =	0.1710	0.1192	0.0851	0.0725	0.0534	0.0103	0.0061	0.0007	0.0007	0.0005
Ne	f' =	0.2257	0.1793	0.1426	0.1273	0.1019	0.0259	0.0152	−0.0025	−0.0028	−0.0037
	f'' =	0.2621	0.1837	0.1318	0.1126	0.0833	0.0164	0.0098	0.0012	0.0011	0.0008
Na	f' =	0.2801	0.2295	0.1857	0.1670	0.1353	0.0362	0.0218	−0.0028	−0.0031	−0.0044
	f'' =	0.3829	0.2699	0.1957	0.1667	0.1239	0.0249	0.0150	0.0019	0.0017	0.0012
Mg	f' =	0.3299	0.2778	0.2309	0.2094	0.1719	0.0486	0.0298	−0.0030	−0.0034	−0.0052
	f'' =	0.5365	0.3812	0.2765	0.2373	0.1771	0.0363	0.0220	0.0028	0.0026	0.0018
Al	f' =	0.3760	0.3260	0.2774	0.2551	0.2130	0.0645	0.0406	−0.0020	−0.0026	−0.0050
	f'' =	0.7287	0.5212	0.3807	0.3276	0.2455	0.0514	0.0313	0.0040	0.0037	0.0027
Si	f' =	0.3921	0.3647	0.3209	0.2979	0.2541	0.0817	0.0522	−0.0017	−0.0025	−0.0055
	f'' =	0.9619	0.6921	0.5081	0.4384	0.3302	0.0704	0.0431	0.0056	0.0052	0.0038
P	f' =	0.3821	0.3898	0.3592	0.3388	0.2955	0.1023	0.0667	−0.0002	−0.0012	−0.0050
	f'' =	1.2423	0.8984	0.6628	0.5731	0.4335	0.0942	0.0580	0.0077	0.0071	0.0052
S	f' =	0.3167	0.3899	0.3848	0.3706	0.3331	0.1246	0.0826	0.0015	0.0003	−0.0045
	f'' =	1.5665	1.1410	0.8457	0.7329	0.5567	0.1234	0.0763	0.0103	0.0096	0.0069
Cl	f' =	0.1832	0.3508	0.3920	0.3892	0.3639	0.1484	0.0998	0.0032	0.0017	−0.0042
	f'' =	1.9384	1.4222	1.0596	0.9202	0.7018	0.1585	0.0984	0.0134	0.0125	0.0091
Ar	f' =	−0.0656	0.2609	0.3696	0.3880	0.3843	0.1743	0.1191	0.0059	0.0041	−0.0030
	f'' =	2.3670	1.7458	1.3087	1.1388	0.8717	0.2003	0.1249	0.0174	0.0162	0.0118
K	f' =	−0.5083	0.0914	0.3068	0.3532	0.3868	0.2009	0.1399	0.0089	0.0067	−0.0017
	f'' =	2.8437	2.1089	1.5888	1.3865	1.0657	0.2494	0.1562	0.0219	0.0204	0.0149
Ca	f' =	−1.3666	−0.1987	0.1867	0.2782	0.3641	0.2262	0.1611	0.0122	0.0097	−0.0002
	f'' =	3.3694	2.5138	1.9032	0.6648	1.2855	0.3064	0.1926	0.0273	0.0255	0.0187
Sc	f' =	−5.4265	−0.6935	−0.0120	0.1474	0.3119	0.2519	0.1829	0.0159	0.0130	0.0015
	f'' =	4.0017	2.9646	2.2557	1.9774	1.5331	0.3716	0.2348	0.0338	0.0315	0.0231
Ti	f' =	−2.2250	−1.6394	−0.3318	−0.0617	0.2191	0.2776	0.2060	0.0212	0.0179	0.0047
	f'' =	0.5264	3.4538	2.6425	2.3213	1.8069	0.4457	0.2830	0.0414	0.0387	0.0284
V	f' =	−1.6269	−4.4818	−0.8645	−0.3871	0.0687	0.3005	0.2276	0.0259	0.0221	0.0070
	f'' =	0.6340	0.4575	3.0644	2.6994	2.1097	0.5294	0.3376	0.0500	0.0468	0.0344
Cr	f' =	−1.2999	−2.1308	−1.9210	−0.9524	−0.1635	0.3209	0.2496	0.0314	0.0272	0.0101
	f'' =	0.7569	0.5468	3.5251	3.1130	2.4439	0.6236	0.3992	0.0599	0.0561	0.0413
Mn	f' =	−1.0732	−1.5980	−3.5716	−2.0793	−0.5299	0.3368	0.2704	0.0377	0.0330	0.0139
	f'' =	0.8956	0.6479	0.4798	3.5546	2.8052	0.7283	0.4681	0.0712	0.0666	0.0492
Fe	f' =	−0.8901	−1.2935	−2.0554	−3.3307	−1.1336	0.3463	0.2886	0.0438	0.0386	0.0173
	f'' =	1.0521	0.7620	0.5649	0.4901	3.1974	0.8444	0.5448	0.0840	0.0787	0.0582
Co	f' =	−0.7307	−1.0738	−1.5743	−2.0230	−2.3653	0.3494	0.3050	0.0512	0.0454	0.0219
	f'' =	1.2272	0.8897	0.6602	0.5731	3.6143	0.9721	0.6296	0.0984	0.0921	0.0682
Ni	f' =	−0.5921	−0.9005	−1.2894	−1.5664	−3.0029	0.3393	0.3147	0.0563	0.0500	0.0244
	f'' =	1.4240	1.0331	0.7671	0.6662	0.5091	1.1124	0.7232	0.1146	0.1074	0.0796
Cu	f' =	−0.4430	−0.7338	−1.0699	−1.2789	−1.9646	0.3201	0.3240	0.0647	0.0579	0.0298
	f'' =	1.6427	1.1930	0.8864	0.7700	0.5888	1.2651	0.8257	0.1326	0.1242	0.0922
Zn	f' =	−0.3524	−0.6166	−0.9134	−1.0843	−1.5491	0.2839	0.3242	0.0722	0.0648	0.0344
	f'' =	1.8861	1.3712	1.0193	0.8857	0.6778	1.4301	0.9375	0.1526	0.1430	0.1063
Ga	f' =	−0.2524	−0.4989	−0.7701	−0.9200	−1.2846	0.2307	0.3179	0.0800	0.0721	0.0393
	f'' =	2.1518	1.5674	1.1663	1.0138	0.7763	1.6083	1.0589	0.1745	0.1636	0.1218
Ge	f' =	−0.1549	−0.3858	−0.6412	−0.7781	−1.0885	0.1547	0.3016	0.0880	0.0796	0.0445
	f'' =	2.4445	1.7841	1.3291	1.1557	0.8855	1.8001	1.1903	0.1987	0.1863	0.1389
As	f' =	−0.0687	−0.2871	−0.5260	−0.6523	−0.9300	0.0499	0.2758	0.0962	0.0873	0.0501
	f'' =	2.7627	2.0194	1.5069	1.3109	1.0051	2.0058	1.3314	0.2252	0.2112	0.1576
Se	f' =	0.0052	−0.1919	−0.4179	−0.5390	−0.7943	−0.0929	0.2367	0.1047	0.0954	0.0560
	f'' =	3.1131	2.2784	1.7027	1.4821	1.1372	2.2259	1.4831	0.2543	0.2386	0.1782
Br	f' =	0.0592	−0.1095	−0.3244	−0.4363	−0.6763	−0.2901	0.1811	0.1106	0.1026	0.0613
	f'' =	3.4901	2.5578	1.9140	1.6673	1.2805	2.4595	1.6452	0.2858	0.2682	0.2006
Kr	f' =	0.1009	−0.0316	−0.2303	−0.3390	−0.5657	−0.5574	0.1067	0.1180	0.1082	0.0668
	f'' =	3.9083	2.8669	2.1472	1.8713	1.4385	2.7079	1.8192	0.3197	0.3003	0.2251

Table 4.2.6.8. *Dispersion corrections for forward scattering (cont.)*

Wavelength (Å)		2.748510	2.289620	1.935970	1.788965	1.540520	0.709260	0.559360	0.215947	0.209010	0.180195
Rb	$f' =$	0.1056	0.0247	−0.1516	−0.2535	−0.4688	−0.9393	0.0068	0.1247	0.1146	0.0717
	$f'' =$	4.3505	3.1954	2.3960	2.0893	1.6079	2.9676	2.0025	0.3561	0.3346	0.2514
Sr	$f' =$	0.1220	0.1037	−0.0489	−0.1448	−0.3528	−1.5307	−0.1172	0.1321	0.1219	0.0769
	$f'' =$	4.8946	3.6029	2.7060	2.3614	1.8200	3.2498	2.2025	0.3964	0.3726	0.2805
Y	$f' =$	0.0654	0.1263	0.0138	−0.0720	−0.2670	−2.7962	−0.2879	0.1380	0.1278	0.0819
	$f'' =$	5.4198	3.9964	3.0054	2.6241	2.0244	3.5667	2.4099	0.4390	0.4128	0.3112
Zr	$f' =$	−0.0304	0.1338	0.0659	−0.0066	−0.1862	−2.9673	−0.5364	0.1431	0.1329	0.0863
	$f'' =$	5.9818	4.4226	3.3301	2.9086	2.2449	0.5597	2.6141	0.4852	0.4562	0.3443
Nb	$f' =$	−0.1659	0.1211	0.1072	0.0496	−0.1121	−2.0727	−0.8282	0.1471	0.1371	0.0905
	$f'' =$	6.5803	4.8761	3.6768	3.2133	2.4826	0.6215	2.8404	0.5342	0.5025	0.3797
Mo	$f' =$	−0.3487	0.0801	0.1301	0.0904	−0.0483	−1.6832	−1.2703	0.1487	0.1391	0.0934
	$f'' =$	7.2047	5.3484	4.0388	3.5326	2.7339	0.6857	3.0978	0.5862	0.5517	0.4177
Tc	$f' =$	−0.6073	−0.0025	0.1314	0.1164	0.0057	−1.4390	−2.0087	0.1496	0.1406	0.0960
	$f'' =$	7.8739	5.8597	4.4331	3.8799	3.0049	0.7593	3.3490	0.6424	0.6047	0.4582
Ru	$f' =$	−0.9294	−0.1091	0.1220	0.1331	0.0552	−1.2594	−5.3630	0.1491	0.1409	0.0981
	$f'' =$	8.5988	6.4069	4.8540	4.2509	3.2960	0.8363	3.6506	0.7016	0.6607	0.5014
Rh	$f' =$	−1.3551	−0.2630	0.0861	0.1305	0.0927	−1.1178	−2.5280	0.1445	0.1373	0.0970
	$f'' =$	9.3504	6.9820	5.2985	4.6432	3.6045	0.9187	0.5964	0.7639	0.7195	0.5469
Pd	$f' =$	−1.9086	−0.4640	0.0279	0.1128	0.1215	−0.9988	−1.9556	0.1387	0.1327	0.0959
	$f'' =$	10.1441	7.5938	5.7719	5.0613	3.9337	1.0072	0.6546	0.8302	0.7822	0.5955
Ag	$f' =$	−2.5003	−0.7387	−0.0700	0.0634	0.1306	−0.8971	−1.6473	0.1295	0.1251	0.0928
	$f'' =$	10.9916	8.2358	6.2709	5.5027	4.2820	1.1015	0.7167	0.9001	0.8484	0.6469
Cd	$f' =$	−3.5070	−1.1086	−0.2163	−0.0214	0.1185	−0.8075	−1.4396	0.1171	0.1147	0.0881
	$f'' =$	11.9019	8.9174	6.8017	5.9728	4.6533	1.2024	0.7832	0.9741	0.9185	0.7013
In	$f' =$	−5.1325	−1.5975	−0.4165	−0.1473	0.0822	−0.7276	−1.2843	0.1013	0.1012	0.0816
	$f'' =$	12.6310	9.6290	7.3594	6.4674	5.0449	1.3100	0.8542	1.0519	0.9922	0.7587
Sn	$f' =$	−7.5862	−2.2019	−0.6686	−0.3097	0.0259	−0.6537	−1.1587	0.0809	0.0839	0.0728
	$f'' =$	13.5168	10.3742	7.9473	6.9896	5.4591	1.4246	0.9299	1.1337	1.0697	0.8192
Sb	$f' =$	−9.2145	−3.0637	−0.9868	−0.5189	−0.0562	−0.5866	−1.0547	0.0559	0.0619	0.0613
	$f'' =$	12.7661	11.1026	8.5620	7.5367	5.8946	1.5461	1.0104	1.2196	1.1512	0.8830
Te	$f' =$	−11.6068	−4.2407	−1.4022	−0.7914	−0.1759	−0.5308	−0.9710	0.0216	0.0316	0.0435
	$f'' =$	−10.1013	11.8079	9.2067	8.1113	6.3531	1.6751	1.0960	1.3095	1.2366	0.9499
I	$f' =$	−13.9940	−5.6353	1.9032	1.1275	−0.3257	−0.4742	−0.8919	−0.0146	−0.0001	0.0259
	$f'' =$	3.4071	12.6156	9.8852	8.7159	6.8362	1.8119	1.1868	1.4037	1.3259	1.0201
Xe	$f' =$	−9.6593	−8.1899	−2.6313	−1.5532	−0.5179	−0.4205	−0.8200	−0.0565	−0.0367	0.0057
	$f'' =$	3.7063	11.7407	10.5776	9.3585	7.3500	1.9578	1.2838	1.5023	1.4195	1.0938
Cs	$f' =$	−8.1342	−10.3310	−3.5831	−2.1433	−0.7457	−0.3680	−0.7527	−0.1070	−0.0809	0.0194
	$f'' =$	4.0732	12.8551	11.2902	10.0454	7.9052	2.1192	1.3916	1.6058	1.5179	1.1714
Ba	$f' =$	−7.2079	−11.0454	−4.6472	−2.7946	−1.0456	−0.3244	−0.6940	−0.1670	−0.1335	−0.0494
	$f'' =$	4.4110	10.0919	12.0003	10.7091	8.4617	2.2819	1.5004	1.7127	1.6194	1.2517
La	$f' =$	−6.5722	−12.8190	−6.3557	−3.6566	−1.4094	−0.2871	−0.6411	−0.2363	−0.1940	−0.0835
	$f'' =$	4.7587	3.5648	12.8927	11.4336	9.0376	2.4523	1.6148	1.8238	1.7250	1.3353
Ce	$f' =$	−6.0641	−9.3304	−8.0962	−4.8792	−1.8482	−0.2486	−0.5890	−0.3159	−0.2633	−0.1222
	$f'' =$	5.1301	3.8433	11.8734	12.1350	9.6596	2.6331	1.7358	1.9398	1.8353	1.4227
Pr	$f' =$	−5.6727	−7.9841	−10.9279	−6.7923	−2.4164	−0.2180	−0.5424	−0.4096	−0.3443	−0.1666
	$f'' =$	5.5091	4.1304	9.2394	12.8653	10.2820	2.8214	1.8624	2.0599	1.9496	1.5136
Nd	$f' =$	−5.3510	−7.1451	−10.5249	−8.1618	−3.1807	−0.1943	−0.5012	−0.5194	−0.4389	−0.2183
	$f'' =$	5.9005	4.4278	9.9814	11.9121	10.9079	3.0179	1.9950	2.1843	2.0679	1.6077
Pm	$f' =$	−5.0783	−6.5334	−13.2062	−10.0720	−4.0598	−0.1753	−0.4626	−0.6447	−0.5499	−0.2776
	$f'' =$	6.3144	4.7422	3.6278	9.2324	11.5523	3.2249	2.1347	2.3143	2.1906	1.7056
Sm	$f' =$	−4.8443	−6.0570	−9.3497	−10.2609	−5.3236	−0.1638	−0.4287	−0.7989	−0.6734	−0.3455
	$f'' =$	6.7524	5.0744	3.8839	9.9412	12.2178	3.4418	2.2815	2.4510	2.3197	1.8069
Eu	$f' =$	−4.6288	−5.6630	−7.9854	−13.5405	−8.9294	−0.1578	−0.3977	−0.9903	−0.8137	−0.4235
	$f'' =$	7.2035	5.4178	4.1498	3.6550	11.1857	3.6682	2.4351	2.5896	2.4526	1.9120
Gd	$f' =$	−4.5094	−5.3778	−7.1681	−9.3863	−8.8380	−0.1653	−0.3741	−1.2279	−1.0234	−0.5140
	$f'' =$	7.6708	5.7756	4.4280	3.9016	11.9157	3.9035	2.5954	2.7304	2.5878	2.0202
Tb	$f' =$	−4.3489	−5.0951	−6.5583	−8.0413	−9.1472	−0.1723	−0.3496	−1.5334	−1.2583	−0.6165
	$f'' =$	8.1882	6.1667	4.7292	4.1674	9.1891	4.1537	2.7654	2.8797	2.7310	2.1330
Dy	$f' =$	−4.1616	−4.8149	−6.0597	−7.1503	−9.8046	−0.1892	−0.3302	−1.9594	−1.5632	−0.7322
	$f'' =$	8.6945	6.5527	5.0280	4.4320	9.8477	4.4098	2.9404	3.0274	2.8733	2.2494
Ho	$f' =$	−4.0280	−4.5887	−5.6628	−6.5338	−14.9734	−0.2175	−0.3168	−2.6705	−1.9886	−0.8709
	$f'' =$	9.2302	6.9619	5.3451	4.7129	3.7046	4.6783	3.1241	3.1799	3.0218	2.3711
Er	$f' =$	−3.9471	−4.4106	−5.3448	−6.0673	−9.4367	−0.2586	−0.3091	−5.5645	−2.6932	−1.0386
	$f'' =$	9.7921	7.3910	5.6776	5.0074	3.9380	4.9576	3.3158	0.6167	3.1695	2.4949
Tm	$f' =$	−3.9079	−4.2698	−5.0823	−5.6969	−8.0393	−0.3139	−0.3084	−2.8957	−5.6057	−1.2397
	$f'' =$	10.3763	7.8385	6.0249	5.3151	4.1821	5.2483	3.5155	0.6569	0.6192	2.6240
Yb	$f' =$	−3.8890	−4.1523	−4.8591	−5.3940	−7.2108	−0.3850	−0.3157	−2.4144	−2.9190	−1.4909
	$f'' =$	10.9742	8.2969	6.3813	5.6309	4.4329	5.5486	3.7229	0.6994	0.6592	2.7538

Table 4.2.6.8. *Dispersion corrections for forward scattering (cont.)*

Wavelength (Å)		2.748510	2.289620	1.935970	1.788965	1.540520	0.709260	0.559360	0.215947	0.209010	0.180195
Lu	f' =	−3.9056	−4.0630	−4.6707	−5.1360	−6.6179	−0.4720	−0.3299	−2.1535	−2.4402	−1.8184
	f'' =	11.5787	8.7649	6.7484	5.9574	4.6937	5.8584	3.9377	0.7436	0.7010	2.8890
Hf	f' =	−4.0452	−4.0564	−4.4593	−4.9466	−6.1794	−0.5830	−0.3548	−1.9785	−2.1778	−2.2909
	f'' =	12.2546	9.2832	7.1518	6.3150	4.9776	6.1852	4.1643	0.7905	0.7454	3.0246
Ta	f' =	−4.0905	−3.9860	−4.3912	−4.7389	−5.7959	−0.7052	−0.3831	−1.8534	−2.0068	−3.1639
	f'' =	12.9479	9.8171	7.5686	6.6850	5.2718	6.5227	4.3992	0.8392	0.7915	3.1610
W	f' =	−4.1530	−3.9270	−4.2486	−4.5529	−5.4734	−0.8490	−0.4201	−1.7565	−1.8819	−3.8673
	f'' =	13.6643	10.3696	8.0005	7.0688	5.5774	6.8722	4.6430	0.8905	0.8388	0.6433
Re	f' =	−4.2681	−3.9052	−4.1390	−4.4020	−5.2083	−1.0185	−0.4693	−1.6799	−1.7868	−2.8429
	f'' =	14.3931	10.9346	8.4435	7.4631	5.8923	7.2310	4.8944	0.9441	0.8907	0.6827
Os	f' =	−4.4183	−3.9016	−4.0478	−4.2711	−4.9801	−1.2165	−0.5280	−1.6170	−1.7107	−2.4688
	f'' =	15.1553	11.5251	8.9067	7.8753	6.2216	7.6030	5.1558	1.0001	0.9437	0.7238
Ir	f' =	−4.5860	−3.9049	−3.9606	−4.1463	−4.7710	−1.4442	−0.5977	−1.5648	−1.6486	−2.2499
	f'' =	15.9558	12.1453	9.3923	8.3074	6.5667	7.9887	5.4269	1.0589	0.9993	0.7669
Pt	f' =	−4.8057	−3.9435	−3.8977	−4.0461	−4.5932	−1.7033	−0.6812	−1.5228	−1.5998	−2.1036
	f'' =	16.7870	12.7910	9.8985	8.7578	6.9264	8.3905	5.7081	1.1193	1.0565	0.8116
Au	f' =	−5.0625	−3.9908	−3.8356	−3.9461	−4.4197	−2.0133	−0.7638	−1.4693	−1.5404	−1.9775
	f'' =	17.6400	13.4551	10.4202	9.2222	7.2980	8.8022	5.9978	1.1833	1.1171	0.8589
Hg	f' =	−5.4327	−4.1029	−3.8228	−3.8921	−4.2923	−2.3894	−0.8801	−1.4389	−1.5055	−1.8958
	f'' =	18.5241	14.1473	10.9650	9.7076	7.6849	9.2266	6.2989	1.2483	1.1796	0.9080
TI	f' =	−5.8163	−4.2233	−3.8103	−3.8340	−4.1627	−2.8358	−1.0117	−1.4111	−1.4740	−1.8288
	f'' =	19.4378	14.8643	11.5300	10.2108	8.0900	9.6688	6.6090	1.3189	1.2456	0.9594
Pb	f' =	−6.4779	−4.4167	−3.8519	−3.8236	−4.0753	−3.3944	−1.1676	−1.3897	−1.4497	−1.7773
	f'' =	20.3336	15.5987	12.1106	10.7292	8.5060	10.1111	6.9287	1.3909	1.3137	1.0127
Bi	f' =	−7.0419	−4.6533	−3.9228	−3.8408	−4.0111	−4.1077	−1.3494	−1.3721	−1.4290	−1.7346
	f'' =	21.2196	16.3448	12.7017	11.2575	8.9310	10.2566	7.2566	1.4661	1.3851	1.0685
Po	f' =	−7.7195	−4.9604	−4.0267	−3.8855	−3.9670	−5.1210	−1.5613	−1.3584	−1.4133	−1.7005
	f'' =	22.1974	17.1410	13.3329	11.8209	9.3834	11.0496	7.5986	1.5443	1.4592	1.1266
At	f' =	−8.5994	−5.3399	−4.1781	−3.9706	−3.9588	−7.9122	−1.8039	−1.3540	−1.4066	−1.6784
	f'' =	23.2213	17.9390	13.9709	12.3915	9.8433	9.9777	7.9509	1.6260	1.5367	1.1876
Rn	f' =	−10.2749	−5.7275	−4.3331	−4.0549	−3.9487	−8.0659	−2.0847	−1.3475	−1.3982	−1.6571
	f'' =	24.2613	18.7720	14.6313	12.9815	10.3181	10.4580	8.3112	1.7103	1.6167	1.2504
Fr	f' =	−10.8938	−6.2180	−4.5387	−4.1818	−3.9689	−7.2224	−2.4129	−1.3404	−1.3892	−1.6367
	f'' =	24.3041	19.6009	15.3016	13.5825	10.8038	7.7847	8.6839	1.7986	1.7004	1.3162
Ra	f' =	−12.3462	−6.7502	−4.7764	−4.3309	−4.0088	−6.7704	−2.8081	−1.3462	−1.3931	−1.6299
	f'' =	25.5374	20.4389	15.9778	14.1902	11.2969	8.1435	9.0614	1.8891	1.7863	1.3840
Ac	f' =	−12.3496	−7.4161	−5.0617	−4.5270	−4.0794	−6.8494	−3.2784	−1.3473	−1.3922	−1.6190
	f'' =	25.1363	21.3053	16.6687	14.8096	11.7994	8.5178	9.4502	1.9845	1.8770	1.4553
Th	f' =	−13.6049	−8.2118	−5.3692	−4.7310	−4.1491	−7.2400	−3.8533	−1.3524	−1.3955	−1.6136
	f'' =	26.2511	22.2248	17.4018	15.4642	12.3296	8.8979	9.8403	2.0819	1.9695	1.5284
Pa	f' =	−14.4639	−9.4459	−5.7337	−4.9639	−4.2473	−8.0334	−4.6067	−1.3672	−1.4083	−1.6170
	f'' =	27.4475	23.1548	18.1406	16.1295	12.8681	9.2807	10.2413	2.1835	2.0661	1.6047
U	f' =	−12.3528	−9.9362	−6.1485	−5.2392	−4.3638	−9.6767	−5.7225	−1.3792	−1.4184	−1.6188
	f'' =	30.1725	23.1239	18.8728	16.7952	13.4090	9.6646	10.6428	2.2876	1.1650	1.6831
Np	f' =	−17.4143	−11.1080	−6.6136	−5.5633	−4.5053	−11.4937	−6.9995	−1.3941	−1.4312	−1.6231
	f'' =	31.7405	24.1168	19.6379	17.4837	13.9666	4.1493	9.5876	2.3958	2.2679	1.7648
Pu	f' =	−18.0862	−11.4073	−6.9721	−5.8130	−4.6563	−9.4100	−13.5905	−1.4180	−1.4527	−1.6351
	f'' =	33.8963	23.2960	20.1548	17.9579	14.3729	4.3056	6.9468	2.4979	2.3652	1.8430
Am	f' =	−19.7042	−11.7097	−7.7881	−6.2920	−4.8483	−7.8986	−6.7022	−1.4359	−1.4684	−1.6424
	f'' =	37.3716	24.5715	21.1738	18.8618	15.0877	4.5125	7.3108	2.6218	2.4829	1.9358
Cm	f' =	−24.9307	−10.4100	−8.6102	−6.7506	−5.0611	−7.3248	−6.2891	−1.4655	−1.4952	−1.6592
	f'' =	41.4852	25.8115	21.8880	19.5119	15.6355	4.6980	7.6044	2.7421	2.5974	2.0271
Bk	f' =	−32.8492	−9.2185	−9.3381	−7.4293	−5.3481	−6.8498	−6.3438	−1.4932	−1.5203	−1.6746
	f'' =	32.5421	29.3028	21.9514	20.3581	16.3190	4.9086	7.9477	2.8653	2.7147	2.1208
Cf	f' =	−23.6520	−23.5202	−9.7799	−7.8616	−5.5545	−6.6561	−6.4144	−1.5323	−1.5562	−1.6984
	f'' =	21.9334	31.2999	22.4858	20.8536	16.7428	5.0785	8.1930	2.9807	2.8250	2.2102

& Fischer (1994) have extended this to the description of kinematic diffraction intensities in lattices containing anisotropic anomalous scatterers. Their treatment was developed for space groups up to orthorhombic symmetry.

All the preceeding treatments apply to scattering in the neighbourhood of an absorption edge, and to a fairly restricted class of crystals for which the local site symmetry of the electron density of states in the excited state is very different from the apparent crystal symmetry.

These approaches seek to treat the scattering from the crystal as though the scattering from each atomic position can be described by a symmetric second-rank tensor whose properties are determined by the point-group symmetries of those sites. Clearly, this procedure cannot be followed unless the structure has been solved by the usual method. The tensor approach can then be used to explain apparent deficiencies in that model such as the existence of 'forbidden' reflections, birefringence, and circular dichroism.

references