

Appendix E. Atomic Sensitivity Factors for X-ray Sources at 90°

This table is based upon empirical peak area values corrected for the system's transmission function. The values are only valid for and should only be applied when the electron energy analyzer used has the transmission characteristics of the spherical capacitor type analyzer equipped with an Omni Focus III lens supplied by Perkin-Elmer. The data are calculated for x-rays at 90° relative to the analyzer.*

Element	Line	ASF	Element	Line	ASF	Element	Line	ASF	Element	Line	ASF
Ag	3d	5.198	Eu	4d	2.210	Na	1s	1.685	Si	2p	0.283
Al	2p	0.193	F	1s	1.000	Nb	3d	2.517	Sm	3d _{5/2}	2.907
Ar	2p	1.011	Fe	2p	2.686	Nd	3d	4.697	Sn	3d _{5/2}	4.095
As	3d	0.570	Ga	2p _{3/2}	3.341	Ne	1s	1.340	Sr	3d	1.578
Au	4f	5.240	Gd	4d	2.207	Ni	2p	3.653	Ta	4f	2.589
B	1s	0.159	Ge	2p _{3/2}	3.100	O	1s	0.711	Tb	4d	2.201
Ba	4d	2.627	Hf	4f	2.221	Os	4f	3.747	Tc	3d	3.266
Be	1s	0.074	Hg	4f	5.797	P	2p	0.412	Te	3d _{5/2}	4.925
Bi	4f	7.632	Ho	4d	2.189	Pb	4f	6.968	Th	4f _{7/2}	7.498
Br	3d	0.895	I	3d _{5/2}	5.337	Pd	3d	4.642	Ti	2p	1.798
C	1s	0.296	In	3d _{5/2}	3.777	Pm	3d	3.754	Tl	4f	6.447
Ca	2p	1.634	Ir	4f	4.217	Pr	3d	6.356	Tm	4d	2.172
Cd	3d _{5/2}	3.444	K	2p	1.300	Pt	4f	4.674	U	4f _{7/2}	8.476
Ce	3d	7.399	Kr	3d	1.096	Rb	3d	1.316	V	2p	1.912
Cl	2p	0.770	La	3d	7.708	Re	4f	3.327	W	4f	2.959
Co	2p	3.255	Li	1s	0.025	Rh	3d	4.179	Xe	3d _{5/2}	5.702
Cr	2p	2.201	Lu	4d	2.156	Ru	3d	3.696	Y	3d	1.867
Cs	3d _{5/2}	6.032	Mg	2s	0.252	S	2p	0.570	Yb	4d	2.169
Cu	2p	4.798	Mn	2p	2.420	Sb	3d _{5/2}	4.473	Zn	2p _{3/2}	3.354
Dy	4d	2.198	Mo	3d	2.867	Sc	2p	1.678	Zr	3d	2.216
Er	4d	2.184	N	1s	0.477	Se	3d	0.722			

*C.D Wagner, et al. *Surf. Interface Anal.* 3, 211 (1981).

Appendix F. Atomic Sensitivity Factors for X-ray Sources at 54.7°

This table is based upon empirical peak area values corrected for the system's transmission function. The values are only valid for and should only be applied when the electron energy analyzer used has the transmission characteristics of the spherical capacitor type analyzer equipped with an Omni Focus III lens supplied by Perkin-Elmer. The data are calculated for x-rays at 54.7° relative to the analyzer.*

Element	Line	ASF	Element	Line	ASF	Element	Line	ASF	Element	Line	ASF
Ag	3d	5.987	Eu	4d	2.488	Na	1s	1.685	Si	2p	0.339
Al	2p	0.234	F	1s	1.000	Nb	3d	2.921	Sm	3d _{5/2}	3.611
Ar	2p	1.155	Fe	2p	2.957	Nd	3d	5.671	Sn	3d _{5/2}	4.725
As	3d	0.677	Ga	2p _{3/2}	3.720	Ne	1s	1.340	Sr	3d	1.843
Au	4f	6.250	Gd	4d	2.484	Ni	2p	4.044	Ta	4f	3.082
B	1s	0.159	Ge	2p _{3/2}	3.457	O	1s	0.711	Tb	4d	2.477
Ba	3d _{5/2}	7.469	Hf	4f	2.639	Os	4f	4.461	Tc	3d	3.776
Be	1s	0.074	Hg	4f	6.915	P	2p	0.486	Te	3d _{5/2}	5.705
Bi	4f	9.140	Ho	4d	2.469	Pb	4f	8.329	Th	4f _{7/2}	9.089
Br	3d	1.053	I	3d _{5/2}	6.206	Pd	3d	5.356	Ti	2p	2.001
C	1s	0.296	In	3d _{5/2}	4.359	Pm	3d	4.597	Tl	4f	7.691
Ca	2p	1.833	Ir	4f	5.021	Pr	3d	7.627	Tm	4d	2.454
Cd	3d _{5/2}	3.974	K	2p	1.466	Pt	4f	5.575	U	4f _{7/2}	10.315
Ce	3d	8.808	Kr	3d	1.287	Rb	3d	1.542	V	2p	2.116
Cl	2p	0.891	La	3d	9.122	Re	4f	3.961	W	4f	3.523
Co	2p	3.590	Li	1s	0.025	Rh	3d	4.822	Xe	3d _{5/2}	6.64
Cr	2p	2.427	Lu	4d	2.441	Ru	3d	4.273	Y	3d	2.175
Cs	3d _{5/2}	7.041	Mg	2s	0.252	S	2p	0.666	Yb	4d	2.451
Cu	2p	5.321	Mn	2p	2.659	Sb	3d _{5/2}	5.176	Zn	2p _{3/2}	3.726
Dy	4d	2.474	Mo	3d	3.321	Sc	2p	1.875	Zr	3d	2.576
Er	4d	2.463	N	1s	0.477	Se	3d	0.853			

*C.D Wagner, et al. *Surf. Interface Anal.* 3, 211 (1981).