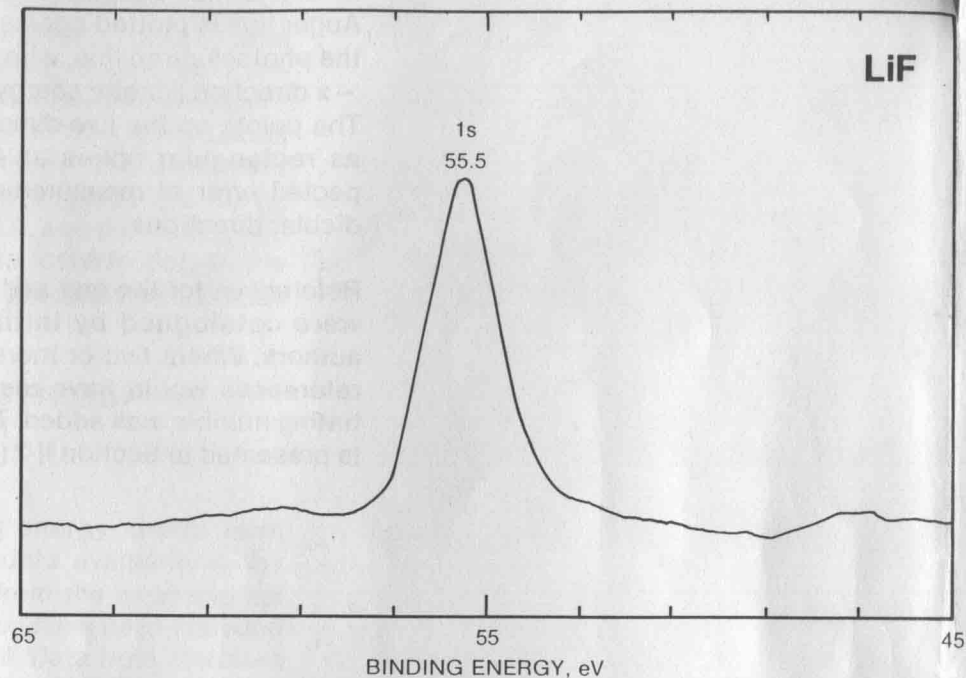


Name	Symbol	Atomic Number	Page	Name	Symbol	Atomic Number	Page
Aluminum	Al	13	50	Molybdenum	Mo	42	104
Antimony	Sb	51	120	Nickel	Ni	28	80
Argon	Ar	18	60	Niobium	Nb	41	102
Arsenic	As	33	90	Nitrogen	N	7	40
Barium	Ba	56	130	Oxygen	O	8	42
Beryllium	Be	4	34	Palladium	Pd	46	110
Bismuth	Bi	83	162	Phosphorus	P	15	54
Boron	B	5	36	Platinum	Pt	78	152
Bromine	Br	35	94	Potassium	K	19	62
Cadmium	Cd	48	114	Rhenium	Re	75	148
Calcium	Ca	20	64	Rhodium	Rh	45	103
Carbon	C	6	38	Ruthenium	Ru	44	106
Cerium	Ce	58	134	Samarium	Sm	62	136
Cesium	Cs	55	128	Scandium	Sc	21	66
Chlorine	Cl	17	58	Selenium	Se	34	92
Chromium	Cr	24	72	Silicon	Si	14	52
Cobalt	Co	27	78	Silver	Ag	47	112
Copper	Cu	29	82	Sodium	Na	11	46
Erbium	Er	68	140	Strontium	Sr	38	96
Fluorine	F	9	44	Sulfur	S	16	56
Gallium	Ga	31	86	Tantalum	Ta	73	144
Germanium	Ge	32	88	Tellurium	Te	52	122
Gold	Au	79	154	Terbium	Tb	65	138
Hafnium	Hf	72	142	Thallium	Tl	81	158
Indium	In	49	116	Thorium	Th	90	164
Iodine	I	53	124	Tin	Sn	50	118
Iridium	Ir	77	150	Titanium	Ti	22	68
Iron	Fe	26	76	Tungsten	W	74	146
Lanthanum	La	57	132	Uranium	U	92	166
Lead	Pb	82	160	Vanadium	V	23	70
Lithium	Li	3	32	Xenon	Xe	54	126
Magnesium	Mg	12	48	Yttrium	Y	39	98
Manganese	Mn	25	74	Zinc	Zn	30	84
Mercury	Hg	80	156	Zirconium	Zr	40	100

COMPOUND	1s BINDING ENERGY, eV	REF.
Li	55.5	BCW
Li	55.5	KL1
LiN ₃	55.5	SGR
Li ₃ PO ₄	55.5	MVS
Li ₄ P ₂ O ₇	55.5	MVS
LiCrO ₂	55.5	AC1
Li ₂ CrO ₄	55.5	AC1
LiBr	55.5	MVS
LiCl	55.5	MVS
LiF	55.5	MVS
LiF	55.5	Φ

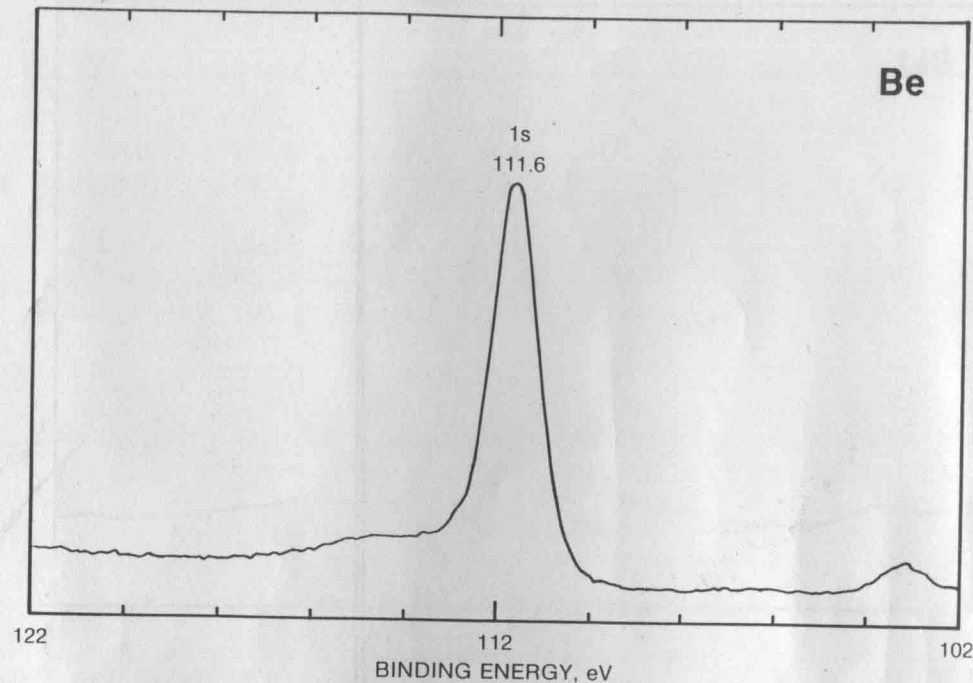


Beryllium, Be

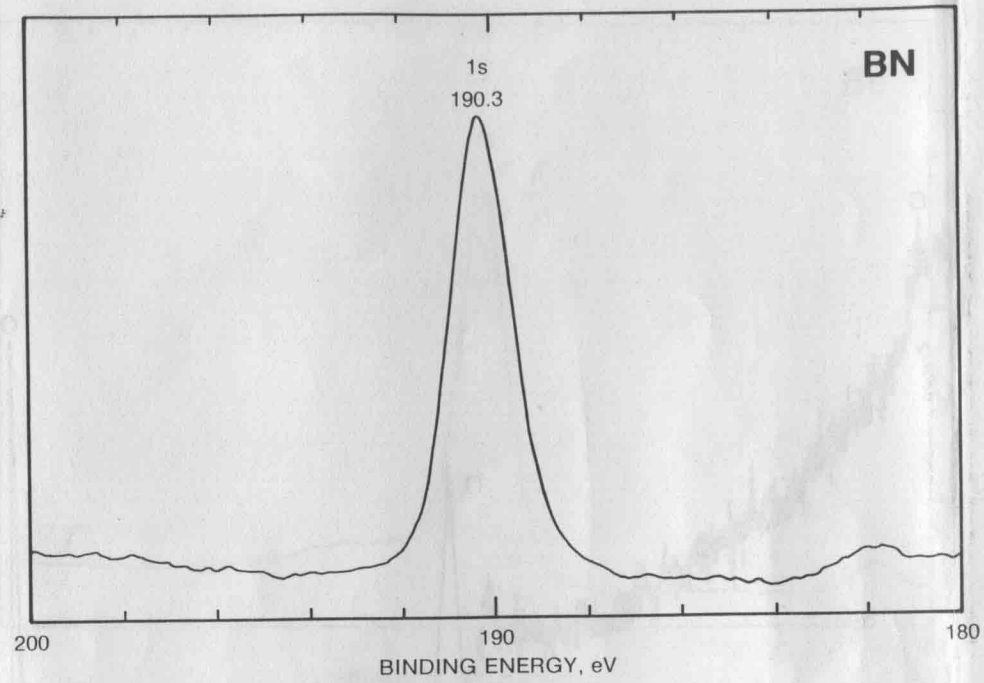
Atomic Number

4

COMPOUND	1s BINDING ENERGY, eV										REF.	
Be	110											Φ
Be												HJG
Be												B1
BeO												NGD
BeO												HJG
Na ₂ BeF ₄												NKB
NaBeF ₃												NKB
BeF ₂												NKB
BeF ₂												HJG



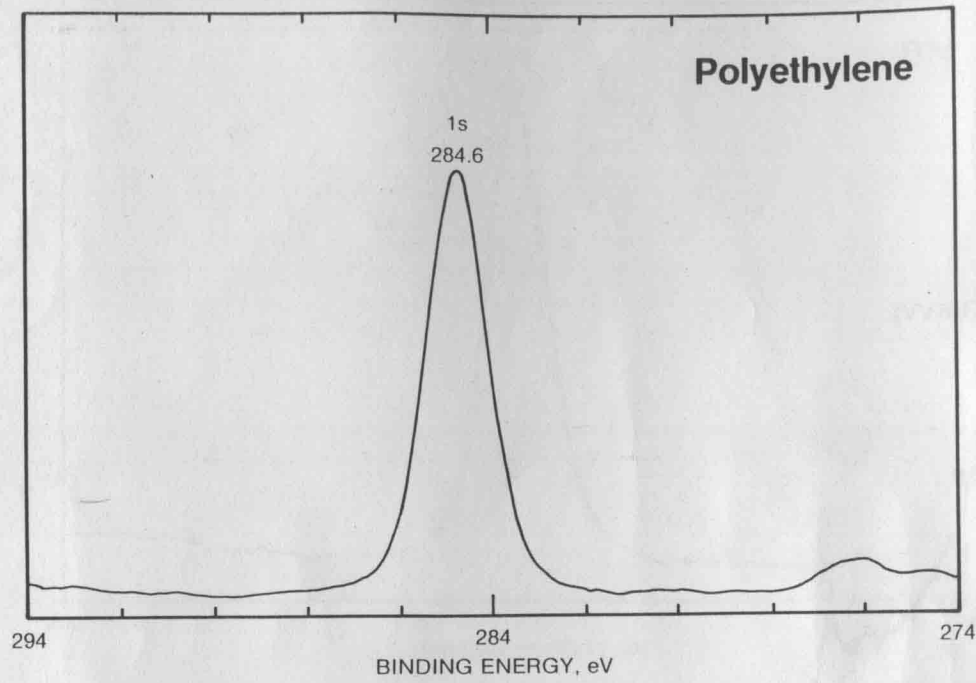
COMPOUND	1s BINDING ENERGY, eV										REF.
	185				190	91	92	93	94	195	
B ₄ C											HHJ
MnB ₂											MEC
TiB ₂											MEC
CoB											MEC
VB ₂											MEC
HfB ₂											MEC
MoB ₂											MEC
Fe ₂ B											MEC
AlB ₂											MEC
NaBH ₄											HHJ
B											HHJ
Me ₄ NB ₃ H ₈											HHJ
NaBPh ₄											HHJ
B ₁₀ H ₁₄											HHJ
B ₁₀ H ₁₂ Pt(PPh ₃) ₂											R
B ₁₀ H ₁₂ Pt(PEt ₃) ₂											R
BN											Φ
BN											HHJ
BN											HJG
p-C ₆ H ₄ B(OH) ₂											HHJ
NaBH(OMe) ₃											HHJ
Na ₃ B ₃ O ₆											HHJ
Ph ₃ POBBr ₃											HWV
Na ₂ B ₄ O ₇ ·10H ₂ O											HHJ
B(OH) ₃											HHJ
B ₂ O ₃											NGD
Ph ₃ POBCl ₃											HWV
Me ₃ NBF ₃											HHJ
Ph ₃ POBF ₃											HWV
C ₅ H ₅ NBF ₃											BC2
EtNH ₂ BF ₃											BC2
NH ₃ BF ₃											BC2
NaBF ₄											HHJ



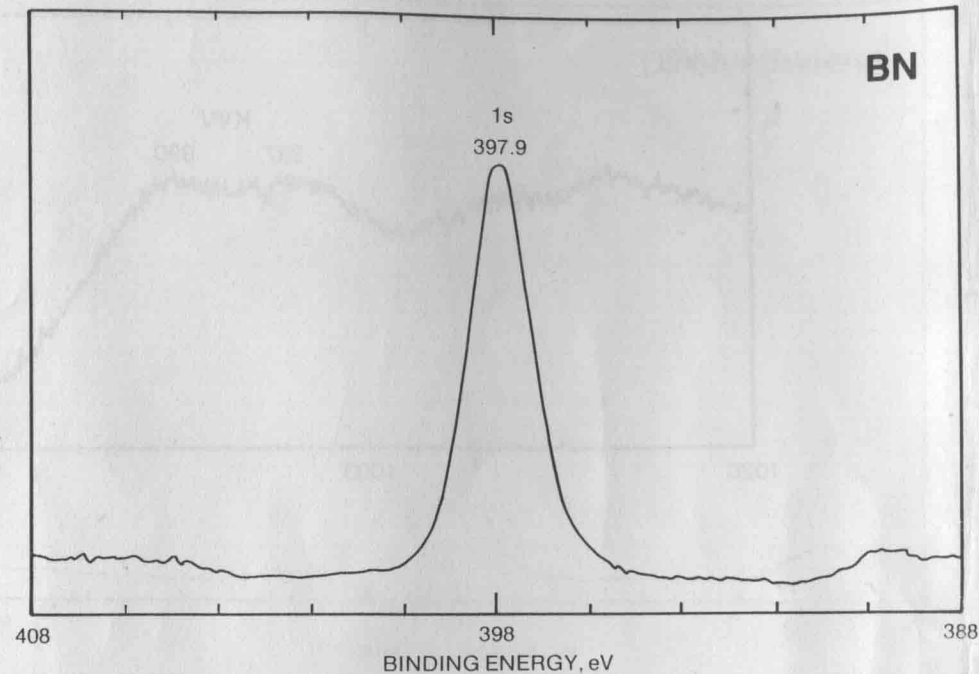
Carbon, C

Atomic Number 6

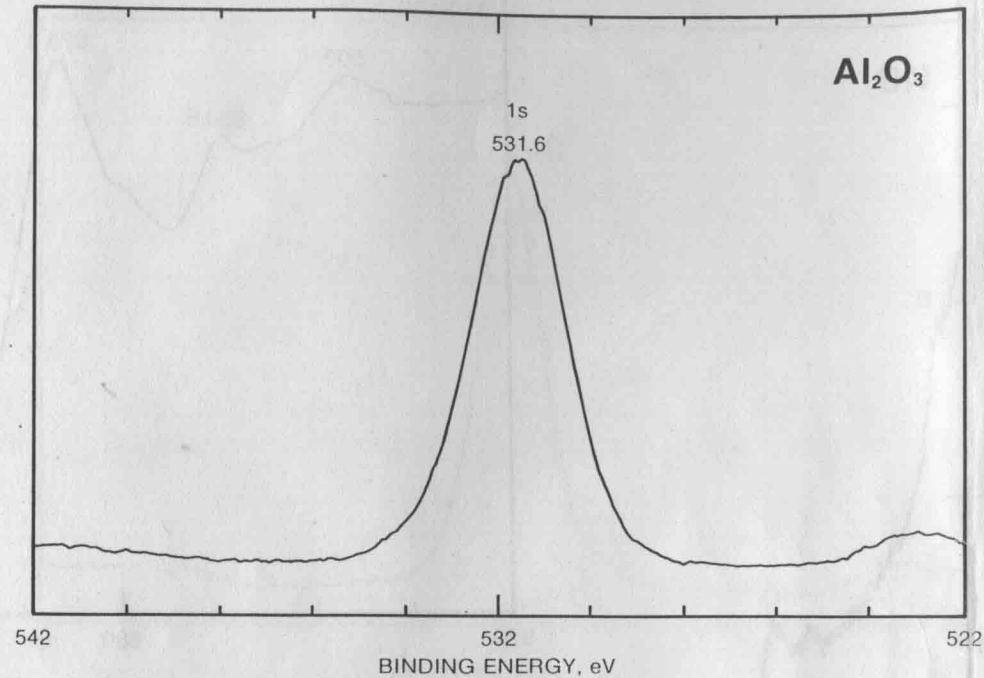
COMPOUND	1s BINDING ENERGY, eV					REF.
	280	284	288	292	296	
HfC						RH1
TiC						RH1
WC						RH1
C (graphite)						HJG
(CH ₂) _n						Φ
Mn(C ₅ H ₅) ₂						BCD
SnPh ₄						BAL
MeCH ₂ NH ₂						GHH
Cr(C ₆ H ₆) ₂						PFD
MeCH ₂ Cl						GHH
MeCH ₂ OH						GHH
MeCH ₂ OEt						GHH
MeCH ₂ COCMe						GHH
CS ₂						GHH
Fe(CO) ₅						BC1
Me ₂ CO						GHH
(NH ₂) ₂ CO						GHH
C ₆ F ₆						GHH
MeCOONa						GHH
MeCOOEt						GHH
MeCOOH						GHH
Na ₂ CO ₃						GHH
NaHCO ₃						GHH
CO						BC1
CO ₂						GHH
(CHFCH ₂) _n						CFK
(CHFCHF) _n						CFK
(CHFCH ₂) _n						CFK
(CF ₂ CH ₂) _n						CFK
(CF ₂ CHF) _n						CFK
(CF ₂) _n						CFK
CF ₃ COONa						GHH
CCl ₄						GHH
CF ₃ COMe						GHH
CF ₃ COOEt						GHH

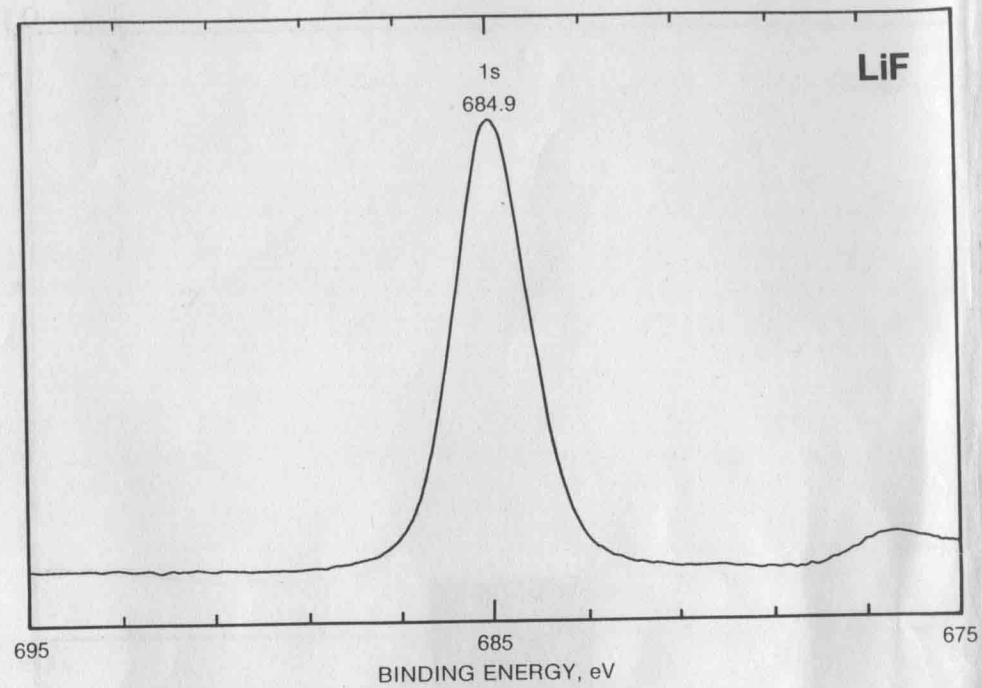
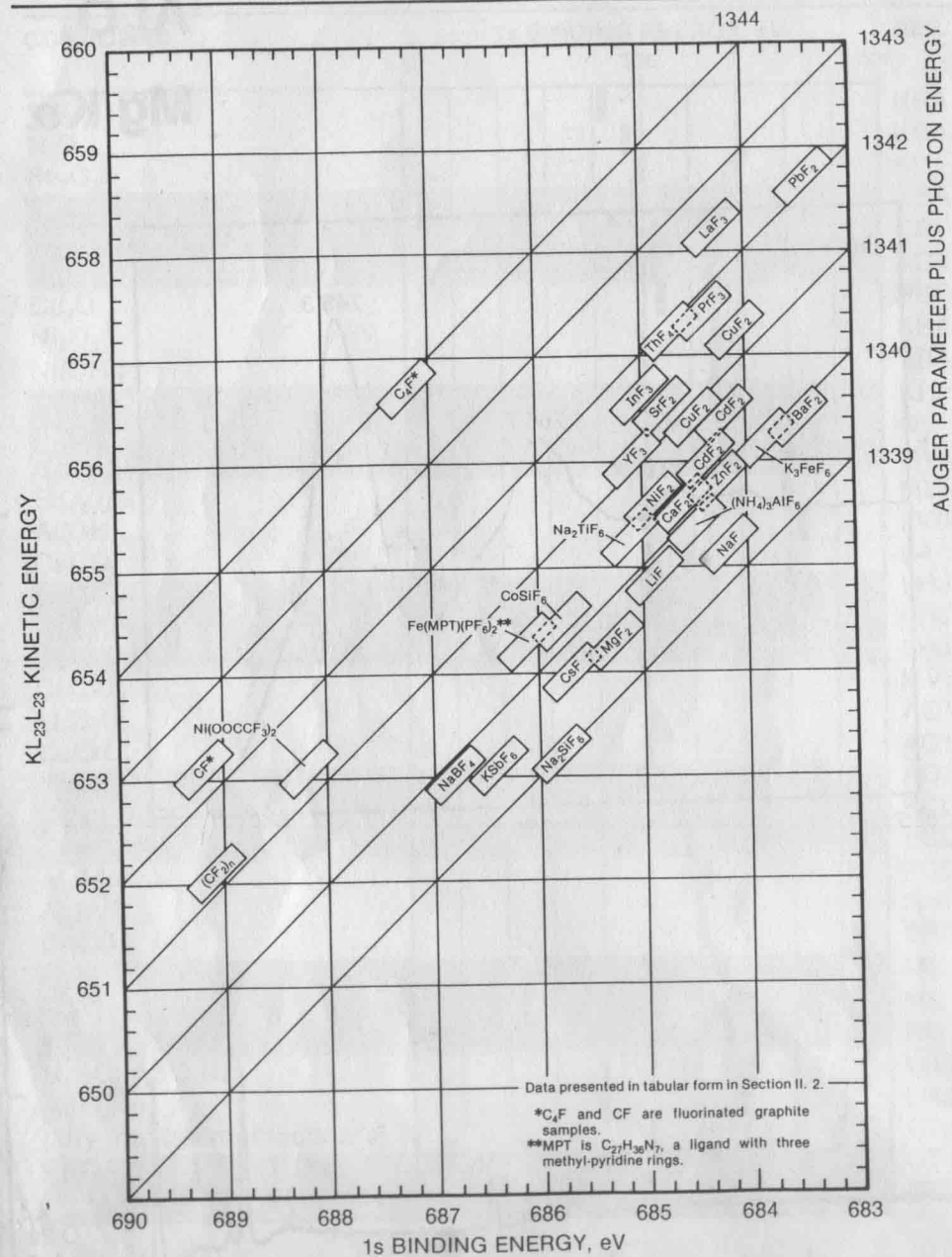


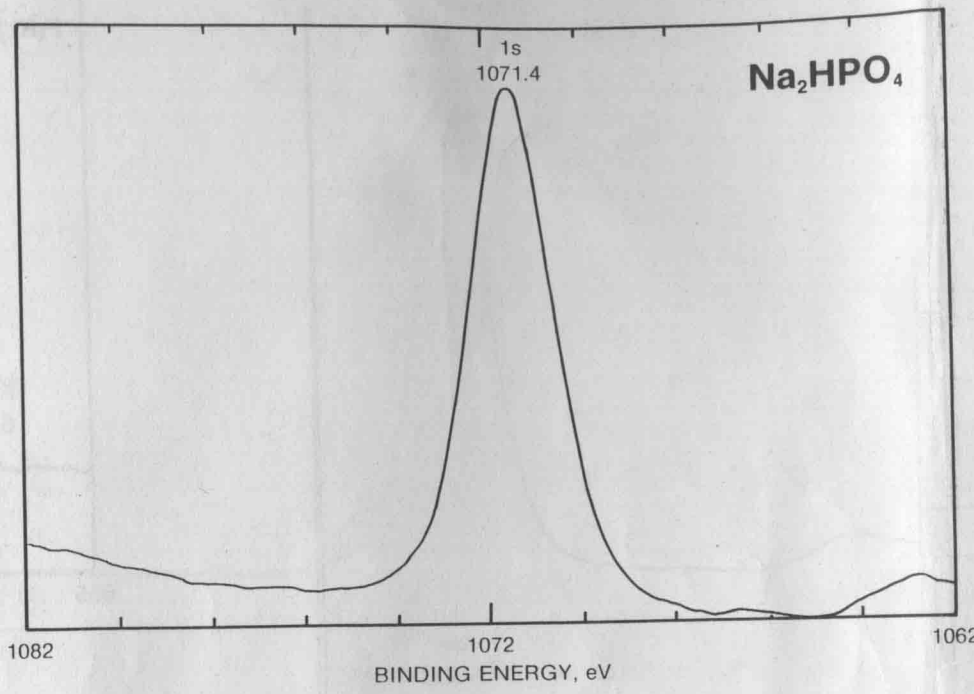
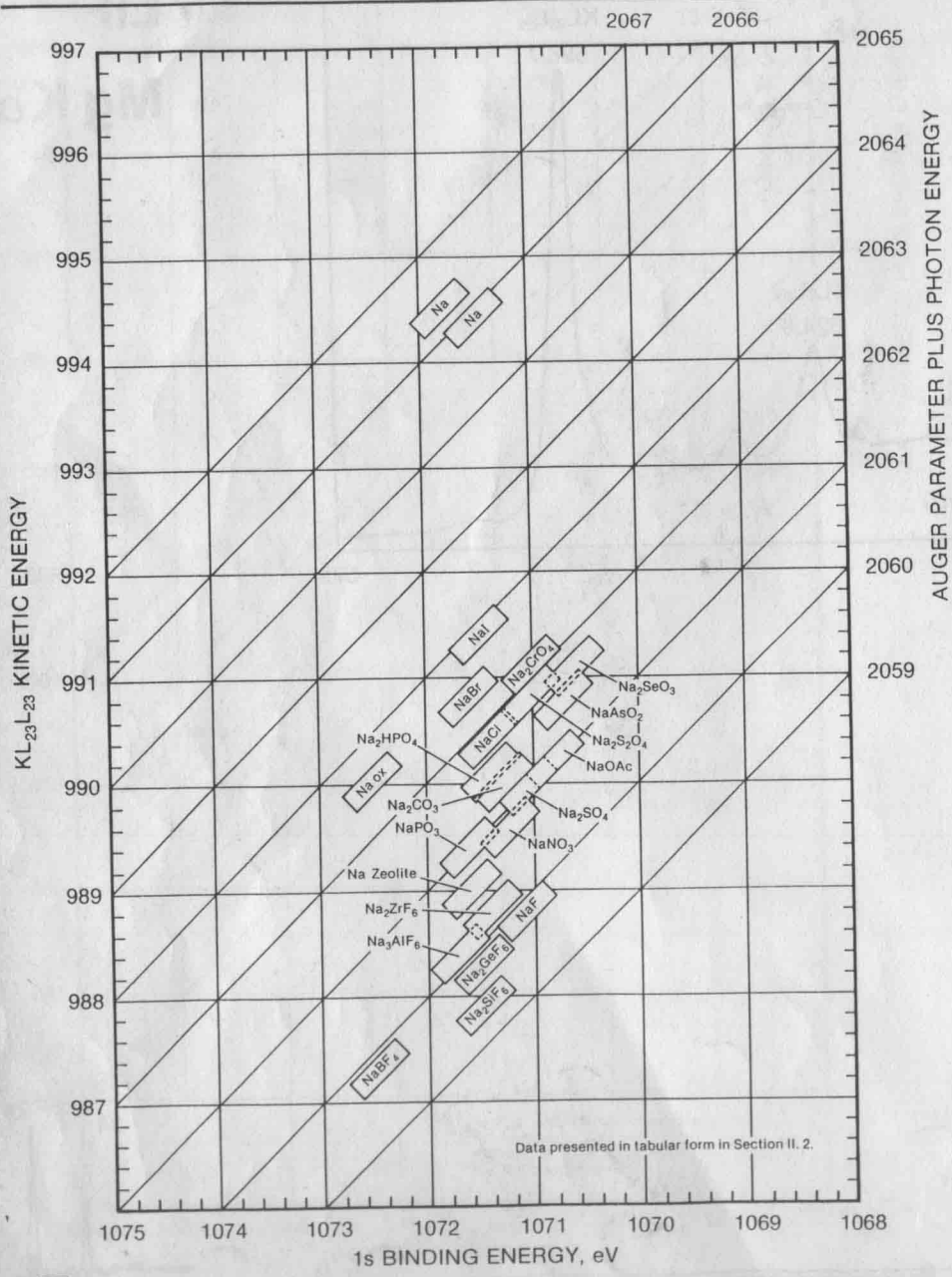
COMPOUND	1s BINDING ENERGY, eV					REF.
	394	398	402	406	410	
BuNH ₂						NAB
PhNH ₂						NAB
pyridine						NAB
H ₂ NC ₆ H ₄ NO ₂						NAB
H ₂ NSO ₂ C ₆ H ₄ NO ₂						NAB
tetracyanoquinodimethane						KSP
PhCN						NAB
PhNHCSNHPh						PNS
guanidine HCl						LR
phthalocyanine						NKT
PhNNPh						NAB
H ₃ N ⁺ CHRCOO ⁻						NAB
EtNH ₃ Cl						NAB
Me ₄ NBr						SGC
Me ₄ NCl						NAB
p-NH ₃ ⁺ C ₆ H ₄ SO ₃ ⁻						NAB
chloranil-pyridine						NH1
Me ₃ NO						NAB
AmONO						NAB
MeNO ₂						BMG
PhNO ₂						NAB
WN						CR
BN						Φ
NaSCN						F
K ₄ Fe(CN) ₆						YN1
KCN						F
S ₂ N ₂						SDI
Co(NH ₃) ₆ Cl ₃						N
N ₂ H ₆ SO ₄						F
(NH ₃ OH) ⁺ Cl ⁻						F
NH ₄ NO ₃						F
Na ₂ N ₂ O ₂						SF
NaN ₃						F
NaNO ₂						F
NaNO ₃						F



COMPOUND	1s BINDING ENERGY, eV										REF.
	525				530					535	
RuO ₂											KBA
NiO											KBA
Fe ₂ O ₃											KI1
RuO ₃											KBA
WO ₃											CR
Cr ₂ O ₃											AC1
Cu ₂ O											RBO
Ni ₂ O ₃											KBA
Ni(OH) ₂											KBA
KOH											KI1
Al ₂ O ₃											Φ
Na zeolite											MWJ
SiO ₂ gel											MWJ
Al(OH) ₃											FWF
CaCO ₃											S4
Na ₂ S ₂ O ₃											LHJ
Na ₂ SO ₃											LHJ
Na ₂ SO ₄											LHJ
CsClO ₄											MVS
Li ₂ CrO ₄											AC1
CuCrO ₂											AC1
Na ₂ Cr ₂ O ₇											AC1
CoMoO ₄											PCL
CoAl ₂ O ₄											PCL
Al ₂ (MoO ₄) ₃											PCL
Al ₂ (WO ₄) ₃											NH2
Cr(CO) ₆											PFD
R ₂ SO											ML
R ₂ SO ₂											ML
H ₂ NC ₆ H ₄ SO ₃ H											HS
H ₂ NC ₆ H ₄ SO ₂ NH ₂											LHJ
RSO ₃ Na											LHJ
poly (methyl methacrylate)											CT
Et ₂ O											CT
PhOCOOPh											CT



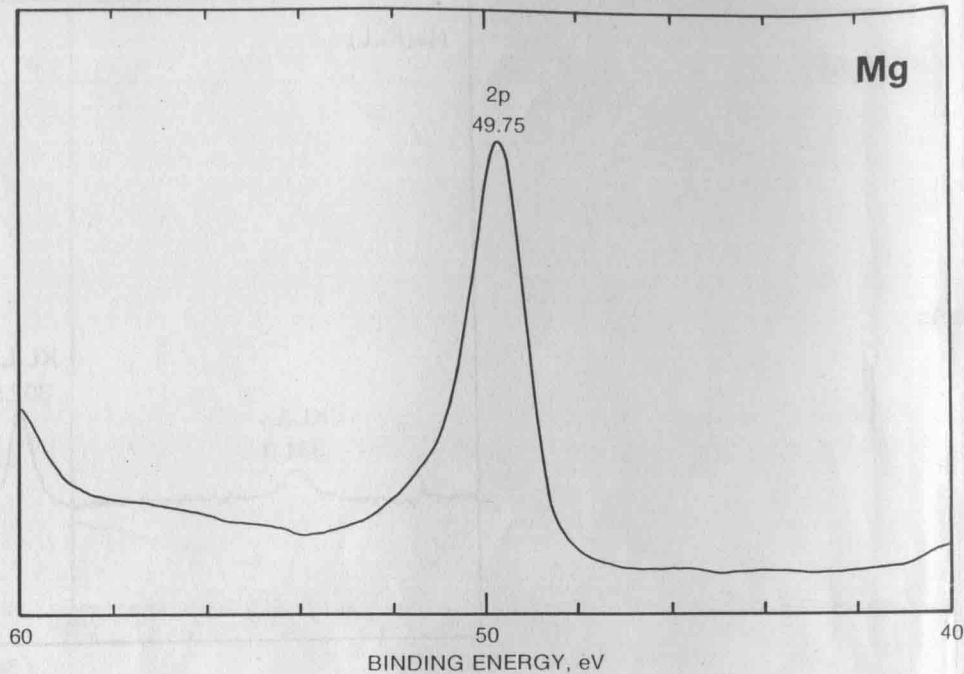




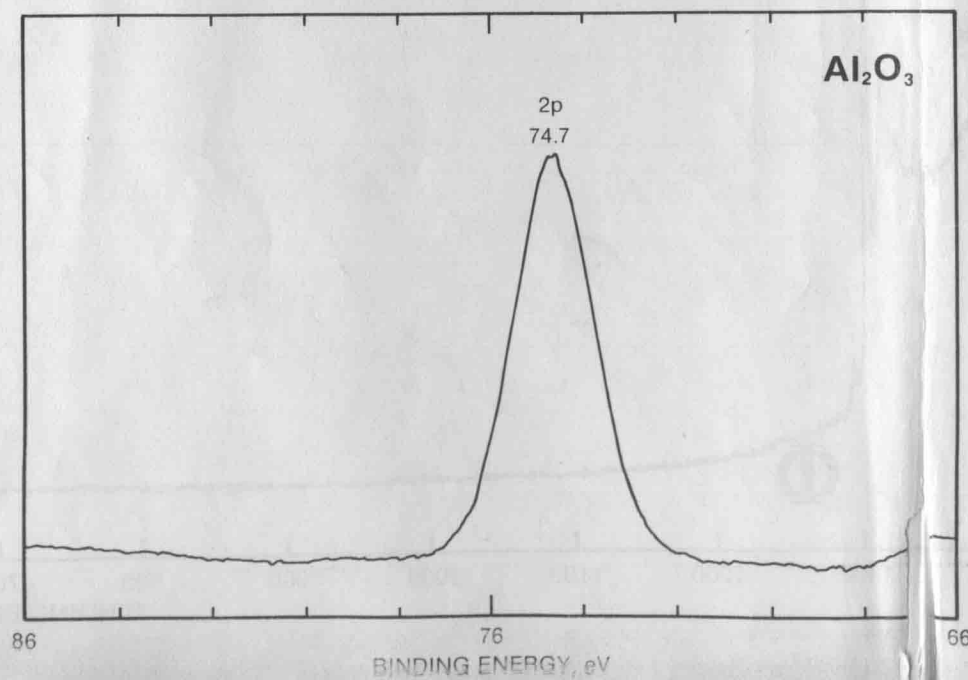
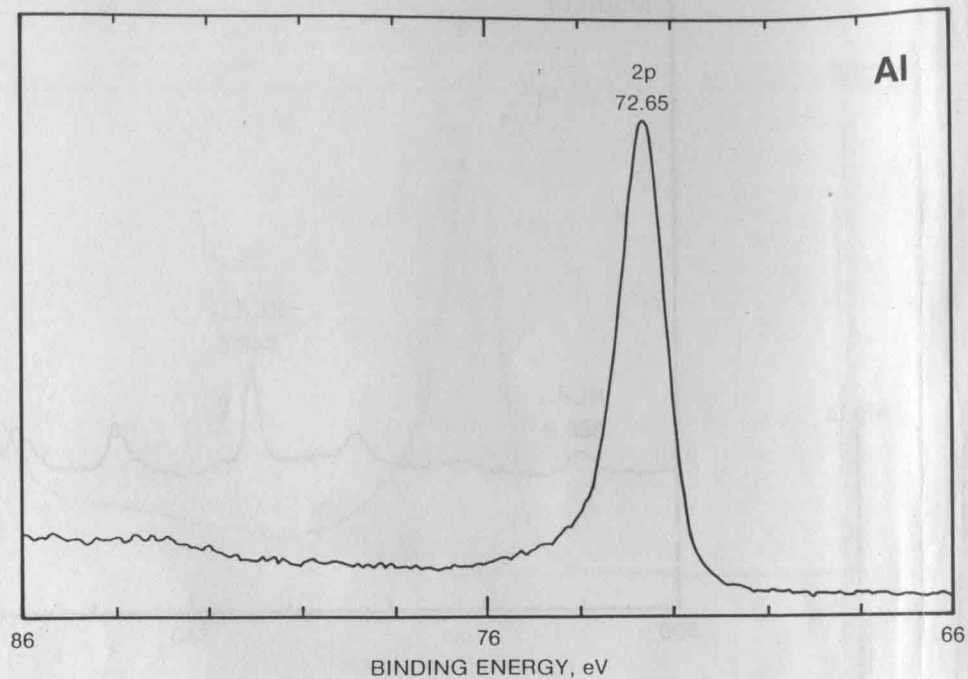
Magnesium, Mg

Atomic Number **12**

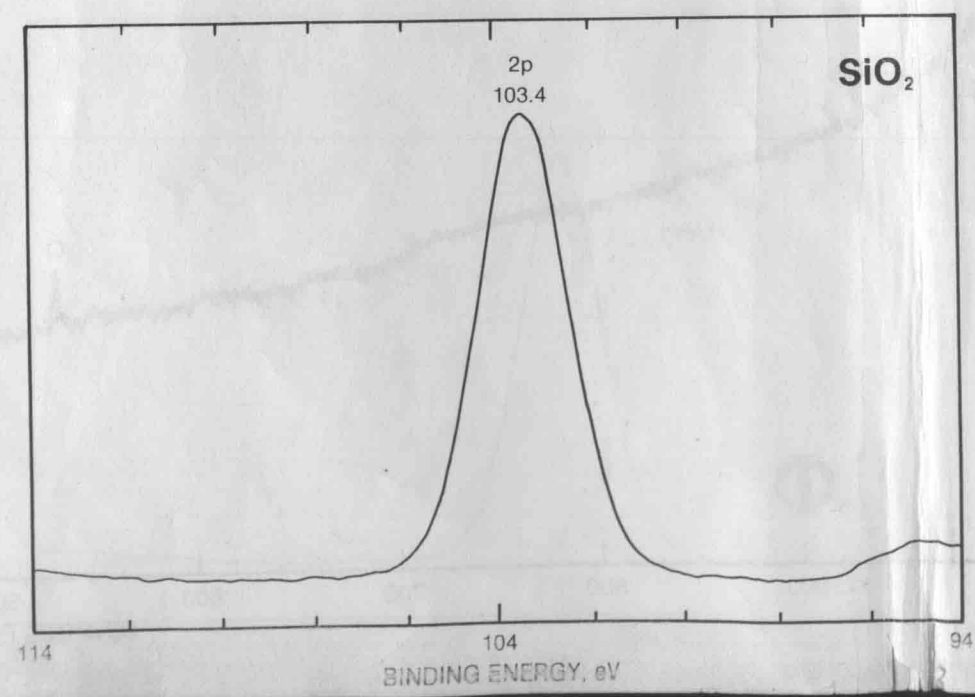
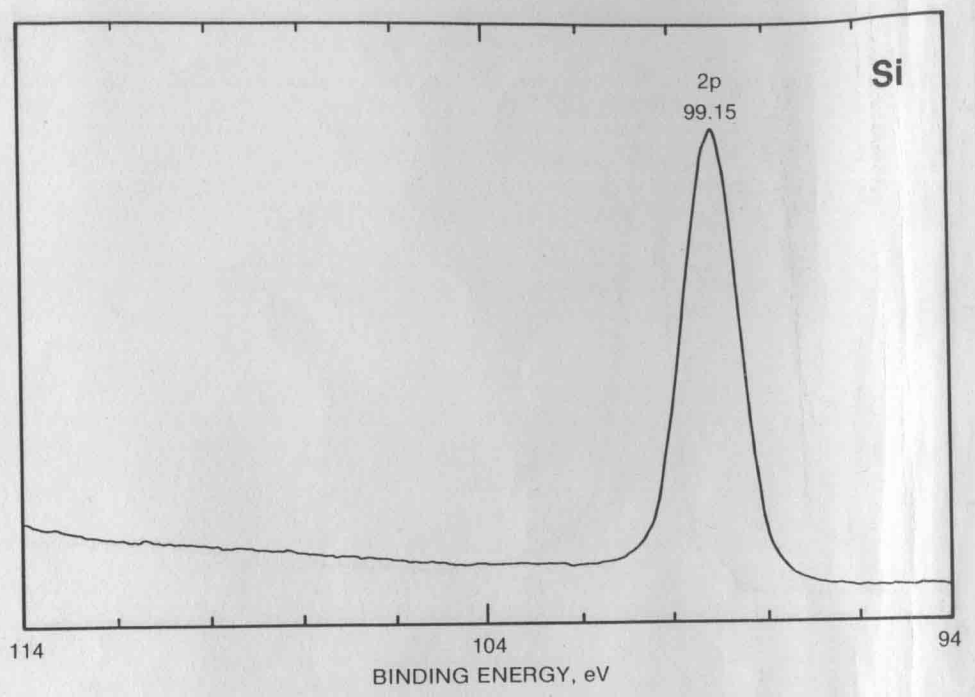
COMPOUND	2p BINDING ENERGY, eV										REF.
	45									55	
Mg											Φ
Mg											LMK
Mg											HF1
Mg											FWF
Mg ₃ Au											FWF
Mg ₂ Cu											FWF
Mg ₃ Bi											FWF
Mg ox											FWF
MgF ₂											Φ



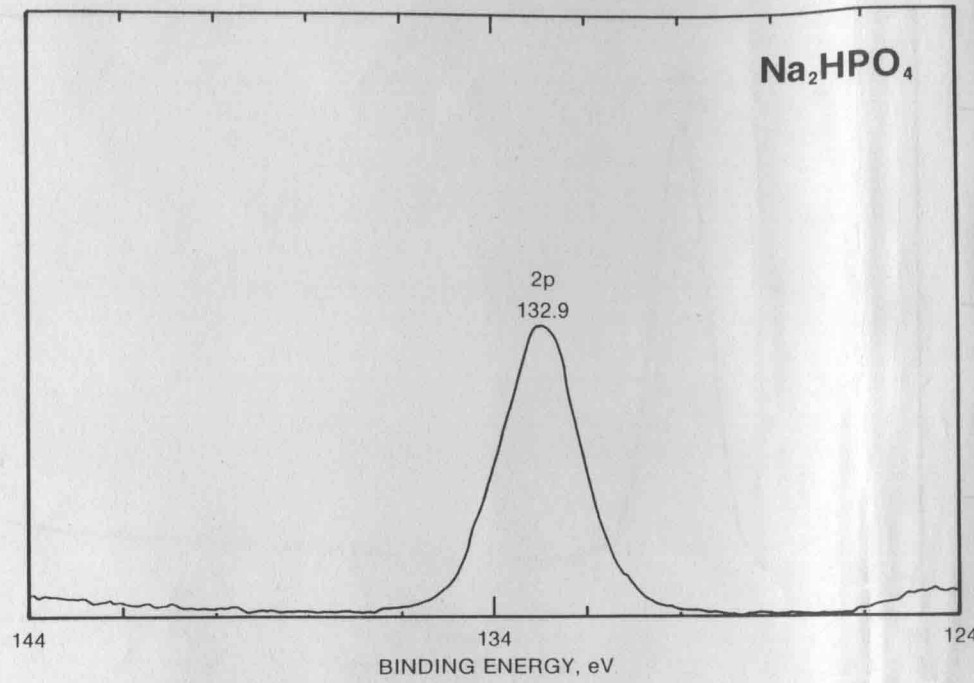
COMPOUND	2p BINDING ENERGY, eV	REF.
Al		Φ
Al		MSC
Al		B2
Al		LMK
AlB ₂		MEC
Al ox		B2
Al ₂ O ₃		Φ
Al ₂ O ₃		NSL
Al ₂ O ₃		MSC
Al ₂ O ₃		NGD
γ-Al ₂ O ₃		OW
γ-Al ₂ O ₃		MWJ
γ-Al ₂ O ₃		NH2
Na zeolite		MWJ
ZnAl ₂ O ₄		OW
CoAl ₂ O ₄		BGD
CoAl ₂ O ₄		PCL
NiAl ₂ O ₄		NH2
Al ₂ (WO ₄) ₃		NH2
Al ₂ (MoO ₄) ₃		PCL
Al acac ₃		MSC
Al ₂ S ₃		MSC
AlI ₃		MSC
AlBr ₃		MSC
AlCl ₃		MSC
AlF ₃		MSC
K ₃ AlF ₆		MSC



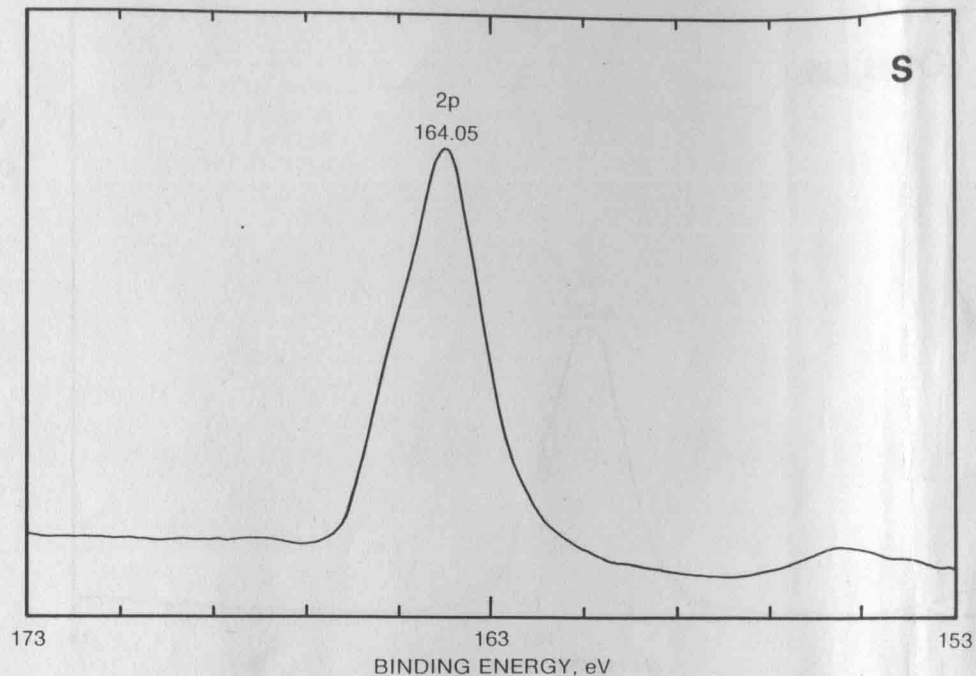
COMPOUND	2p BINDING ENERGY, eV										REF.
	98					103				108	
Si											Φ
Si											CDB
Si											MV
Si											HBB
Ph ₄ Si											MV
Ph ₄ Si											NBA
Ph ₄ Si											GCH
Ph ₃ SiSiPh ₃											NBA
Ph ₃ SiSiPh ₃											GCH
Me ₃ SiSiMe ₃											GCH
Me ₃ SiNHSiMe ₃											GCH
Me ₃ SiOSiMe ₃											GCH
Ph ₂ Si(OH) ₂											NBA
Ph ₃ SiOH											NBA
Ph ₃ SiOSiPh ₃											GCH
Et ₃ SiCl											GCH
(Me ₂ SiO) ₅											GCH
(Me ₂ SiO) _n											NBA
Et ₃ SiF											GCH
Et ₂ SiCl ₂											GCH
EtSiCl ₃											GCH
SiI ₄											NBA
Na zeolite silicates											MWJ CDB
SiS ₂											MV
SiO ₂											Φ
SiO ₂											NSL
SiO ₂											MV
SiO ₂											CDB
SiO ₂ gel											MWJ
Na ₂ SiF ₆											NSL
K ₂ SiF ₆											MV



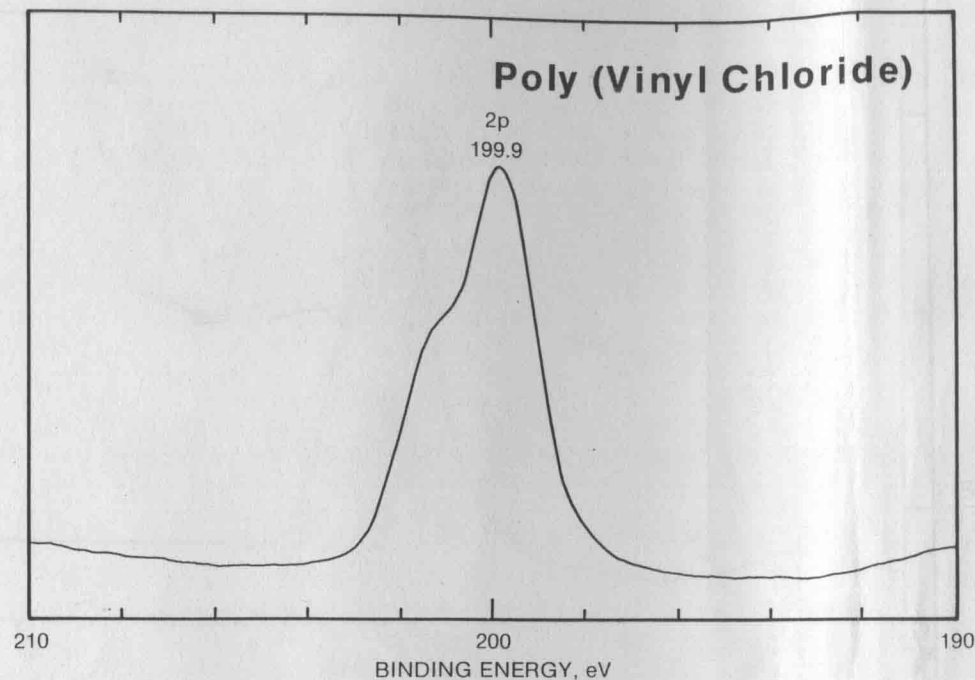
COMPOUND	2p BINDING ENERGY, eV							REF.
	128			133			138	
CrP								PHH
MnP								PHH
GaP								Φ
BP								PHH
P								PHH
Ph ₃ P								PHH
Pt(PPh ₃) ₄								R
PtCl ₂ (PPh ₃) ₂								R
PdCl ₂ (PPh ₃) ₂								KBM
PdBr ₂ (PPh ₃) ₂								KBM
PdI ₂ (PPh ₃) ₂								KBM
PtO ₂ (PPh ₃) ₂								R
PtCl ₄ (PMePh ₂) ₂								LB
Ph ₃ PS								PHH
Bu ₄ PCI								PHH
Ph ₄ PBr								SRH
Ph ₃ PO								PHH
(PhS) ₃ PS								MSA
(PhS) ₃ P								PHH
P ₃ N ₅								PHH
Ph ₂ PO(OH)								NBK
BaHPO ₃								PHH
K ₂ HPO ₄								PHH
Na ₂ HPO ₄								Φ
KH ₂ PO ₄								PHH
POBr ₃								PHH
Na ₃ PO ₄								MVS
Na ₄ P ₂ O ₇								MVS
(NaPO ₃) ₃								PHH
NaPO ₃								PHH
(PhO) ₃ PO								PHH
P ₂ O ₅								NGD
NH ₄ PF ₆								PHH
KPF ₆								SMA
PBr ₅								PHH



COMPOUND	2p BINDING ENERGY, eV						REF.
	160		165			170	
Na ₂ S							LHJ
p-NaSC ₆ H ₄ NO ₂							LHJ
PbS							SFS
FeS							B4
KFeS ₂							B4
WS ₂							NH2
MoS ₂							PCL
Na ₂ SSO ₃							LHJ
PhNHCSNHPH							PNS
PhSCMe ₃							PLB
Ph ₃ PS							MSA
tetrahydrothiophene							MMP
PhSH							LHJ
Ph ₂ S							LHJ
PhSSPh							LHJ
S ₈							LHJ
S _n							Φ
thiophene							LHJ
S ₂ N ₂							SDI
Me ₃ SI							LHJ
O ₂ NC ₆ H ₄ SO ₂ Na							LHJ
Ph ₂ SO							LHJ
BzMeSO							ML
PhSO ₂ Na							LHJ
Na ₂ SO ₃							LHJ
Na ₂ SSO ₃							LHJ
BzMeSO ₂							ML
SO ₂							LHJ
PhSO ₃ Na							W1
p-H ₂ NC ₆ H ₄ SO ₂ NH ₂							LHJ
PhSO ₃ Me							LHJ
Na ₂ SO ₄							LHJ
FeSO ₄							LHJ
Fe ₂ (SO ₄) ₃							LHJ



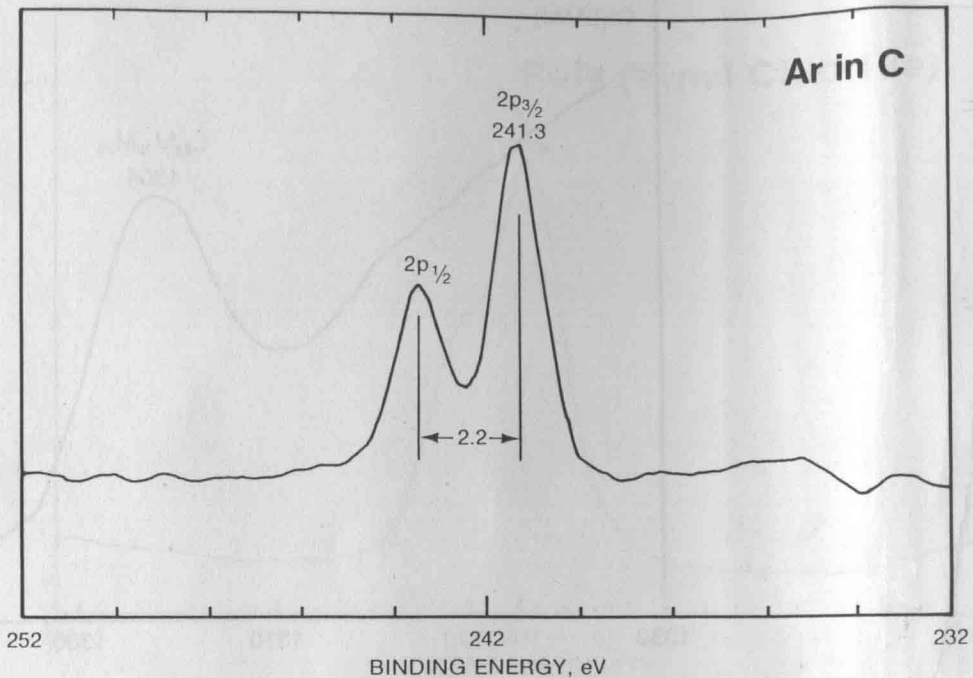
COMPOUND	2p BINDING ENERGY, eV						REF.
	195	199	203	207	211		
CsCl							NSM
RbCl							NSM
KCl							MVS
NaCl							MVS
LiCl							MVS
guanidine HCl							LR
AgCl							KI1
CuCl							KI1
NiCl ₂							KI1
HgCl ₂							N
ZnCl ₂							N
CdCl ₂							N
FeCl ₂							KI1
FeCl ₃							KI1
CuCl ₂							KI1
K ₂ MoCl ₆							CH1
K ₂ SnCl ₆							CH1
K ₂ ReCl ₆							CH1
K ₂ PtCl ₆							CH1
K ₂ PtCl ₄							R
Pt(PPh ₃) ₂ Cl ₂							R
Pt(PEt ₃) ₂ Cl ₄							R
Co(NH ₃) ₆ Cl ₃							N
poly (vinyl chloride)							Φ
chloranil							OYK
tetrachlorohydroquinone							OYK
chloranil-pyridine							NH1
(p-ClC ₆ H ₄) ₃ PO							HWV
PhCl							CKM
o-C ₆ H ₄ Cl ₂							CKA
C ₆ Cl ₆							CKA
PhCCl ₃							CKM
KClO ₃							MVS
CsClO ₄							MVS
LiClO ₄							MVS



Argon, Ar

Atomic Number **18**

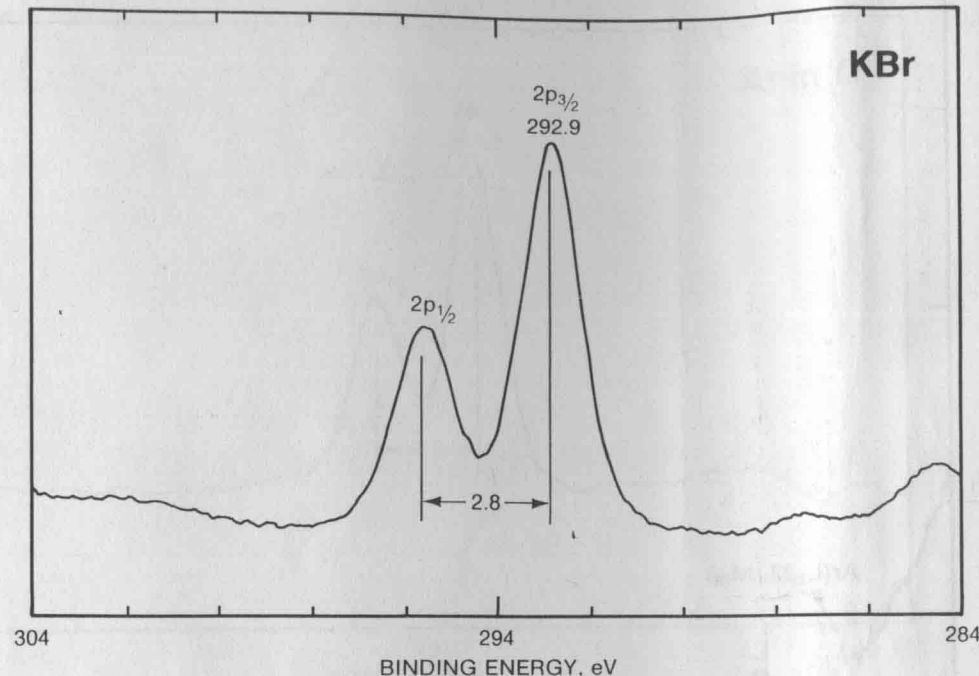
COMPOUND	2p _{3/2} BINDING ENERGY, eV								REF.	
	235				240				245	
Ar (in C)										Φ
Ar (in C)										KW
Ar (in Fe)										W2
Ar (in Cu)										CH2
Ar (in Ag)										KW
Ar (in Ag)										CH2
Ar (in Pt)										KW
Ar (in Au)										CH2
Ar (in Au)										KW



Potassium, K

Atomic Number **19**

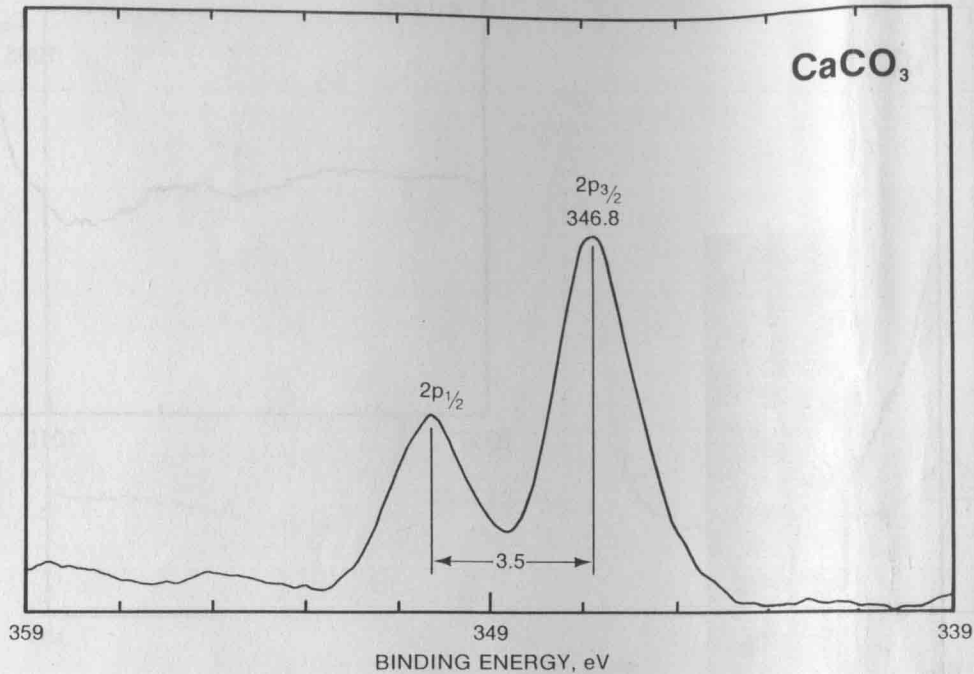
COMPOUND	2p _{3/2} BINDING ENERGY, eV								REF.
	290				295			300	
KBr									Φ
KBr									NSM
KCl									NSM
KCl									NSL
KF									W1
KN ₃									SGR
KNO ₂									NSM
KNO ₃									NSL
K ₂ Pt(CN) ₄									R
K ₂ PtCl ₄									R
K ₂ PtCl ₆									R
K ₂ PtCl ₆									CH1
K ₂ ReCl ₆									CH1
K ₂ IrCl ₆									CH1
K ₂ SnCl ₆									CH1
K ₂ MoCl ₆									CH1
K ₂ TiF ₆									W1



Calcium, Ca

Atomic Number **20**

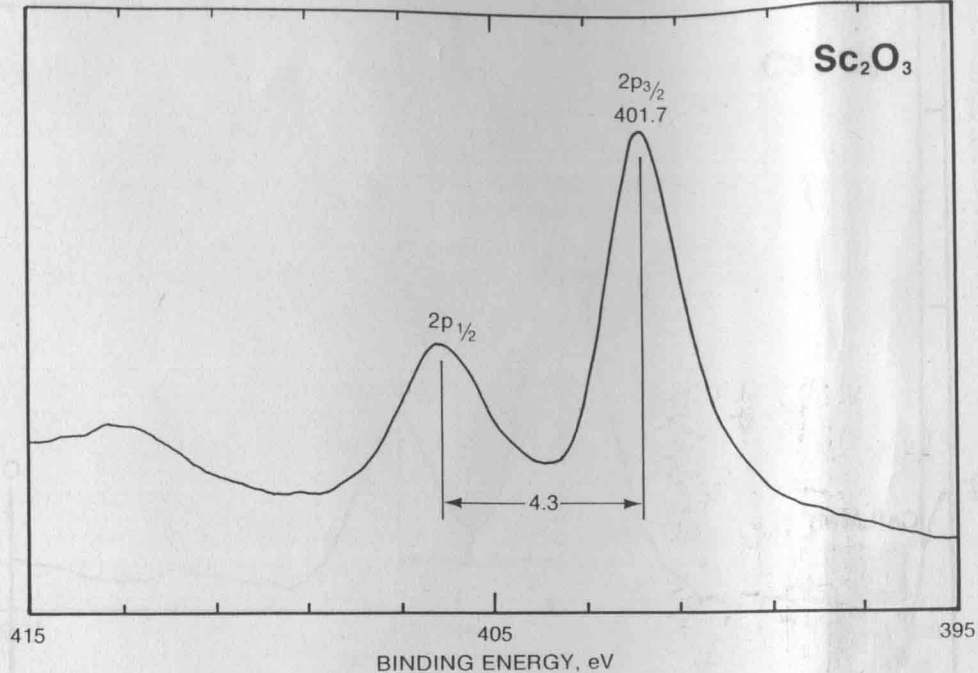
COMPOUND	$2p_{3/2}$ BINDING ENERGY, eV	REF.
CaO	345	Φ
CaCO ₃	346.8	Φ
CaSO ₄	347.5	W1
CaCl ₂	348.5	W1
CaF ₂	349.5	NSL
CaF ₂	350.5	Φ



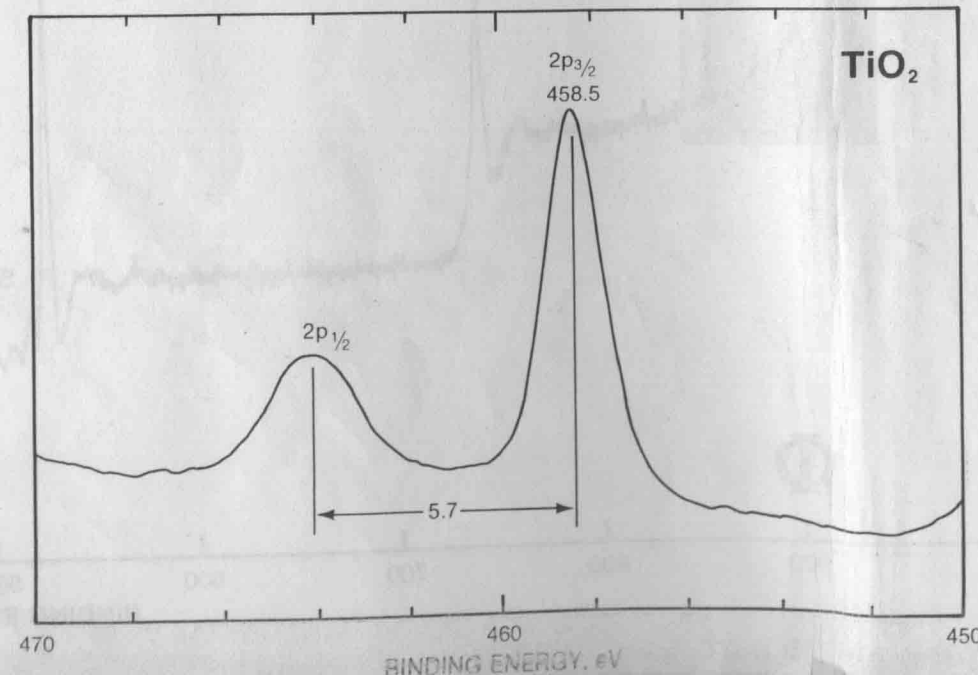
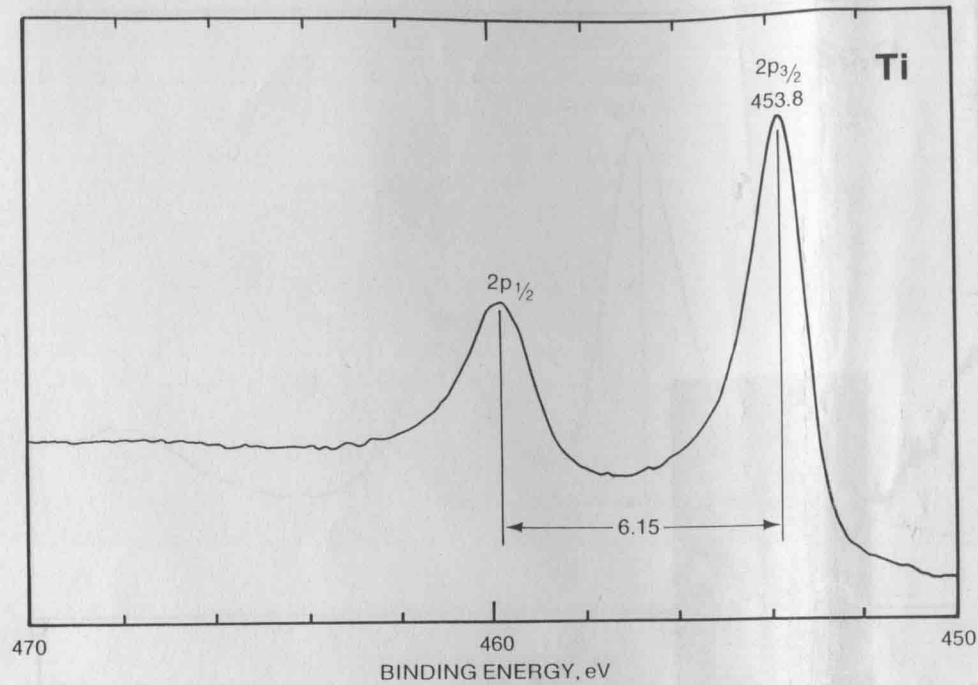
Scandium, Sc

Atomic Number **21**

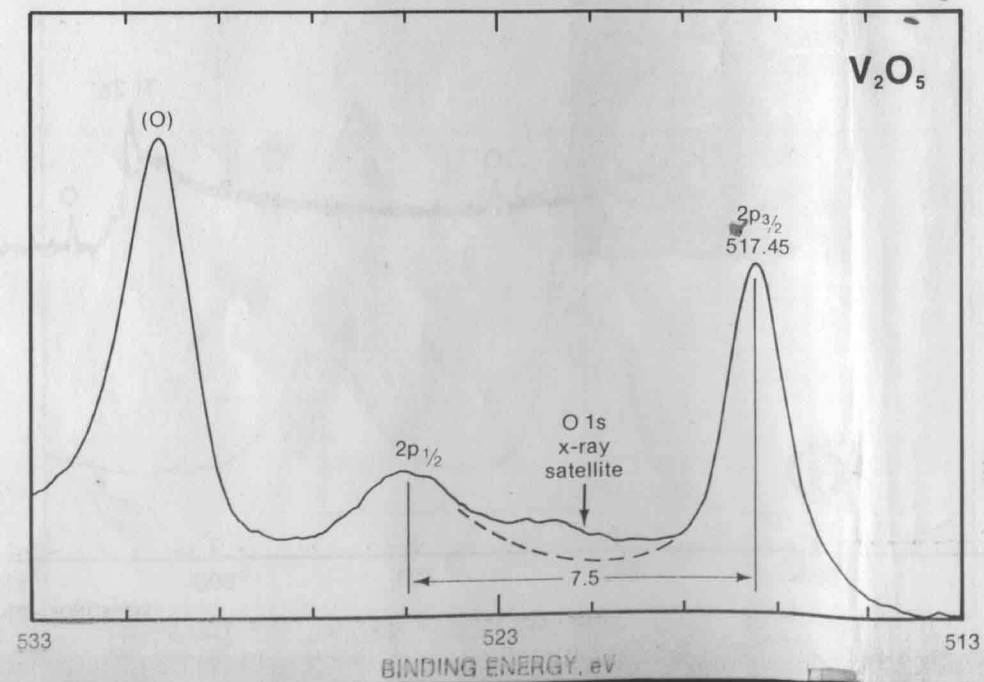
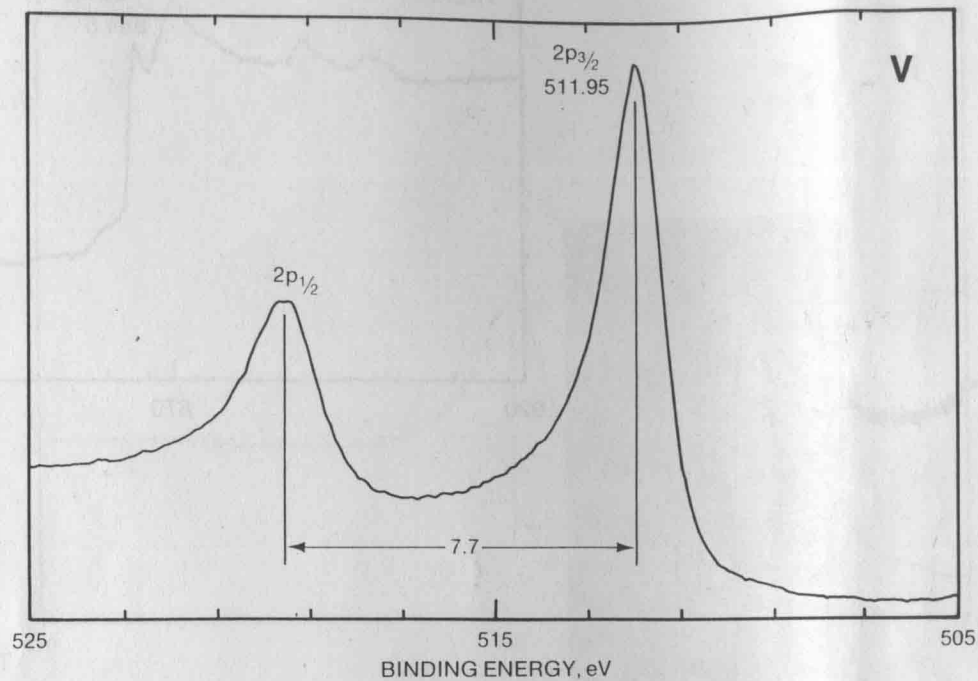
COMPOUND	$2p_{3/2}$ BINDING ENERGY, eV								REF.	
	395				400				405	
Sc										WM
$C_5H_5ScC_8H_8$										WM
$(C_5H_5)_2ScCl$										WM
ScN										STA
Sc_2O_3										Φ
Sc_2O_3										NGD
Sc_2O_3										WM
$ScCl_3$										W1
ScF_3										W1



COMPOUND	2p _{3/2} BINDING ENERGY, eV										REF.	
	453						458				463	
Ti												Φ
Ti												RH1
Ti												NSC
Ti												PJH
TiH ₂												NSC
TiB ₂												RH1
TiB ₂												MEC
TiS												FUM
TiC												RH1
TiC												IK1
TiN												RH1
TiN												STA
TiO												FUM
C ₅ H ₅ TiC ₇ H ₇												GSM
(C ₅ H ₅) ₂ TiCl												GSM
BaTiO ₃												MWI
PbTiO ₃												MWI
SrTiO ₃												MWI
CaTiO ₃												MWI
TiO ₂												RH1
TiO ₂												NSC
TiO ₂												Φ
TiO ₂												MWI
(C ₅ H ₅) ₂ TiCl ₂												GSM
TiCl ₃												GSM
Na ₂ TiF ₆												W1

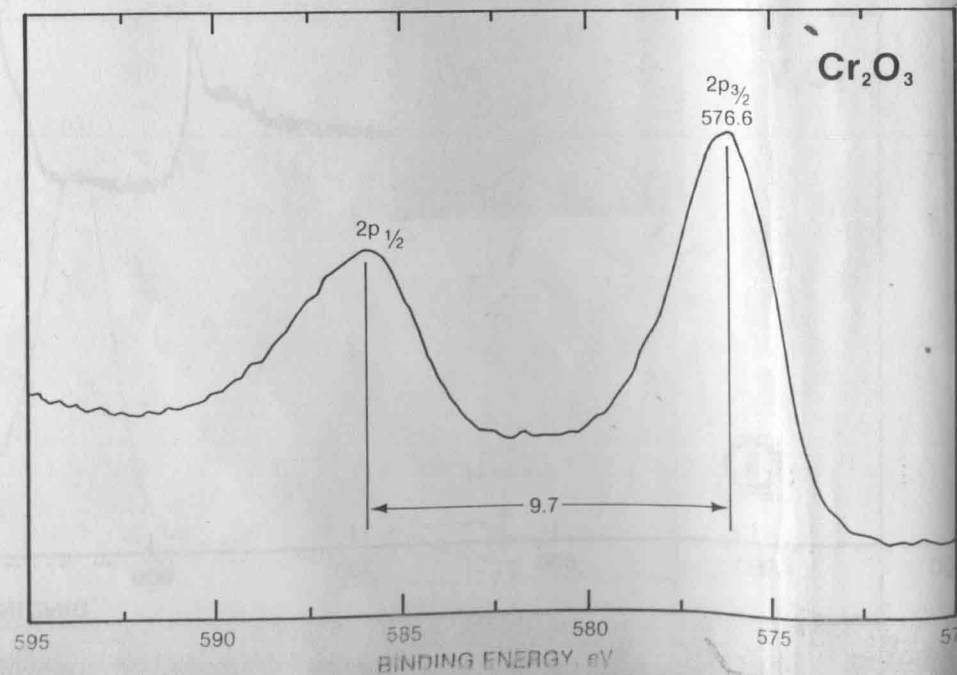
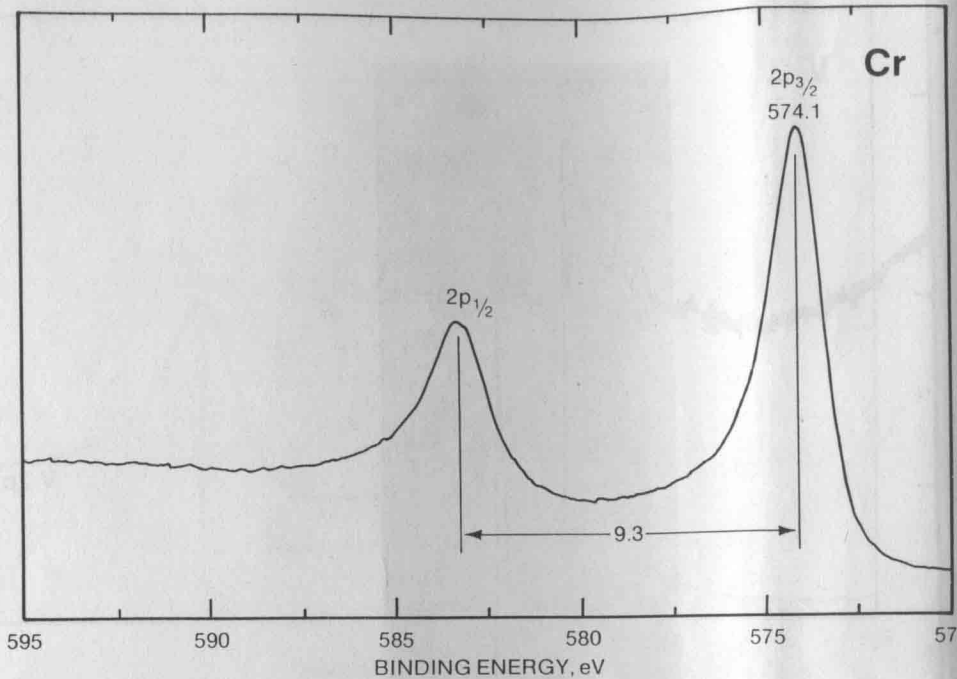


COMPOUND	2p _{3/2} BINDING ENERGY, eV										REF.
	510									520	
V											Φ
V											RH2
V											RR
V											LFS
V											NSC
V											GSM
V											FS
V											SA
V											HVB
VB ₂											MEC
VC											FUM
VS											RH2
VN											RR
VN											STA
(C ₅ H ₅) ₂ V											BCD
(C ₅ H ₅) ₂ V											GSM
(C ₅ H ₅) ₂ VCl											GSM
V acac ₃											LFS
VO acac ₃											LFS
VOSO ₄											LFS
VOCl ₂											LFS
VO ₂											SA
VO ₂											GSM
V ₂ O ₅											LFS
V ₂ O ₅											SA
V ₂ O ₅											NSC
V ₂ O ₅											Φ
V ₂ O ₅											NGD

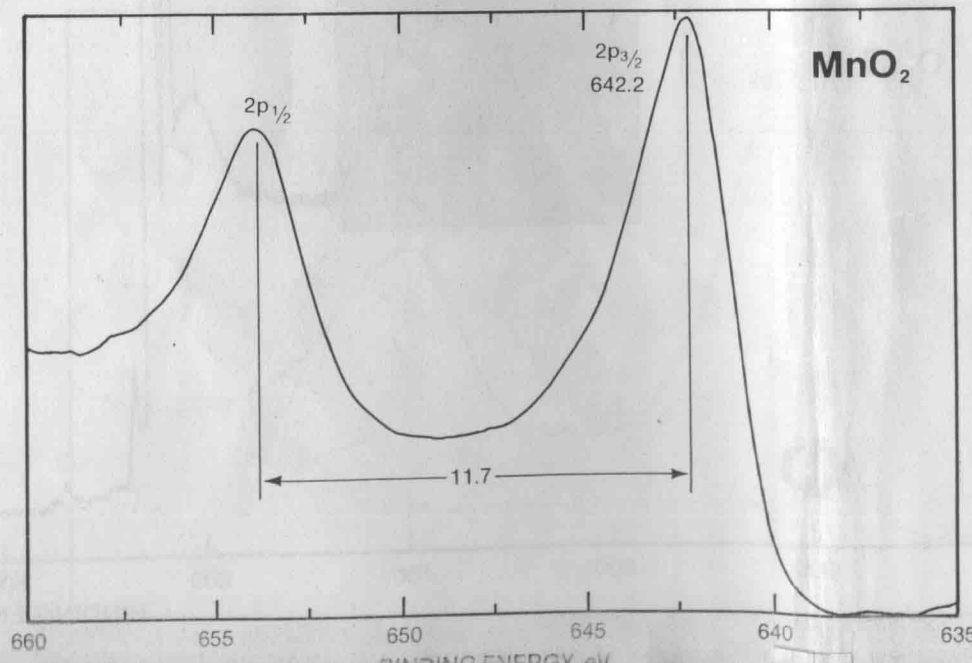
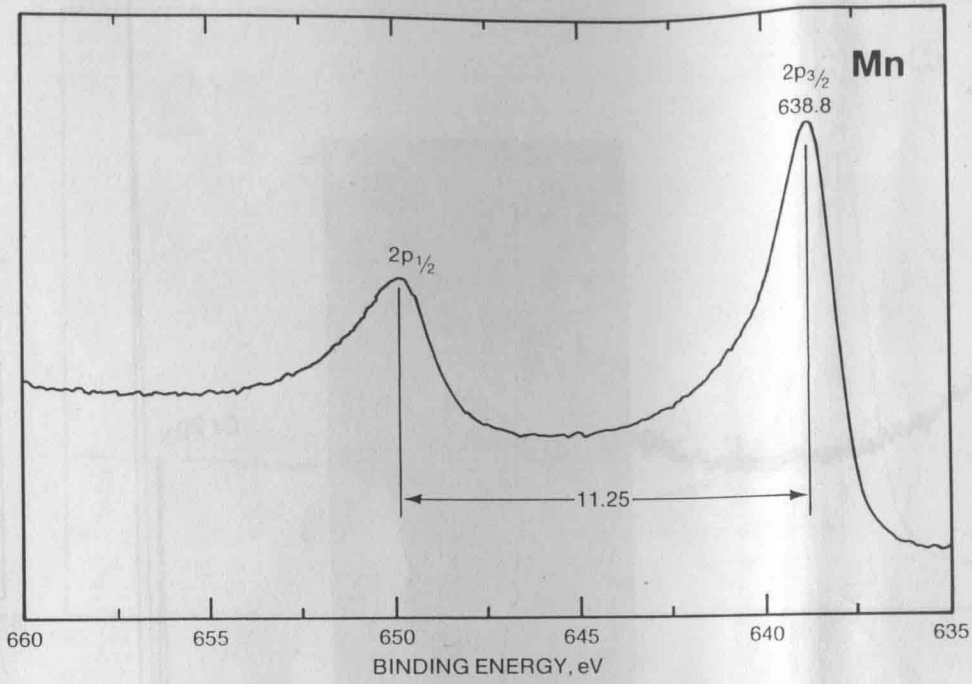


Chromium, Cr Atomic Number 24

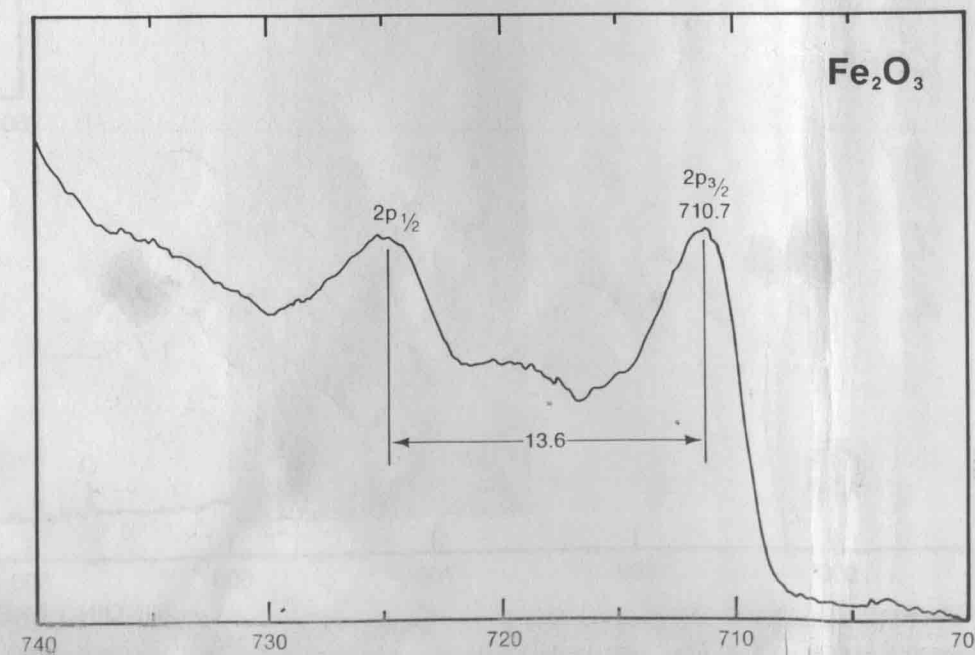
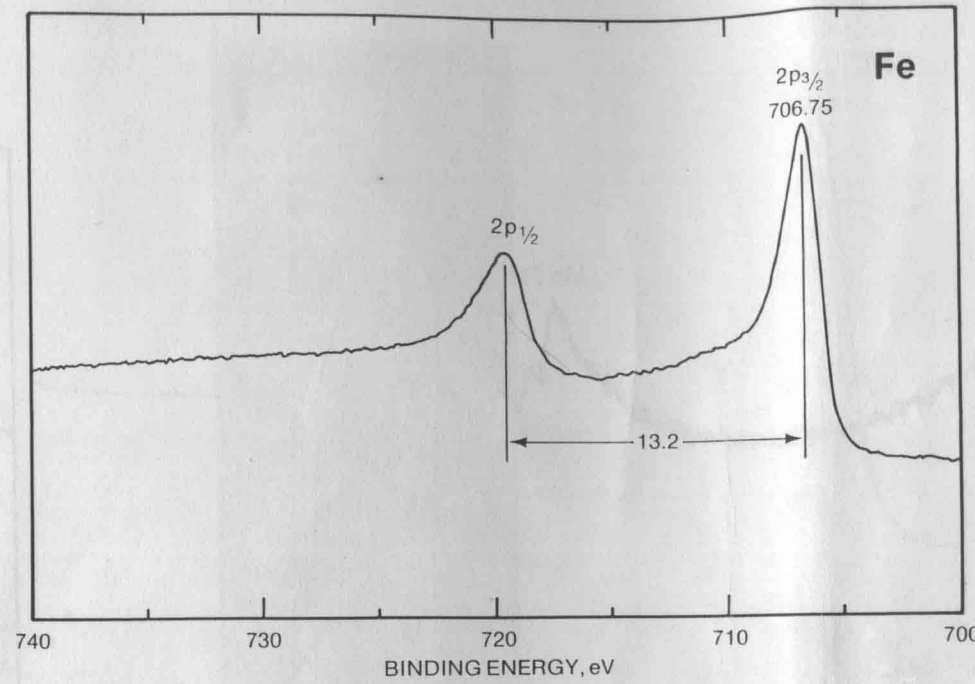
COMPOUND	2p _{3/2} BINDING ENERGY, eV						REF.
	573			578		583	
Cr							Φ
CrB ₂							MEC
Cr ₂ S ₃							CSC
Cr(C ₆ H ₆) ₂							CDH
Cr(C ₇ H ₇)(C ₅ H ₅)							CDH
Cr(C ₅ H ₅) ₂							CDH
CrN							RR
CrN							STA
Cr(CO) ₅ NH ₃							BC3
Cr(CO) ₅ C ₆ H ₆							PFD
Cr(CO) ₆							PFD
Cr(C ₅ H ₅) ₂ Cl ₂							GSM
Cr acac ₃							ZH
K ₃ Cr(CN) ₆							ZH
K ₃ Cr(CN) ₆							CSC
CrOOH							IIK
CrO ₂							IIK
Cr ₂ O ₃							IIK
Cr ₂ O ₃							AT1
CuCrO ₂							AT1
LiCrO ₂							AT1
NaCrO ₂							AT1
CrI ₃							CSC
CrBr ₃							CSC
CrCl ₃							CSC
CrCl ₃							AT1
Cr(NH ₃) ₆ Cl ₃							AT1
K ₃ Cr(C ₂ O ₄) ₂							AT1
Cr(urea) ₆ Cl ₃							AT1
CrO ₃							AC1
BaCrO ₄							AC1
K ₂ CrO ₄							AC1
K ₂ Cr ₂ O ₇							AC1
Cr(CF ₃ COCF ₃) ₃							AT1
CrF ₃							CSC



COMPOUND	2p _{3/2} BINDING ENERGY, eV										REF.	
	635										645	
Mn												Φ
Mn(C ₅ H ₅) ₂												CDH
Mn(C ₅ H ₅)(CO) ₃												CDH
MnS												CSC
MnS												FUM
α-MnS												A
β-MnS												A
Mn ₂ (CO) ₁₀												VWV
BrMn(CO) ₅												VWV
[BrMn(CO) ₄] ₂												VWV
BrMn(CO) ₄ (PPh ₃) ₃												VWV
Mn ₂ (CO) ₈ (PPh ₃) ₂												VWV
MnI ₂												A
K ₃ Mn(CN) ₆												CSC
MnBr ₂												CSC
MnBr ₂												A
MnCl ₂												CSC
MnCl ₂												A
MnO												FUM
MnO												OHI
MnO												A
MnO												CSC
γ-MnOOH												OHI
Mn ₂ O ₃												OHI
Mn ₂ O ₃												CSC
Mn ₃ O ₄												OHI
MnO ₂												Φ
MnO ₂												OHI
MnO ₂												CSC
MnO ₂												A
KMnO ₄												CSC
MnF ₂												A
MnF ₂												CSC
MnF ₃												CSC



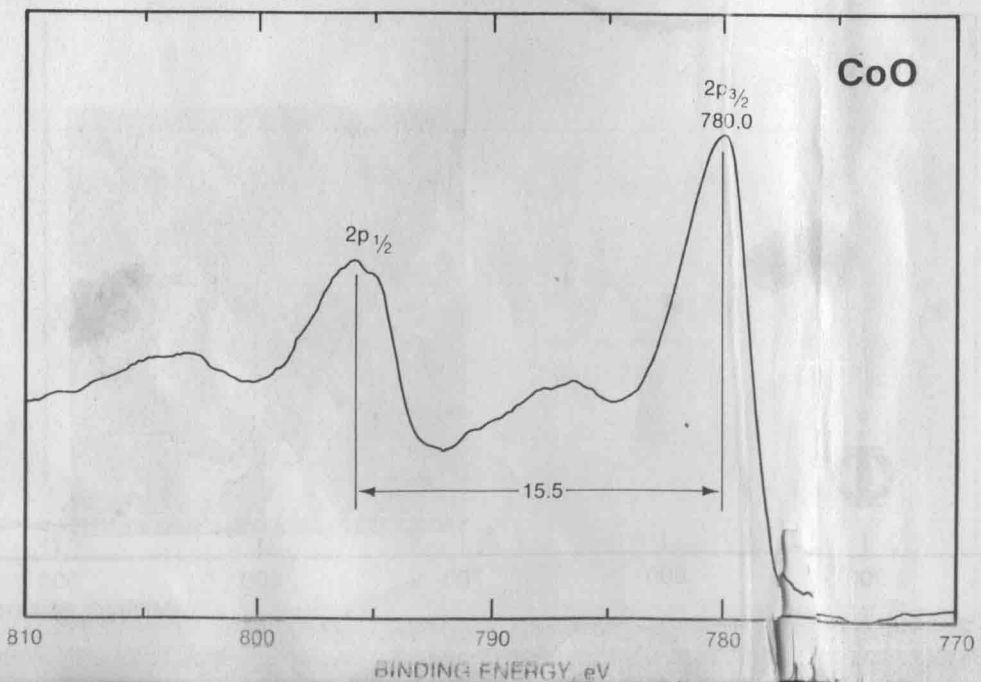
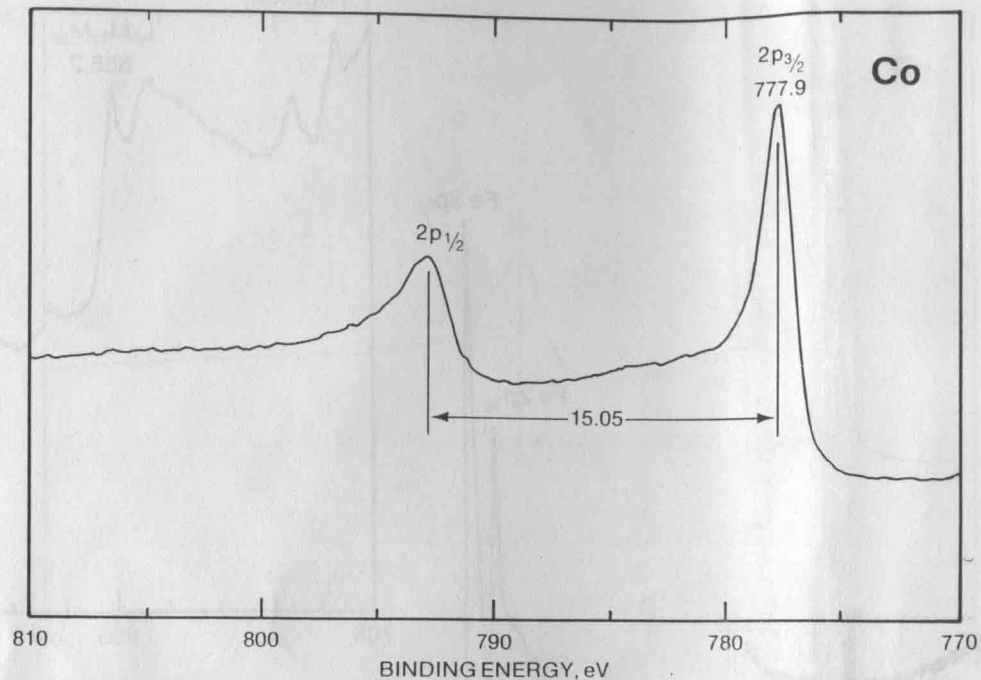
COMPOUND	2p _{3/2} BINDING ENERGY, eV										REF.
	705				710					715	
Fe											Φ
Fe ₂ B											MEC
FeB											MEC
FeS ₂											B4
Fe(C ₅ H ₅) ₂											CDH
Fe(C ₅ H ₅) ₂ I ₃											CDH
Zn ₂ Fe(CN) ₆											CSC
K ₄ Fe(CN) ₆											CSC
K ₄ Fe(CN) ₆											V
Na ₃ Fe(CN) ₅ N ₂											YN2
Na ₂ Fe(CN) ₅ NO											YN2
K ₃ Fe(CN) ₆											V
Fe ₂ P ₂ S ₆											B4
KFeS ₂											B4
FeS											CSC
Fe(CO) ₅											BC1
Fe(CO) ₂ (NO) ₂											BC1
Fe(C ₅ H ₅)(CO) ₃ BPh ₄											CDH
FeO											MZ
FeO											AC2
Fe ₂ O ₃											Φ
Fe ₂ O ₃											MZ
Fe ₂ O ₃											AC2
FeOOH											AC2
FeOOH											MZ
Fe ₃ O ₄											AC2
NaFeO ₂											AC2
NiFe ₂ O ₄											MZ
FeBr ₂											CSC
FeBr ₃											CSC
FeCl ₂											CSC
FeCl ₃											CSC
FeF ₂											CSC
FeF ₃											CSC
K ₃ FeF ₆											CSC



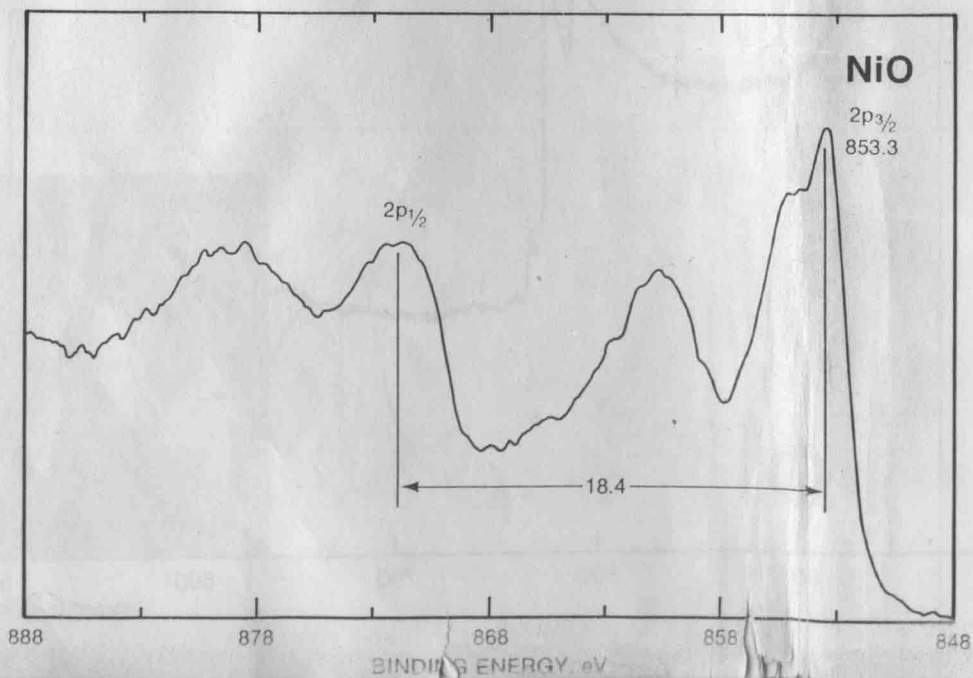
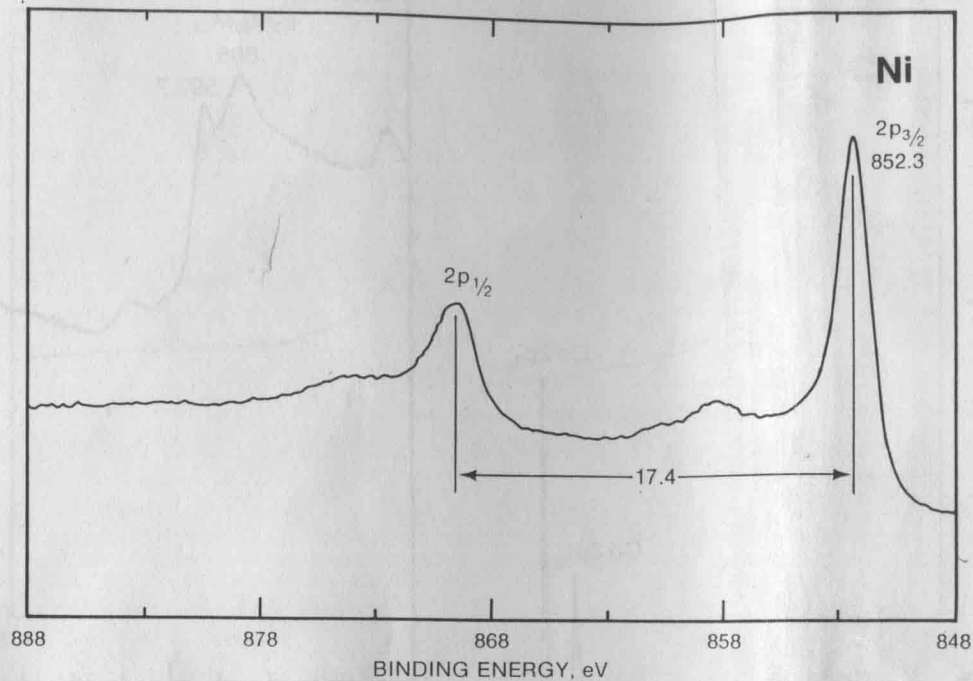
Cobalt, Co

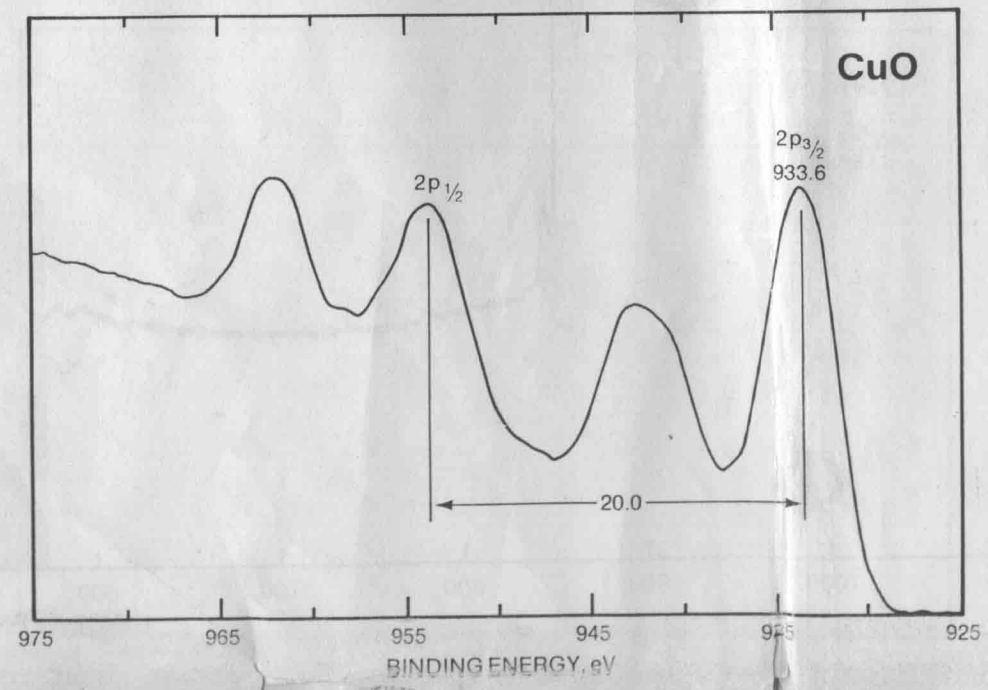
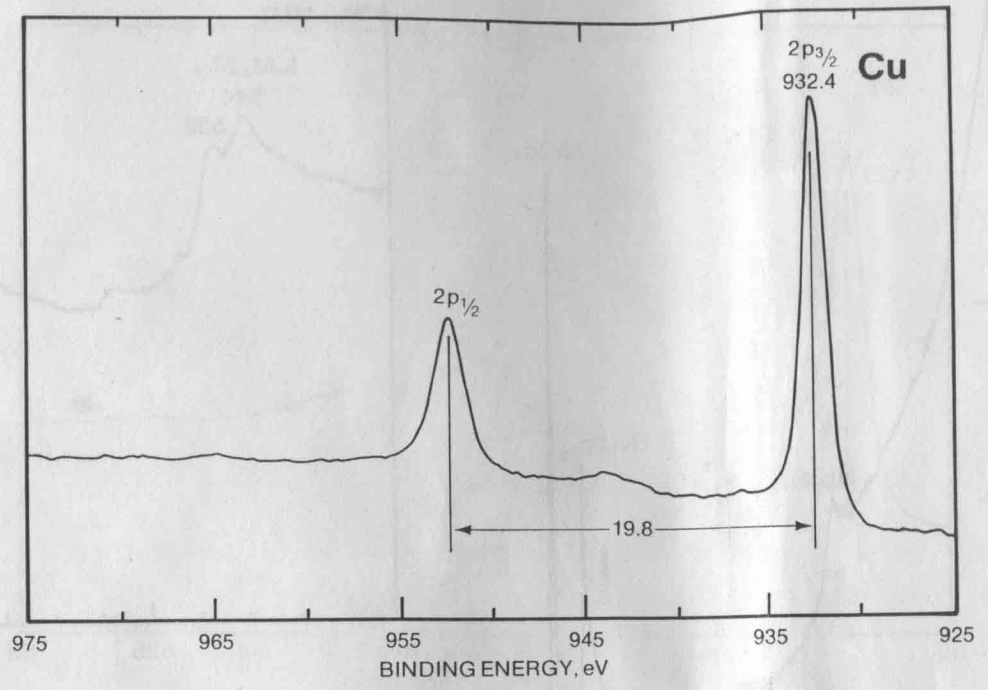
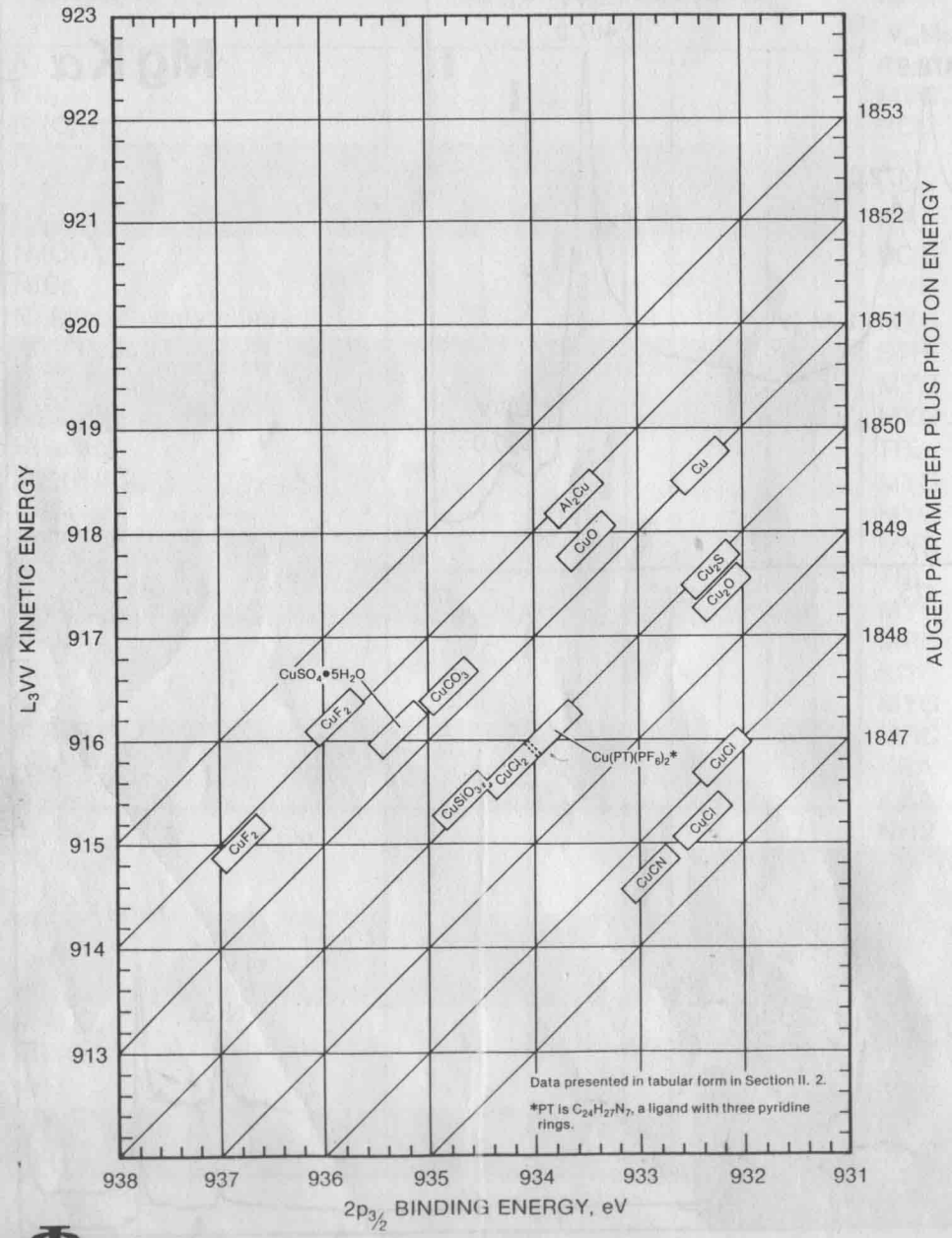
Atomic Number 27

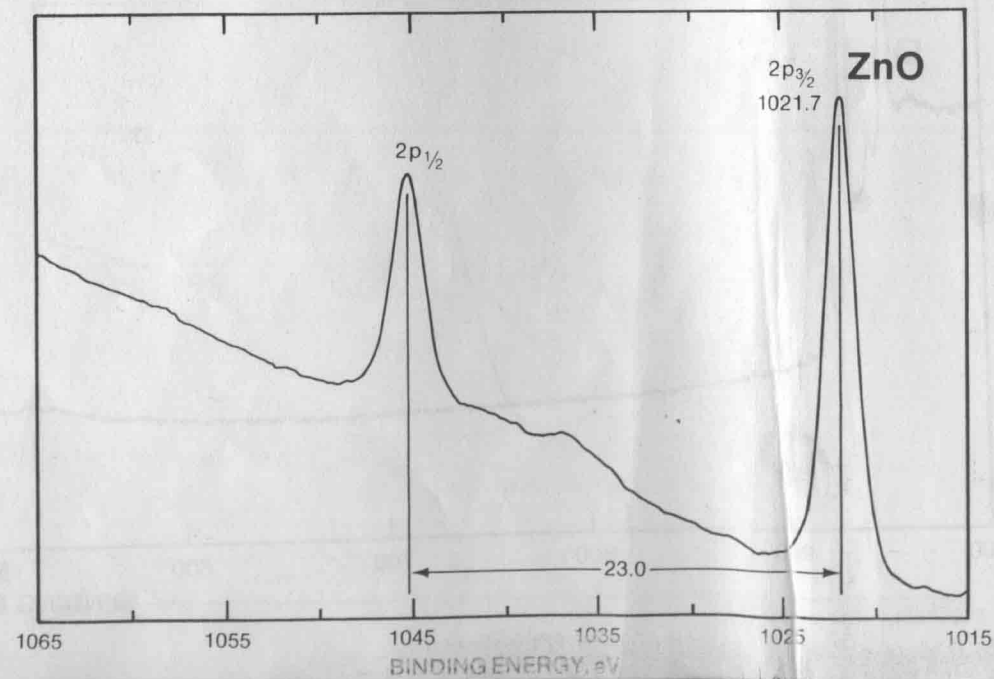
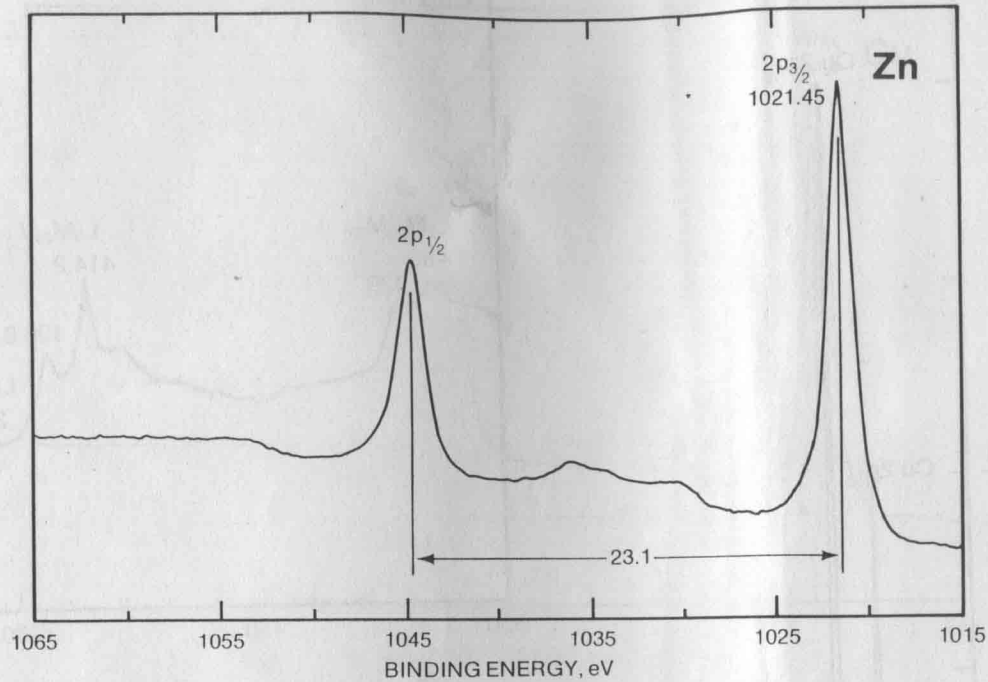
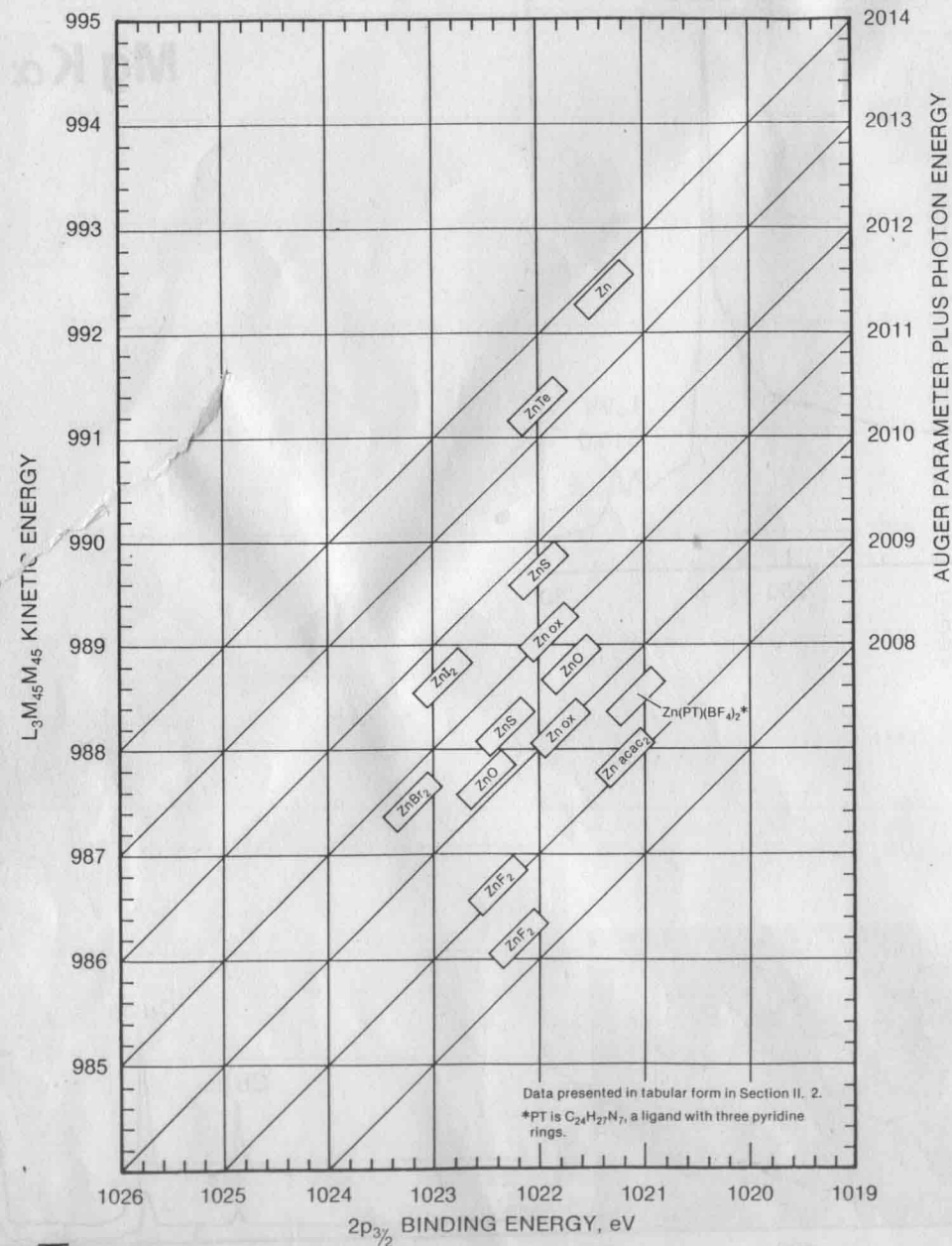
COMPOUND	$2p_{3/2}$ BINDING ENERGY, eV	REF.
Co	777.9	Φ
Co ₂ B		MEC
CoB		MEC
Co(C ₅ H ₅) ₂		BCD
Co(salen)		BDT
Co(bae)		BDT
Co(CO) ₃ NO		BC1
Co ₃ O ₄		Φ
Co ₃ O ₄		OH
CoO		MC
CoO		K
CoO		OH
Co(OH) ₂		MC
CoOOH		MC
Co ₂ O ₃		MC
CoFe ₂ O ₄		MC
CoCr ₂ O ₄		OH
CoMn ₂ O ₄		OH
ZnCo ₂ O ₄		OH
CoAl ₂ O ₄		MC
CoAl ₂ O ₄		OH
CoAl ₂ O ₄		PCL
Cs ₂ CoCl ₄		NBM
CoMoO ₄		PCL
Co(NH ₃) ₃ Cl ₃		NBM
Co(NH ₃) ₆ Cl ₃		NBM
Co(NH ₃) ₆ Cl ₃		CSC
K ₃ Co(CN) ₆		OH
HCoI ₂ (dimethylglyoxime)		BF
HCoBr ₂ (dimethylglyoxime)		BF
HCoCl ₂ (dimethylglyoxime)		BF
K ₃ Co(NO ₂) ₆		NBM
CoF ₂		CSC
CoF ₃		CSC
CoF ₂ ·4H ₂ O		NBM



COMPOUND	2p _{3/2} BINDING ENERGY, eV							REF.
	851			856			861	
Ni								Φ
NiI ₂								MYG
Ni(C ₅ H ₅) ₂								BCD
Ni(PPh ₃) ₂								TRL
NiS								NH2
Ni ₂ S ₃								NH2
Ni(CO) ₄								BC1
NiBr ₂								MYG
Ni (dimethylglyoxime)								MYG
NiCl ₂ (NBU ₃) ₂								STH
NiCl ₂ (PBU ₃) ₂								MYG
NiCl ₂ (PPh ₃) ₂								MYG
Ni acac ₂								TRL
Me ₄ NNiCl ₃								MYG
Ni(CN) ₂								MYG
K ₂ Ni(CN) ₄								MYG
ZnNi(CN) ₄								TRL
NiCO ₃								MYG
NiO								MRC
NiO								KD
NiO								MYG
Ni(OH) ₂								MRC
Ni(OH) ₂								KBA
Ni ₂ O ₃								KBA
Ni ₂ O ₃								NH2
Ni ₂ O ₃								KD
NiCl ₂								TRL
NiFe ₂ O ₄								MC
Ni(NO ₃) ₂								TRL
NiSO ₄								MYG
NiAl ₂ O ₄								NH2
NiWO ₄								NH2
NiF ₂								MYG
(NH ₄) ₂ NiF ₄								MYG
K ₂ NiF ₆								TRL





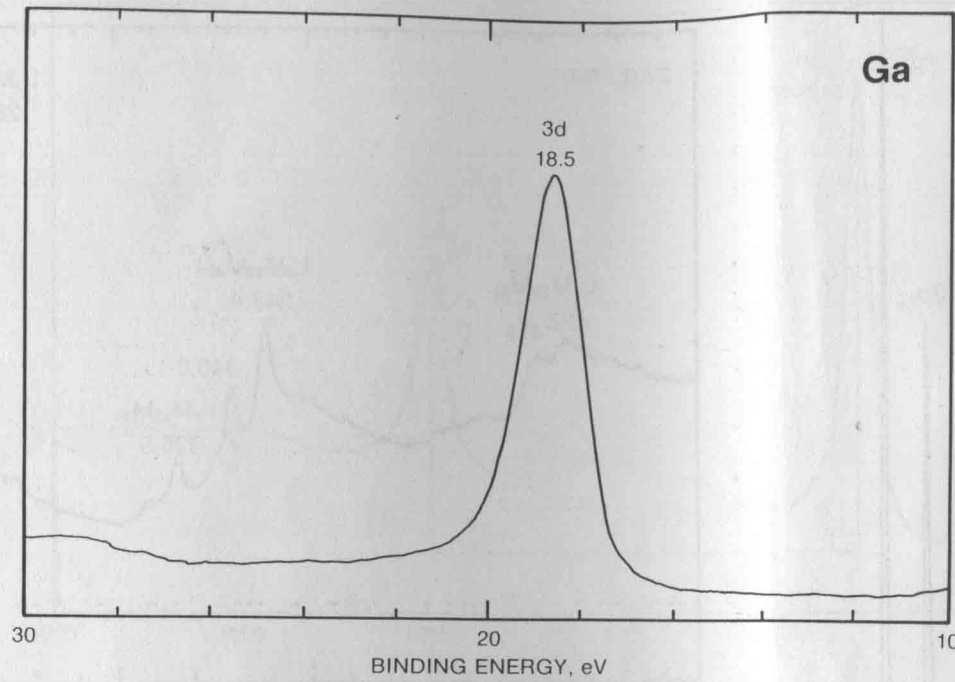


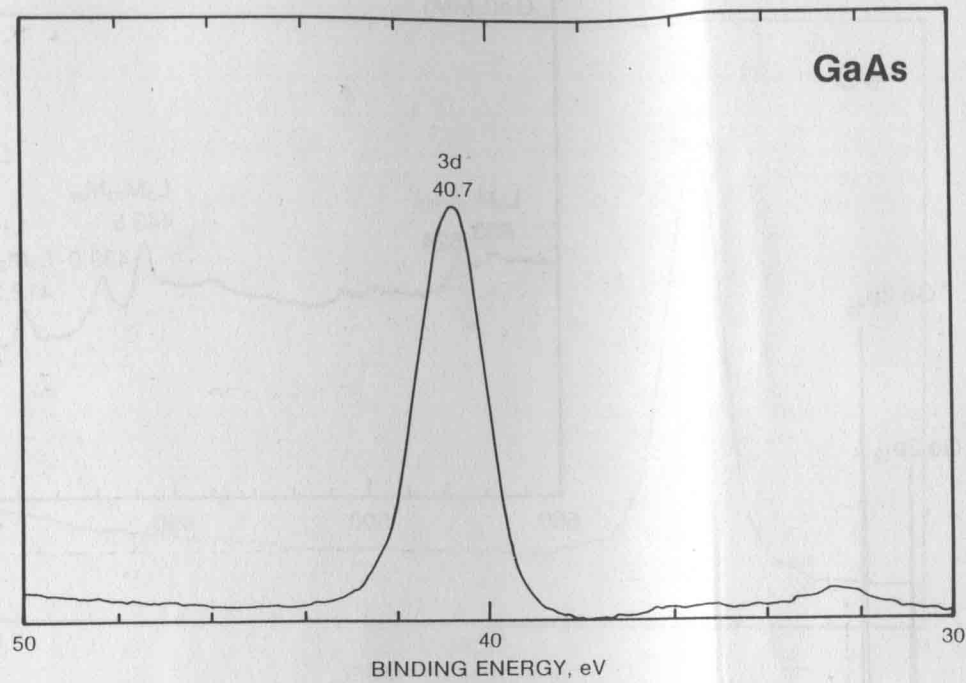
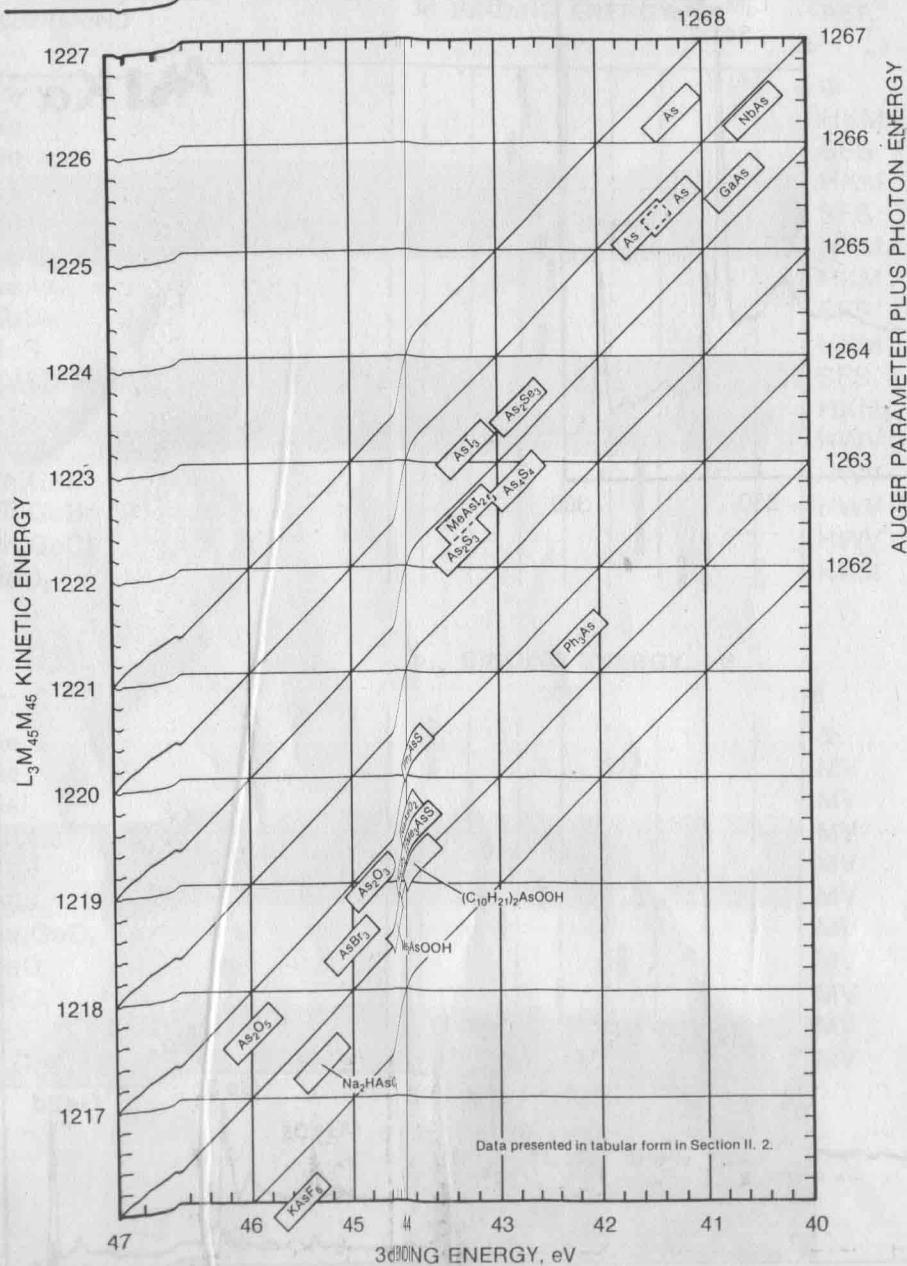
Gallium, Ga

Atomic Number **31**

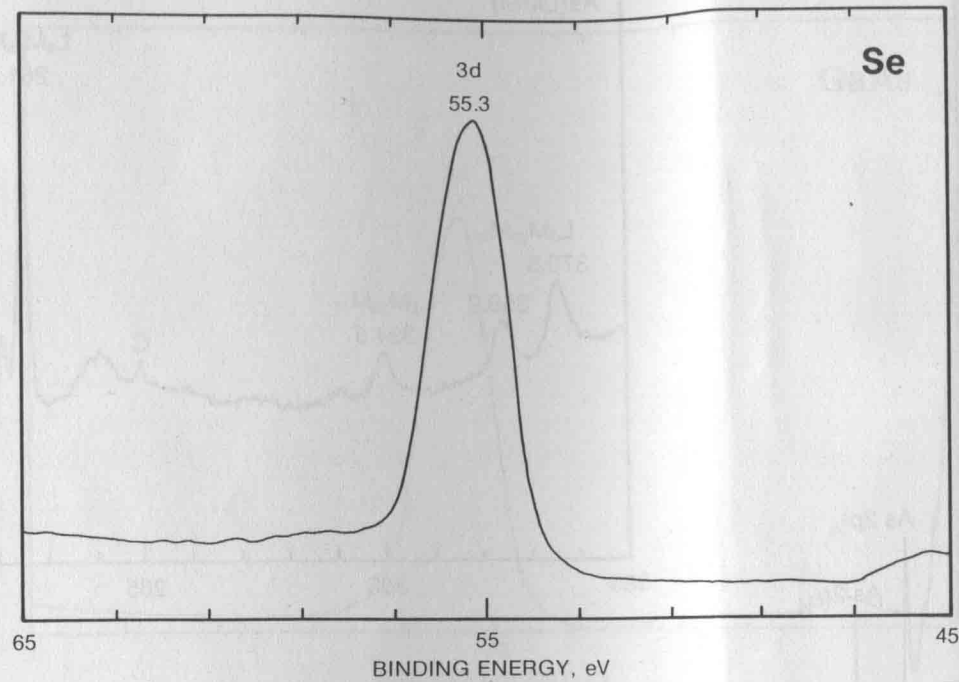
COMPOUND	3d BINDING ENERGY, eV										REF.		
	15									20		25	
Ga													Φ
Ga													S1
Ga													LBH
GaAs													LBH
GaP													Φ
GaP													LBH
GaSb													LBH
Ga ₂ O ₃													LBH

	3p _{3/2} BINDING ENERGY, eV												
	100									105		110	
Ga													S1
Ga ₂ O ₃													MSC
Ga ₂ O ₃													NGD
Ga ₂ O ₃													S1
Ga acac ₃													MSC
Ga ₂ S ₃													MSC
GaI ₃													MSC
GaBr ₃													MSC
GaF ₃													MSC





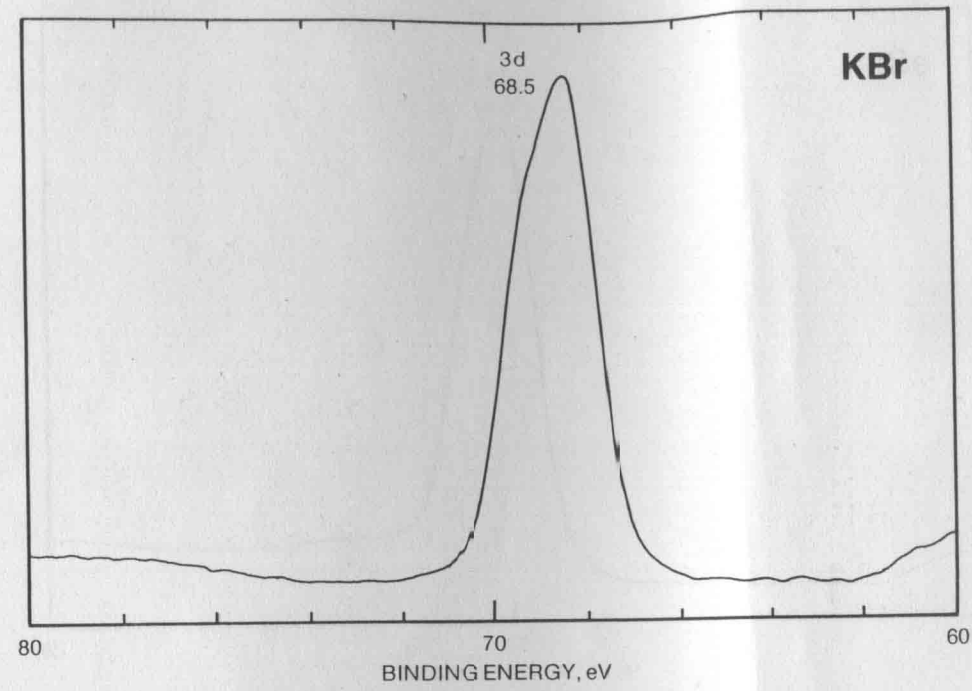
COMPOUND	3d BINDING ENERGY, eV										REF.	
	52					57					62	
PbSe												SFS
PbSe												WSP
SnSe												SFS
SnSe												WSP
Bi ₂ Se ₃												DR
NbSe ₂												B3
Nb ₃ Se ₄												B3
GeSe												SFS
As ₂ Se ₃												WSP
Se												SFS
Se												B3
Se												Φ
Se												WSP
Se												MTH
C ₁₆ H ₃₃ SeSeC ₁₆ H ₃₃												MTH
BrC ₆ H ₄ SeC ₆ H ₄ Br												MTH
HOC ₂ H ₄ SSeSC ₂ H ₄ OH												WSP
Na ₂ SeS ₄ O ₆												WSP
(PhCH ₂) ₂ SeO												MTH
(BrC ₆ H ₄) ₂ SeO												MTH
[HOOC(CH ₂) ₄] ₂ SeO												MTH
C ₁₆ H ₃₃ SeO(OH)												MTH
PhSeO(OH)												MTH
Ph ₂ SeCl ₂												MTH
Na ₂ SeO ₃												W1
Na ₂ SeO ₃												WSP
ClC ₆ H ₄ SeO(OH)												MTH
H ₂ SeO ₃												MTH
SeO ₂												MTH
SeO ₂												WSP
ClC ₆ H ₄ SeO ₂ (OH)												MTH
Na ₂ SeO ₄												W1
Na ₂ SeO ₄												WSP



Bromine, Br

Atomic Number **35**

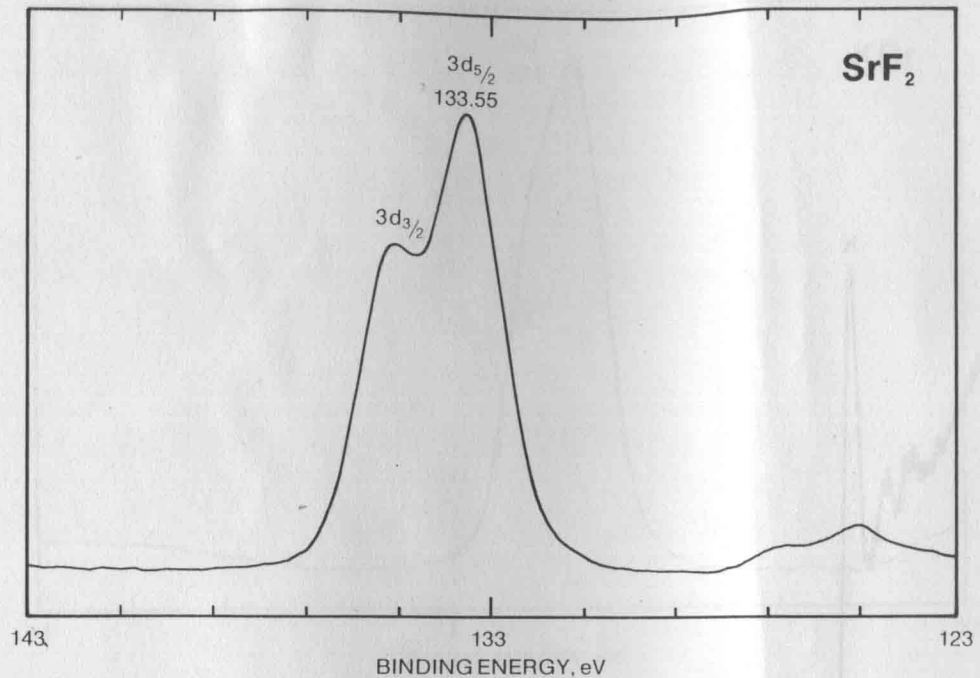
COMPOUND	3d BINDING ENERGY, eV					REF.
	67		72		77	
KBr						Φ
KBr						MVS
CsBr						MVS
RbBr						MVS
NaBr						MVS
LiBr						MVS
HgBr ₂						N
CdBr ₂						N
ZnBr ₂						N
C ₁₆ H ₃₃ Me ₃ NBr						W1
C ₃ H ₅ Ni(PPH ₃)Br						TRL
Pd(PPh ₃) ₂ Br ₂						N
Pd(NH ₃) ₂ Br ₂						N
Pt(NH ₃) ₂ Br ₂						N
Pt(NH ₃) ₄ Br ₂						N
Co(NH ₃) ₆ SbBr ₆						T
Rb ₃ Sb ₂ Br ₉						T
Cs ₃ Sb ₂ Br ₉						T
K ₂ PdBr ₄						N
K ₂ PtBr ₄						N
K ₂ PtBr ₆						N
bromanil						OYK
bromphenol blue						W1
KBrO ₃						W1



Strontium, Sr

Atomic Number **38**

COMPOUND	$3d_{5/2}$ BINDING ENERGY, eV	REF.
SrF ₂	133.55	Φ
SrF ₂	133.55	W1



Yttrium, Y

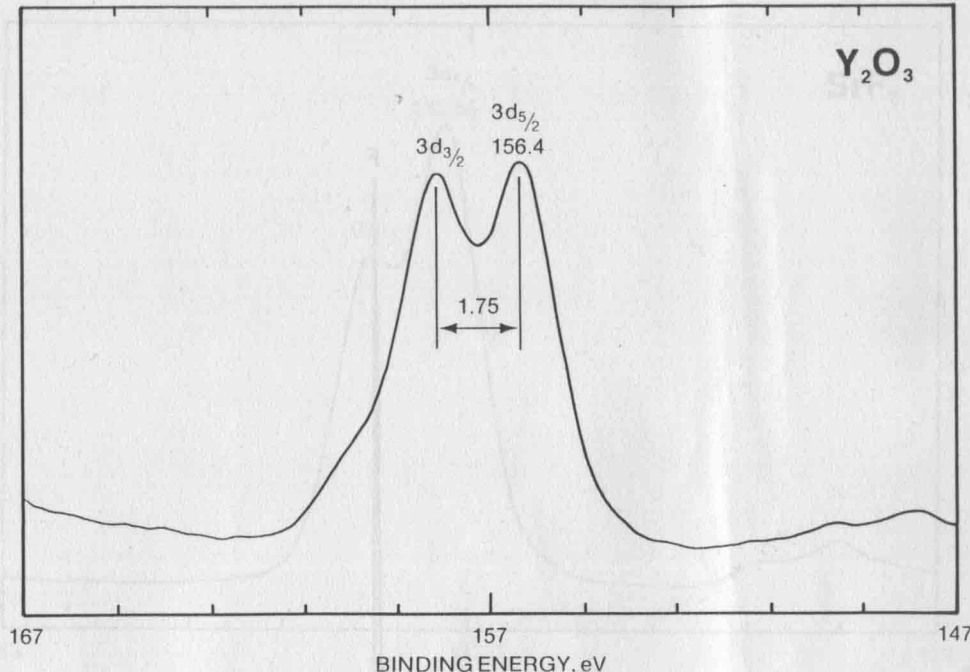
Atomic Number **39**

COMPOUND

$3d_{5/2}$ BINDING ENERGY, eV

REF.

COMPOUND	155	160	165	REF.
Y_2O_3				Φ
Y_2O_3				NGD
YF_3				W1

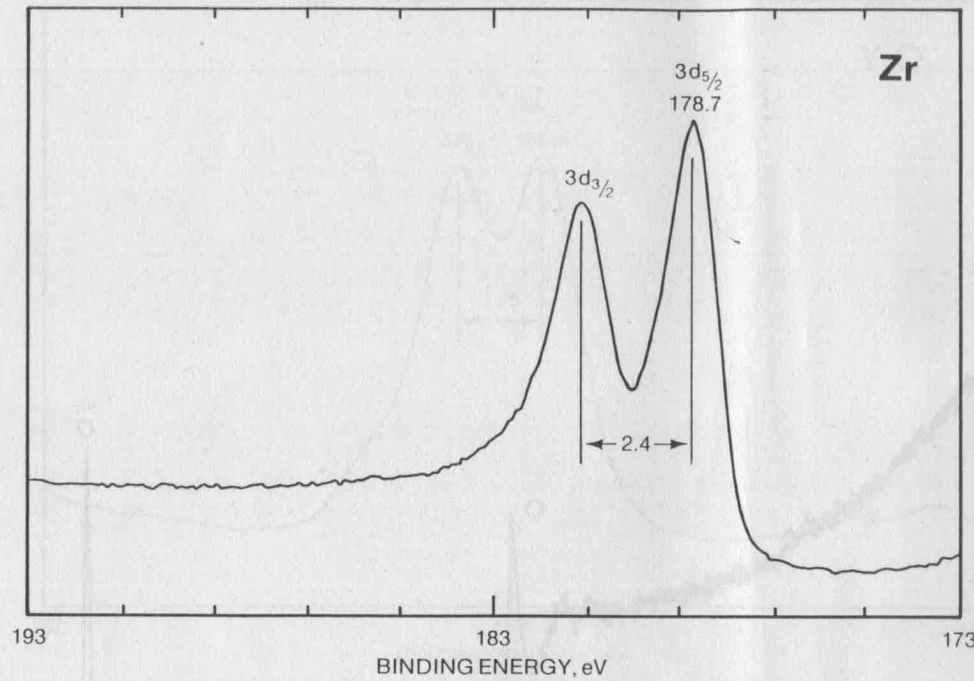


Zirconium, Zr

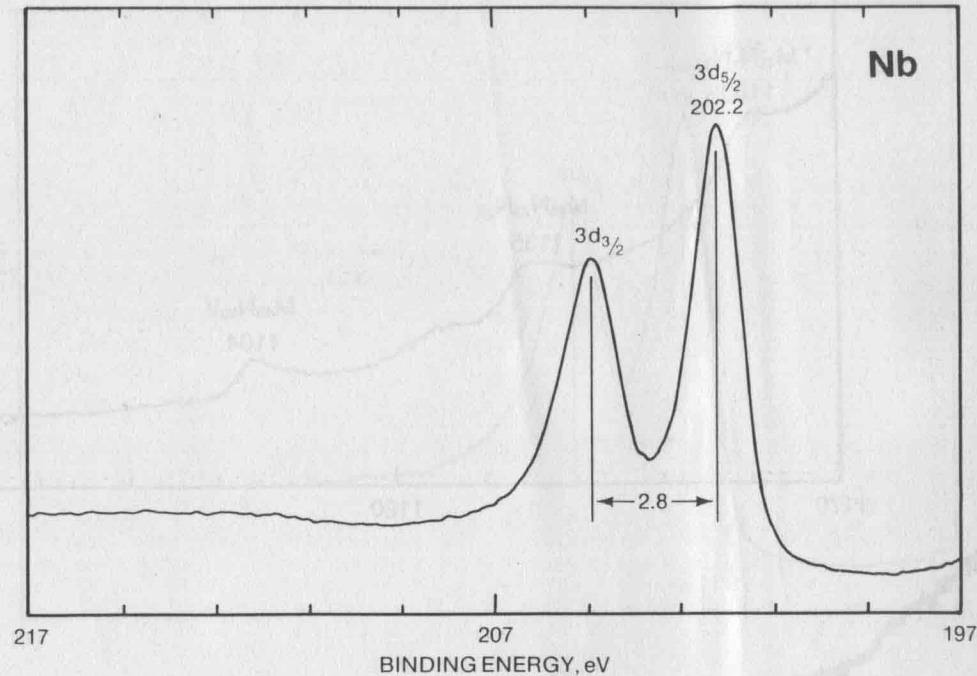
Atomic Number

40

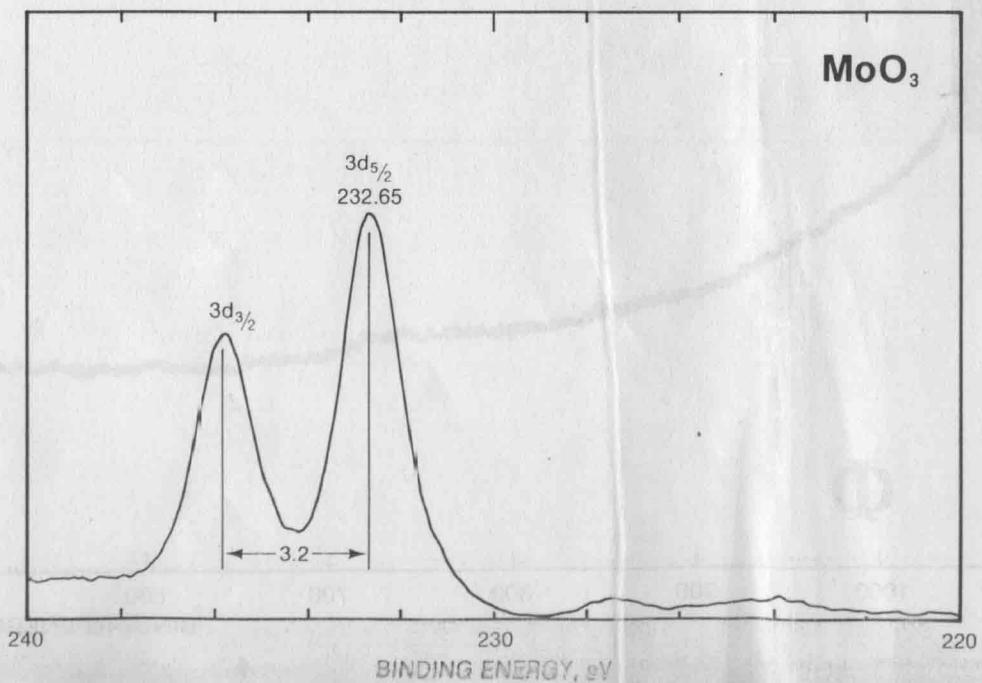
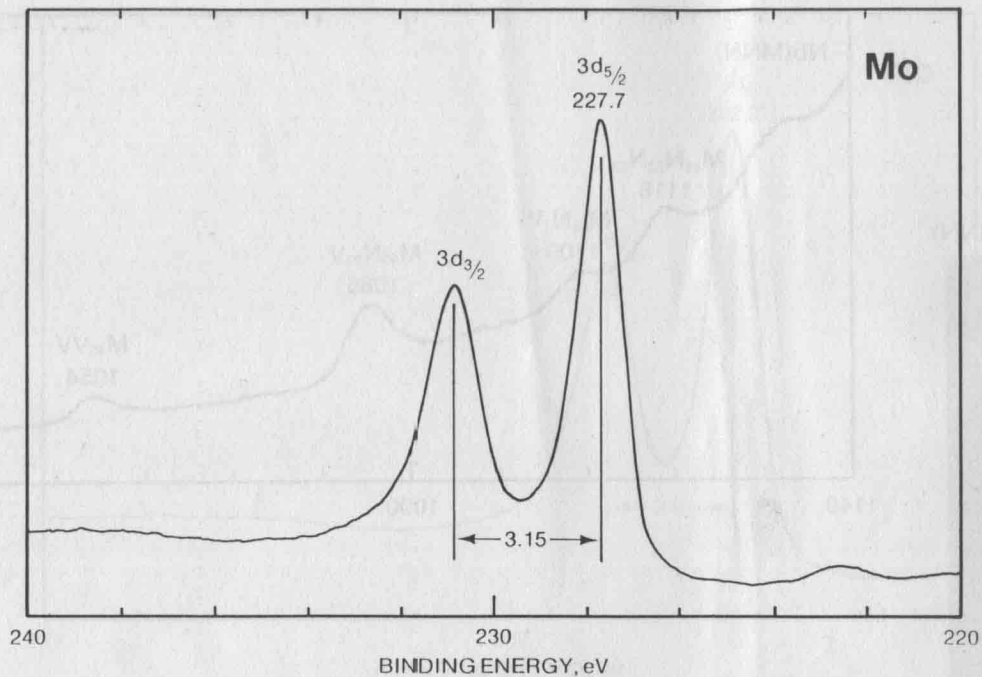
COMPOUND	3d _{5/2} BINDING ENERGY, eV										REF.
	175				180					185	
Zr											Φ
Zr											NSC
ZrH ₂											NSC
ZrO ₂											NSC
ZrO ₂											NGD
Zr ₄ (OH) ₈ alanine ₈ Cl ₈ ·12H ₂ O											KNP
K ₃ ZrF ₇											NKB
K ₂ ZrF ₆											NKB
Na ₂ ZrF ₆											W1
KZrF ₅ ·H ₂ O											NKB
ZrF ₄											NKB



COMPOUND	$3d_{5/2}$ BINDING ENERGY, eV	REF.
Nb	202.2	Φ
Nb	202.2	RH2
Nb	202.2	SPB
Nb	202.2	B3
Nb	202.2	MSC
Nb	202.2	FCF
Nb	202.2	NSC
NbH ₂	202.2	NSC
NbC	202.2	RH2
NbO	202.2	SPB
NbO	202.2	FCF
NbO ₂	202.2	FCF
NbO ₂	202.2	SPB
KNbO ₃	202.2	MSC
Nb ₂ O ₅	202.2	SPB
Nb ₂ O ₅	202.2	MSC
Nb ₂ O ₅	202.2	FCF
Nb ₂ O ₅	202.2	NGD
NbBr ₅	202.2	MSC
NbCl ₅	202.2	MSC
K ₂ NbF ₇	202.2	MSC
NbF ₅	202.2	MSC



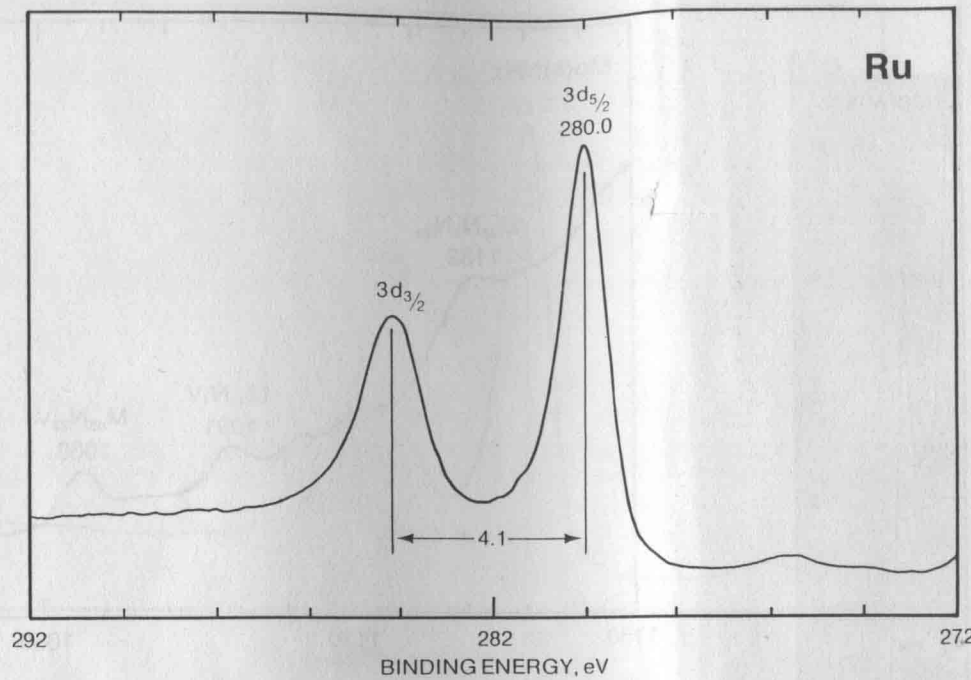
COMPOUND	3d _{5/2} BINDING ENERGY, eV		REF.
	225	230	235
Mo			Φ
Mo(CO) ₄ bipyridyl			GM
[C ₅ H ₅ Mo(CO) ₃] ₂			GM
Mo(CO) ₄ (PBU ₃) ₂			GM
Mo(CO) ₅ PPh ₃			HB
MoB ₂			MEC
MoSe ₂			GM
C ₇ H ₈ Mo(CO) ₃			GM
C ₇ H ₇ Mo(CO) ₃ ⁺ BF ₄ ⁻			GM
MoCl ₂ (CO) ₃ (PPh ₃) ₂			HB
MoS ₂			GM
MoS ₂			PCL
MoCl ₃ (PMe ₂ Ph) ₃			LB
MoCl ₃ (C ₅ H ₅ N) ₃			CEL
MoO ₂			PCL
MoO ₂			KBA
MoCl ₃			GM
MoCl ₄			GM
MoCl ₅			GM
MoCl ₂ (NO) ₂ (PPh ₃) ₂			HB
MoCl ₄ (PPh ₃) ₂			HB
MoOCl ₃ (C ₅ H ₅ N) ₂			CEL
MoOCl ₃ (PPh ₃) ₂			HB
MoCl ₄ (C ₅ H ₅ N) ₂			CEL
MoCl ₄ bipyridyl			CEL
MoO ₂ Cl ₂ bipyridyl			CEL
MoO ₂ acac ₂			GM
Na ₂ MoO ₄			NSL
Na ₂ MoO ₄ ·2H ₂ O			GM
Al ₂ (MoO ₄) ₃			PCL
CoMoO ₄			PCL
MoO ₃			GM
MoO ₃			Φ
MoO ₃			PCL
(NH ₄) ₆ Mo ₇ O ₂₄ ·4H ₂ O			GM



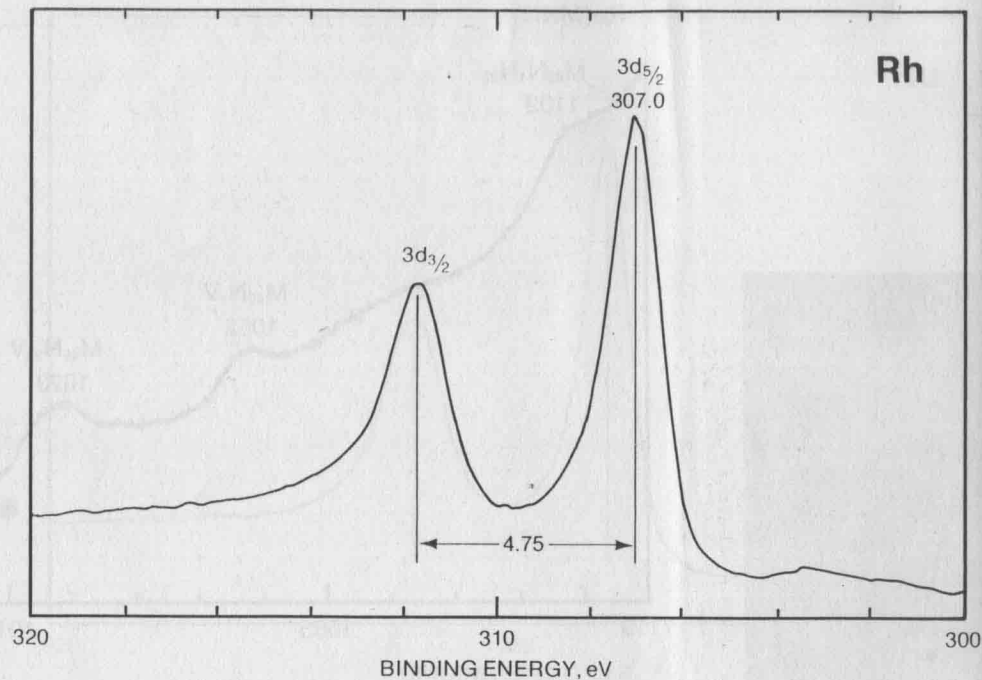
Ruthenium, Ru

Atomic Number **44**

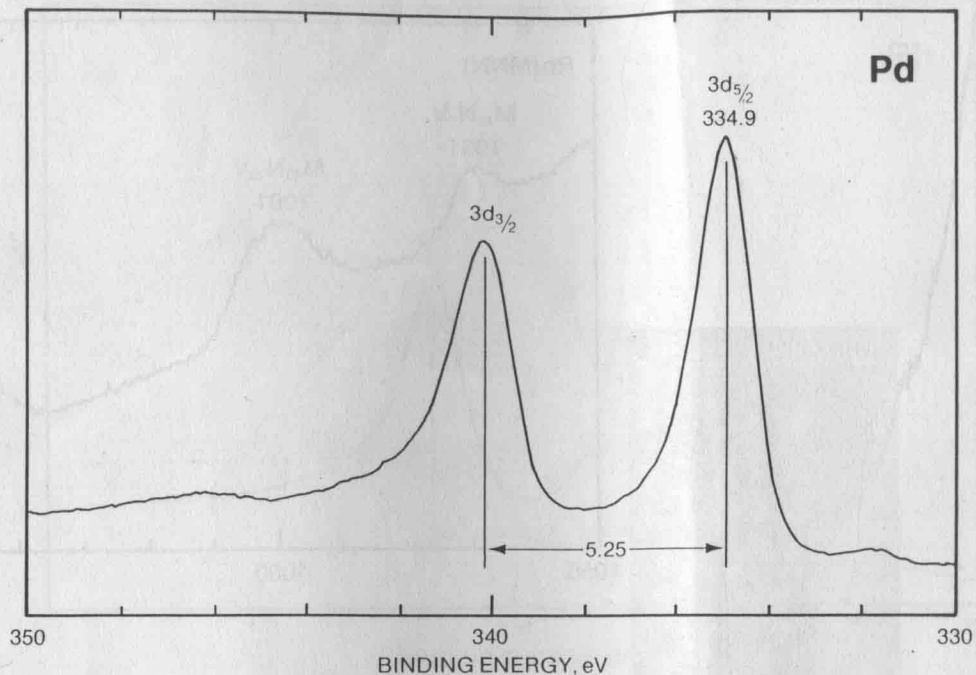
COMPOUND	3d _{5/2} BINDING ENERGY, eV								REF.
	275				280			285	
Ru									Φ
Ru									KW
Ru									F
Ru									BHH
Ru(NH ₃) ₅ N ₂ I ₂									F
Ru(NH ₃) ₅ N ₂ Br ₂									F
Ru(NH ₃) ₅ N ₂ Cl ₂									F
Ru(NH ₃) ₅ (MeCN)Br ₂									BFM
Ru(NH ₃) ₅ (MeCN)Br ₃									BFM
RuO ₂									KW
RuO ₂									F
RuCl ₃									F
RuO ₃									KW
RuO ₄									KW

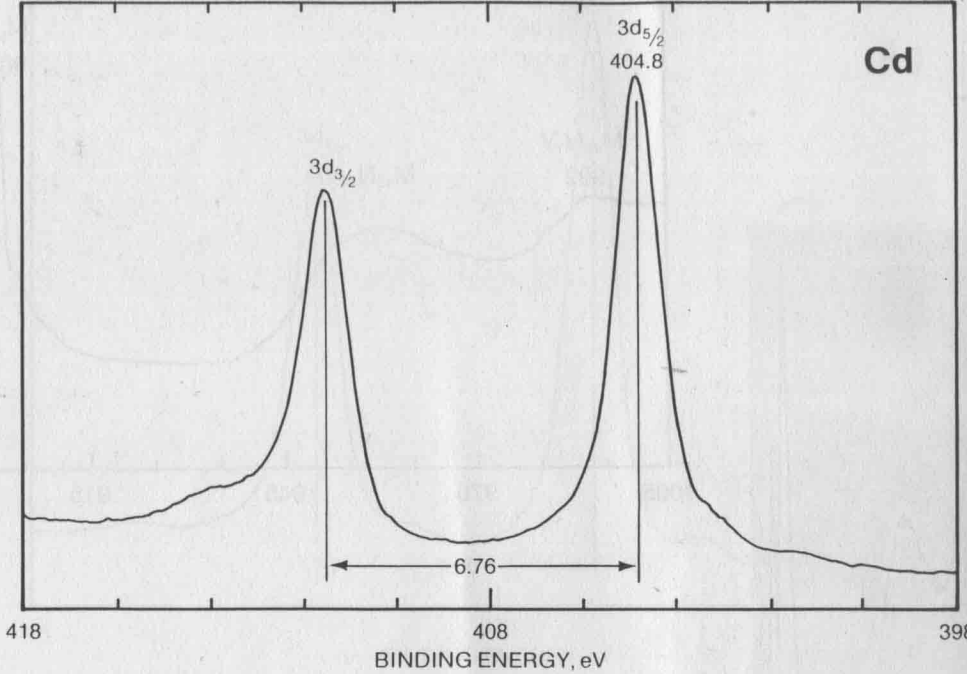
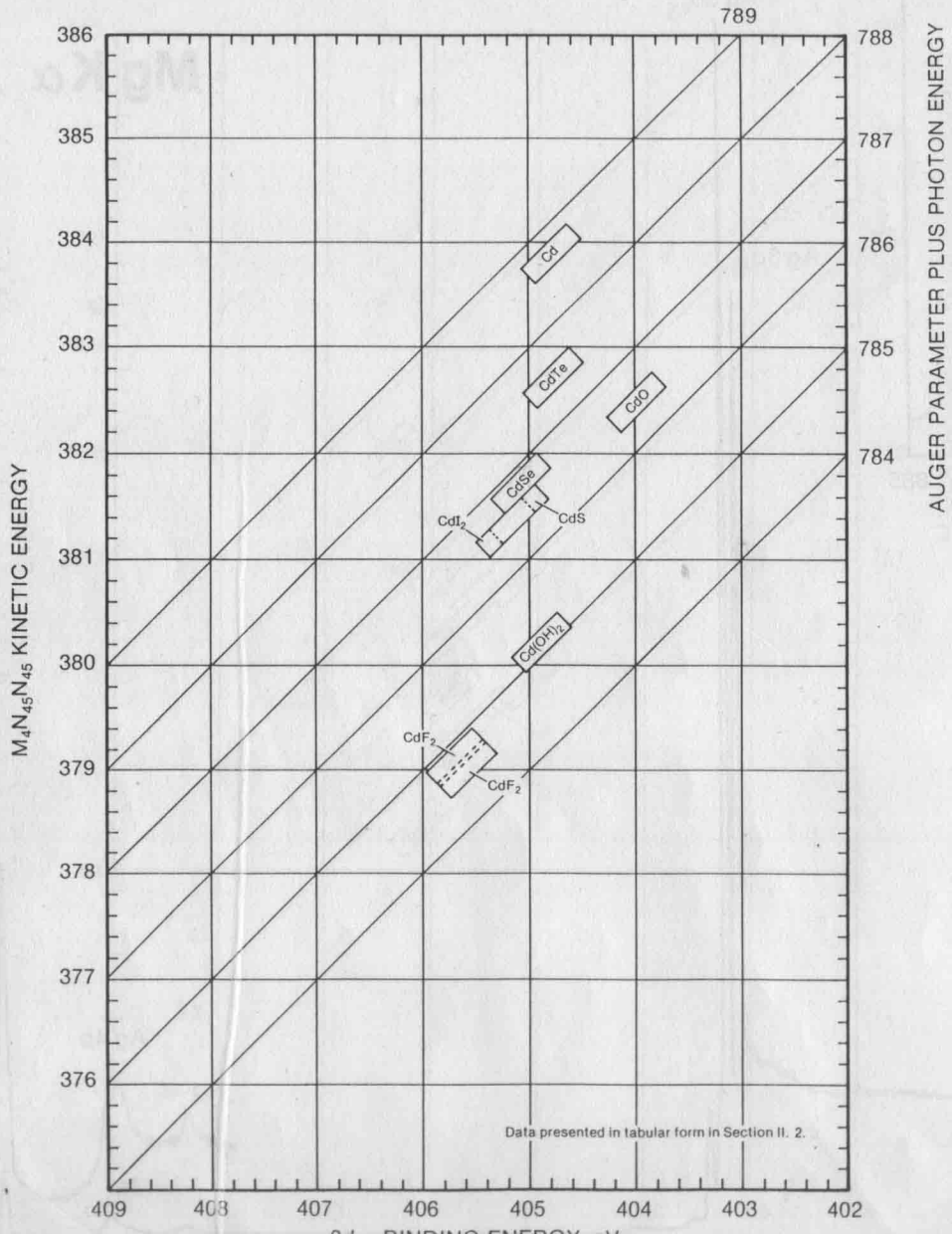


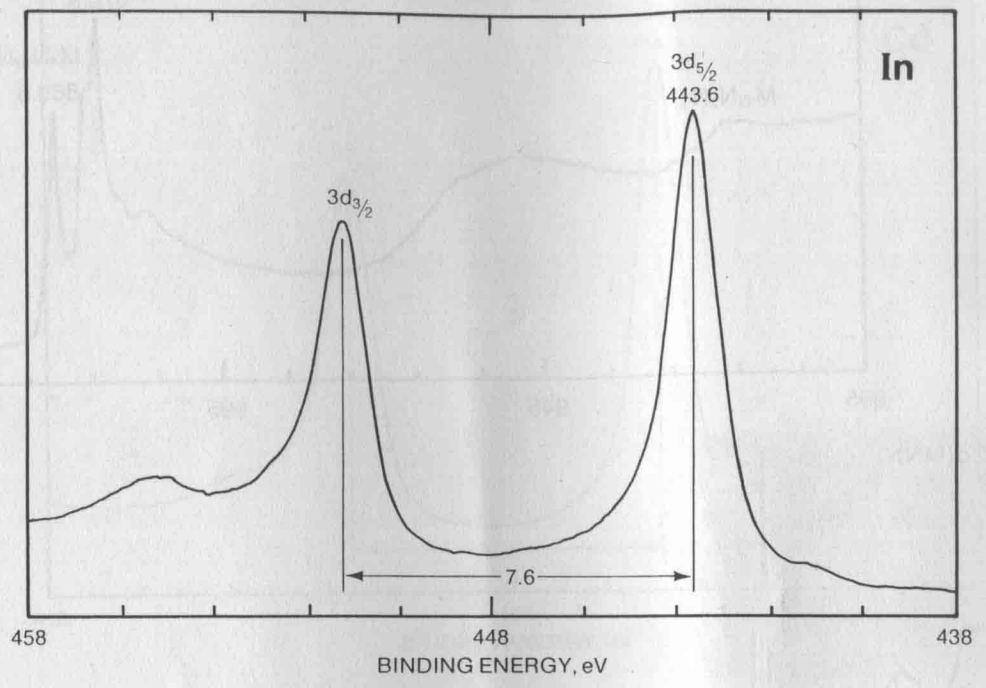
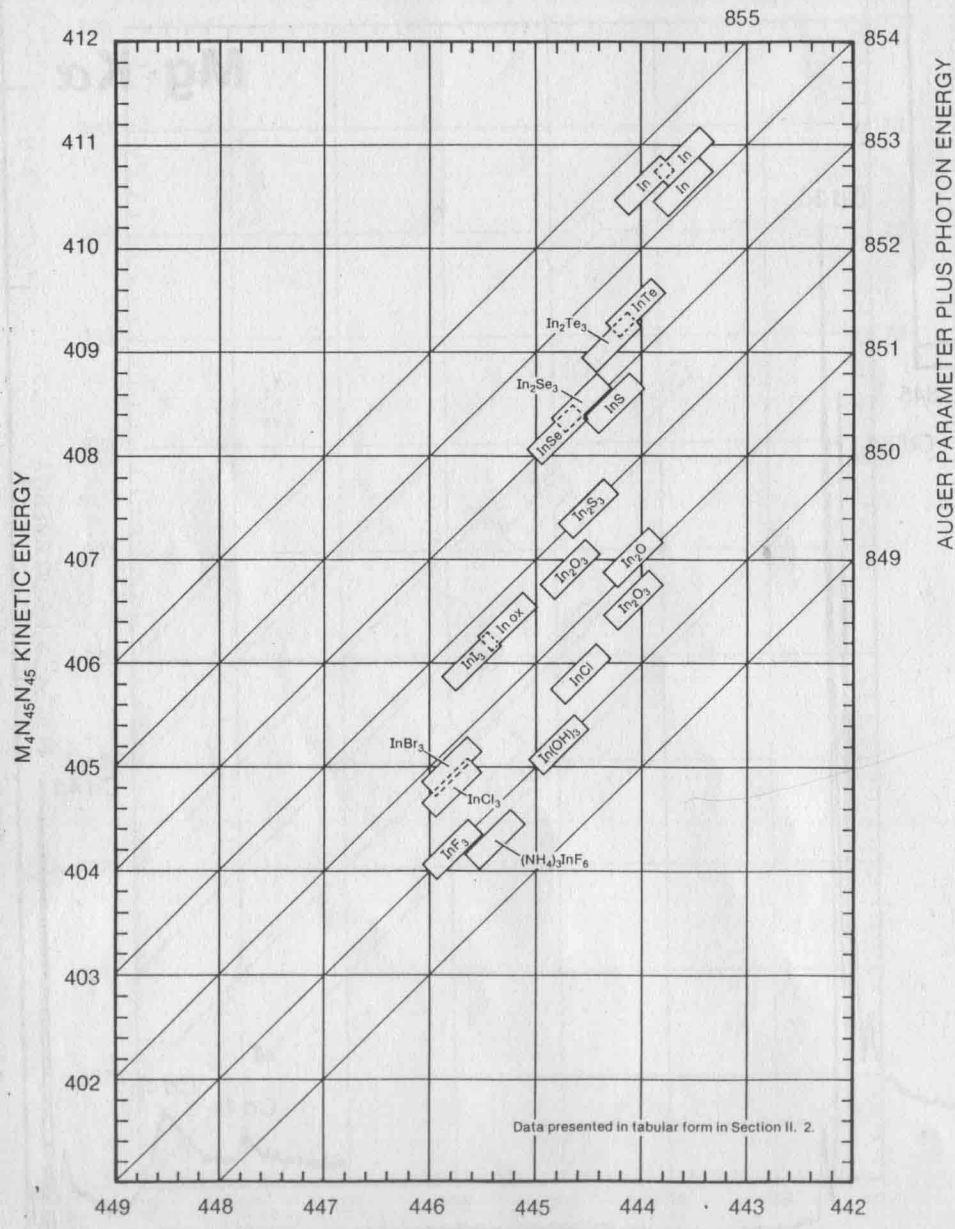
COMPOUND	3d _{5/2} BINDING ENERGY, eV						REF.
	305		310			315	
Rh							Φ
Rh							HKN
Rh(PPh ₃) ₃ Br							NSK
Rh(PPh ₃) ₃ I							NSK
Rh(PPh ₃)NO							NSK
Rh(PPh ₃) ₂ COCl							NSK
Rh(PPh ₃) ₂ COBr							NSK
Rh(PPh ₃) ₂ COI							NSK
Rh(PPh ₃) ₂ ClC ₂ H ₄							NSK
Rh(PPh ₃) ₂ ClC ₂ H ₄							MMR
RhI ₃							NSK
Rh(PPh ₃) ₃ Cl							NSK
Rh(PPh ₃) ₃ Cl							MMR
Rh ₂ (PPh ₃) ₂ (OAc) ₂							NSM
Rh ₂ (OAc) ₄ ·2H ₂ O							NSM
Rh ₂ (OAc) ₄ ·(NH ₃) ₂							NSM
Rh ₂ (OAc) ₂ (H ₂ NCSNH ₂) ₂							NSM
Rh(PMe ₂ Ph) ₃ Cl ₃							LB
Rh(PMe ₂ Ph) ₃ Cl ₃							N
Rh(PPh ₃) ₂ COCl[C ₂ (CN) ₄]							MMR
Rh(PPh ₃) ₃ Cl ₂ (C ₂ H ₄)							NSK
RhEtNCl ₂							NSK
Rh(PPh ₃)HCl ₂							NSK
Rh(NH ₃) ₃ I ₃							NSK
Rh(PPh ₃) ₃ Cl ₃							NSK
Rh(C ₅ H ₅ N) ₃ Cl ₃							NSK
K ₃ RhCl ₆							NSK
Na ₃ RhCl ₆							W1
Rh acac ₃							W1
Rh(NH ₃) ₃ Cl ₃							NSK
Rh(NH ₃) ₆ Cl ₃							NSK
Rh(NO ₃) ₃							W1
K ₃ Rh(NO ₂) ₆							NSK
K ₃ Rh(CN) ₆							NSK
K ₃ Rh(NO ₃) ₆							NSK



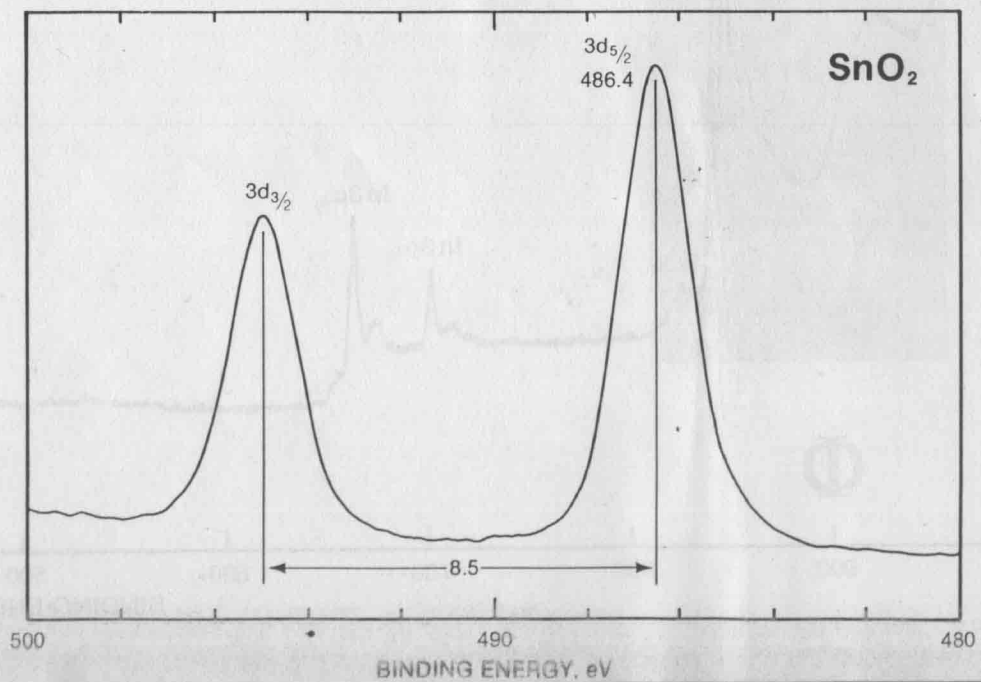
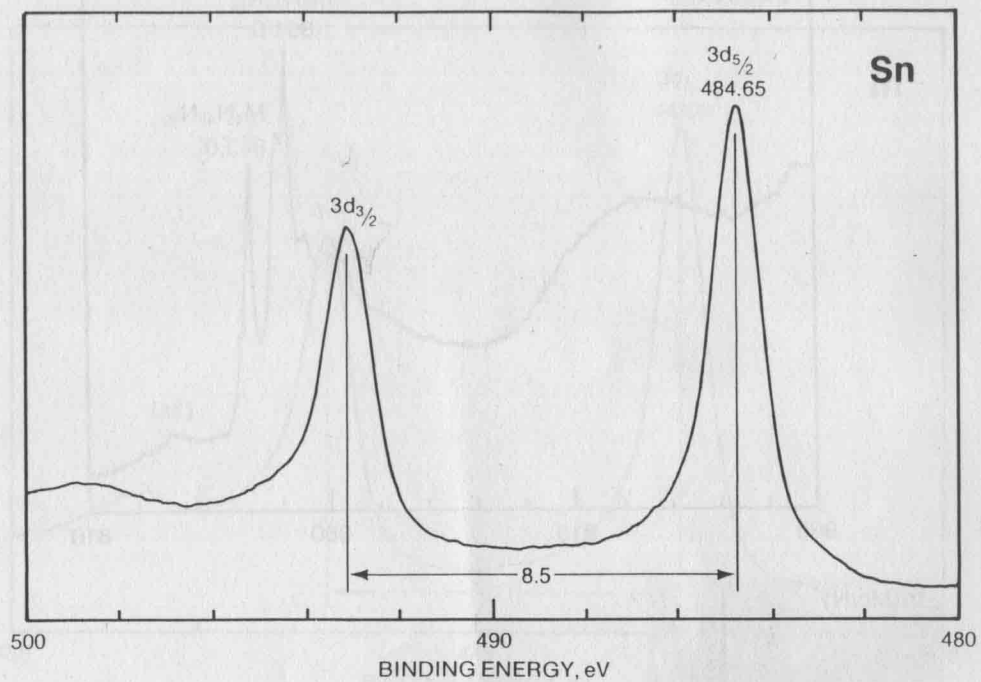
COMPOUND	3d _{5/2} BINDING ENERGY, eV						REF.
	330		335			340	
Pd							Φ
Pd							KBM
PdO							KGW
PdI ₂							KBM
[Pd(C ₃ H ₅)Br] ₂							NZM
Pd(C ₃ H ₅)(PPh ₃)Cl							NZM
[Pd(C ₃ H ₅)Cl] ₂							NZM
PdBr ₂							KBM
K ₂ PdBr ₄							NZM
K ₂ PdBr ₄							KBM
Pd ₂ (PBU ₃) ₂ Cl ₄							CAB
PdCl ₂							KBM
PdCl ₂							NZM
Pd(PPh ₃) ₂ Br ₂							NZM
PdO ₂							KGW
Pd(PPh ₃) ₂ Cl ₂							KBM
Pd(PPh ₃) ₂ Cl ₂							BNS
Pd(PPh ₃) ₂ CO ₃							NZM
Pd(C ₅ H ₅ N) ₂ Cl ₂							NZM
Pd(NH ₃) ₂ Br ₂							NZM
Pd(NH ₃) ₂ Cl ₂							NZM
Pd(PPh ₃) ₂ (CN) ₂							KBM
K ₂ PdCl ₄							KBM
K ₂ PdCl ₄							NZM
Pd[P(OPh) ₃] ₂ Br ₂							NZM
Pd(NH ₃) ₄ Cl ₂							NZM
Pd(OAc) ₂							NZM
Pd(NH ₃) ₂ (NO ₂) ₂							NZM
K ₂ Pd(NO ₂) ₄							NZM
K ₂ Pd(NO ₂) ₄							KBM
K ₂ Pd(CN) ₄							NZM
K ₂ Pd(CN) ₄							KBM
Pd(CN) ₂							KBM
K ₂ PdCl ₆							NZM
K ₂ PdCl ₆							KBM



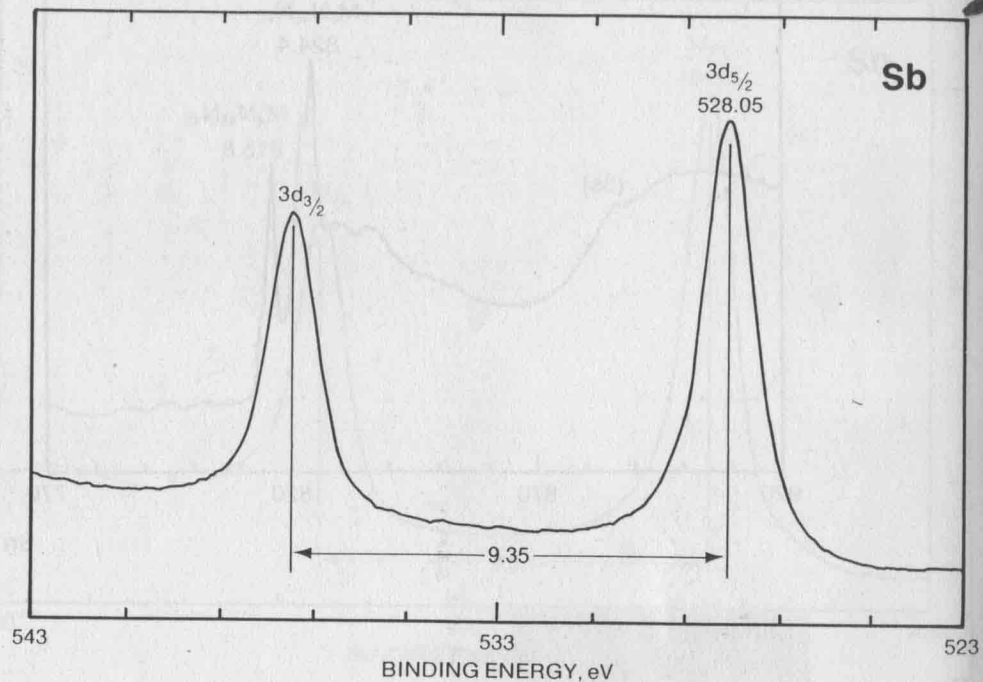


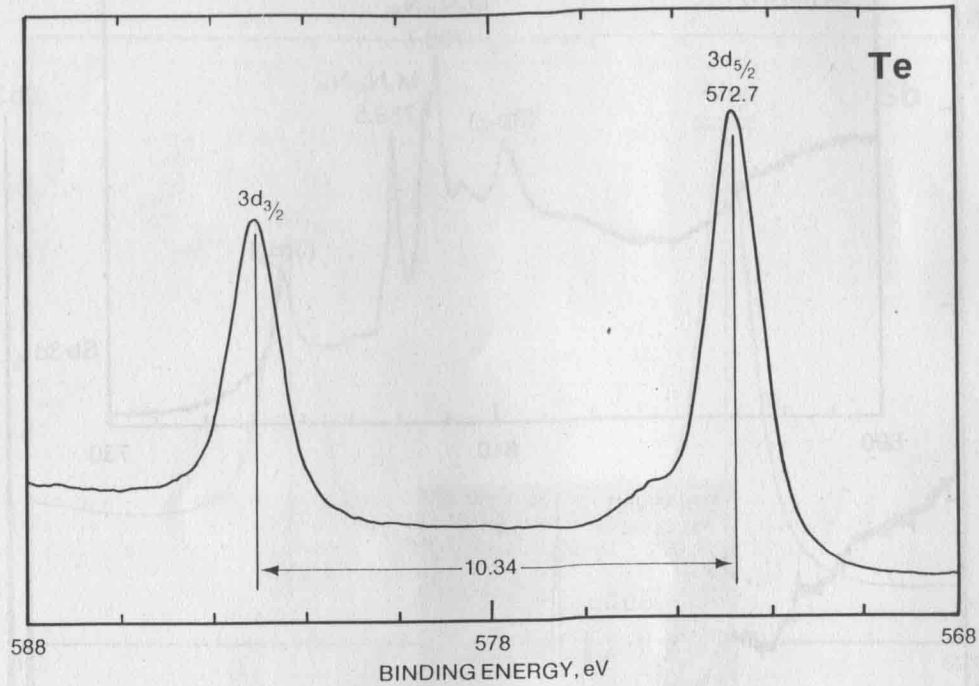
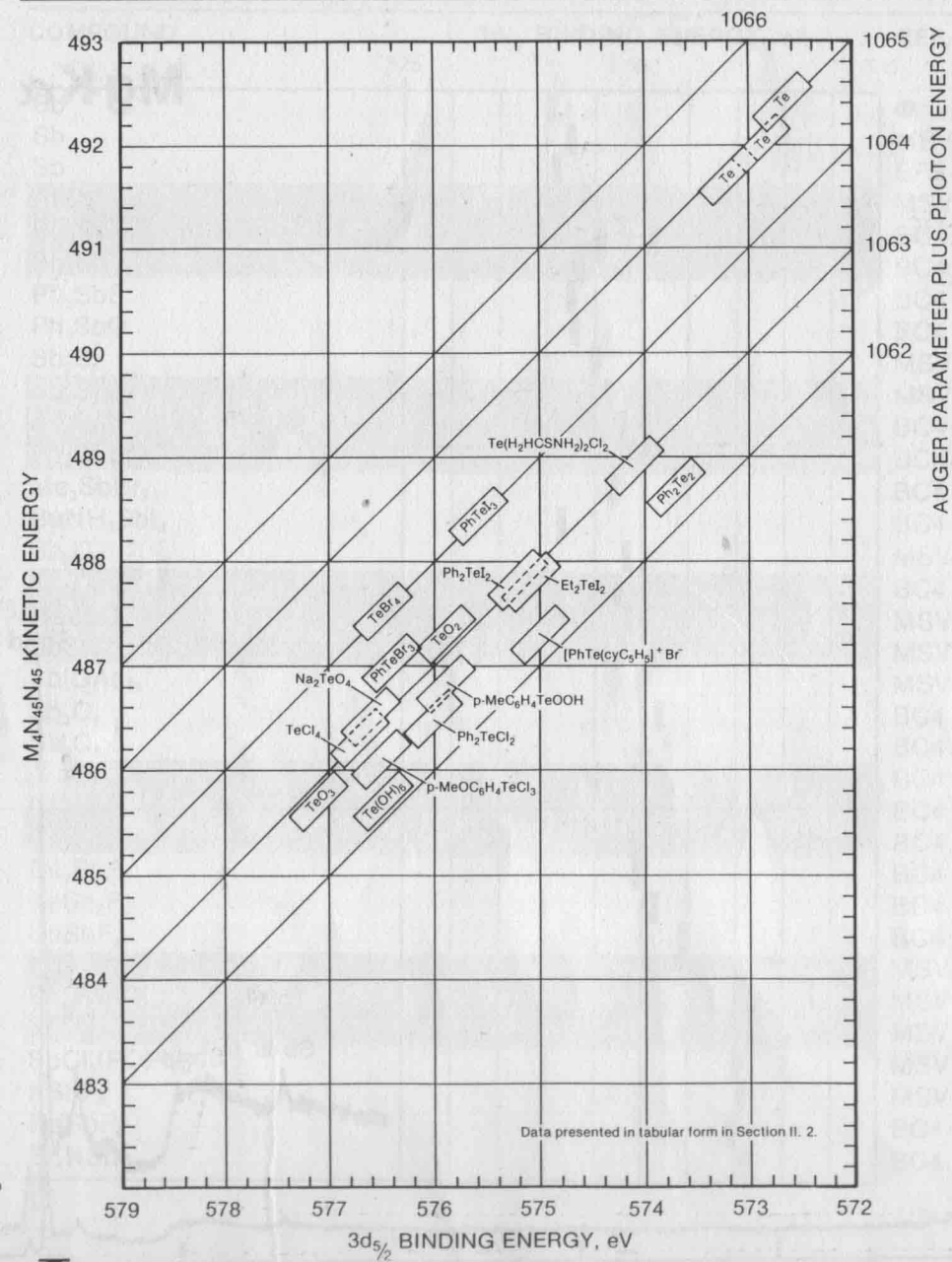


COMPOUND	3d _{5/2} BINDING ENERGY, eV										REF.	
	480							485			490	
Sn												Φ
Sn												FHP
Sn												LAK
Sn												SFS
AuSn												FHP
SnSe												SFS
SnTe												SFS
SnPh ₄												MV
SnPh ₄												BAL
SnPh ₄												HWV
SnS												MV
SnS												SFS
SnS ₂												MV
SnI ₂												MV
SnBr ₂												MV
Me ₄ N ₂ SnCl ₃												GZF
Na ₂ SnO ₃												MV
SnO												Φ
SnO												GZF
SnO ₂												Φ
SnO ₂												LAK
SnO ₂												GZF
(NH ₄) ₂ SnCl ₆												GZF
(C ₆ H ₅ N) ₂ SnCl ₄												GZF
Ph ₃ SnCl												MV
SnCl ₂												GZF
SnCl ₂ ·2H ₂ O												GZF
Me ₂ Sn acac ₂												BAL
(Ph ₃ P) ₄ SnCl												HWV
(Ph ₃ P) ₄ SnF												HWV
SnF ₂												GZF
SnF ₂												MV
SnF ₄												GZF
KSnF ₃												GZF
K ₂ SnF ₆												MV

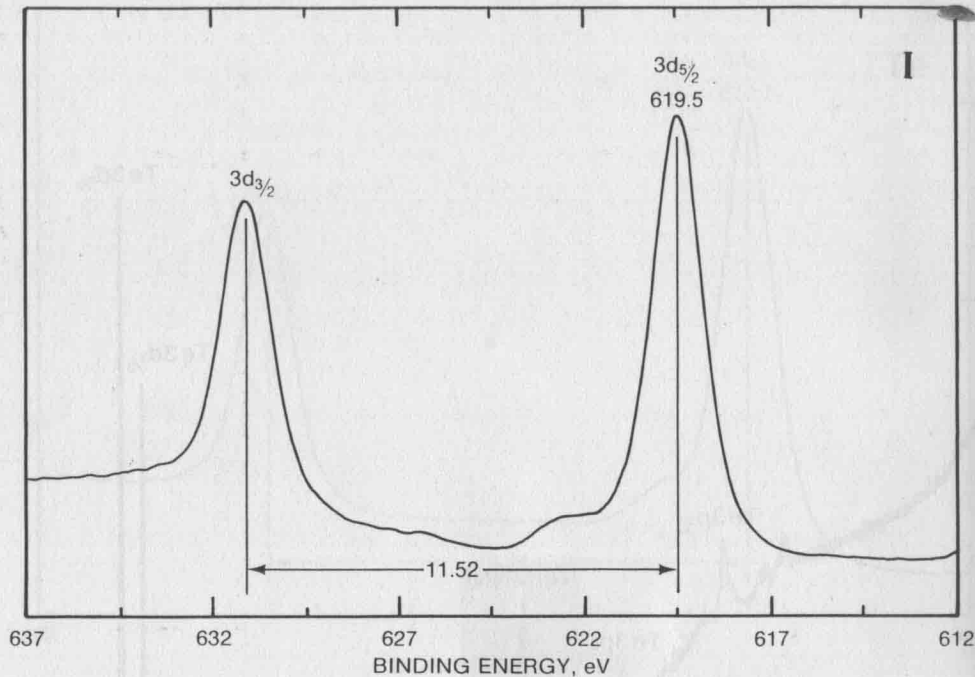


COMPOUND	3d _{5/2} BINDING ENERGY, eV										REF.
	525				530					535	
Sb											Φ
Sb											MSV
Sb											SFS
AlSb											MSV
Bu ₃ Sb											BC4
Ph ₃ Sb											BC4
Ph ₃ SbS											BC4
Ph ₃ SbO											BC4
Sb ₂ S ₅											MSV
Sb ₂ S ₃											MSV
Sb ₂ S ₃											BC4
Ph ₃ SbBr ₂											BC4
Me ₃ SbBr ₂											BC4
BuNH ₃ SbI ₄											BC4
Sb ₂ O ₃											MSV
Sb ₂ O ₃											BC4
NaSbO ₃											MSV
SbS(C ₁₂ H ₂₅) ₃											MSV
Sb(OAc) ₃											MSV
Sb ₂ O ₅											BC4
Sb ₂ O ₅											BC4
Cs ₂ Sb ₂ I ₉											BC4
Cs ₃ Sb ₂ Cl ₉											BC4
Cs ₃ Sb ₂ Br ₉											BC4
Cs ₂ SbF ₅											BC4
CsSb ₂ F ₇											BC4
CsSbF ₄											BC4
K ₂ H ₂ Sb ₂ O ₇ ·4H ₂ O											MSV
Ph ₄ PSbCl ₆											MSV
SbF ₃											MSV
SbCl ₅ (OPh ₃)											MSV
KSbF ₆											MSV
NaSbF ₆											BC4
Et ₄ NSbF ₆											BC4





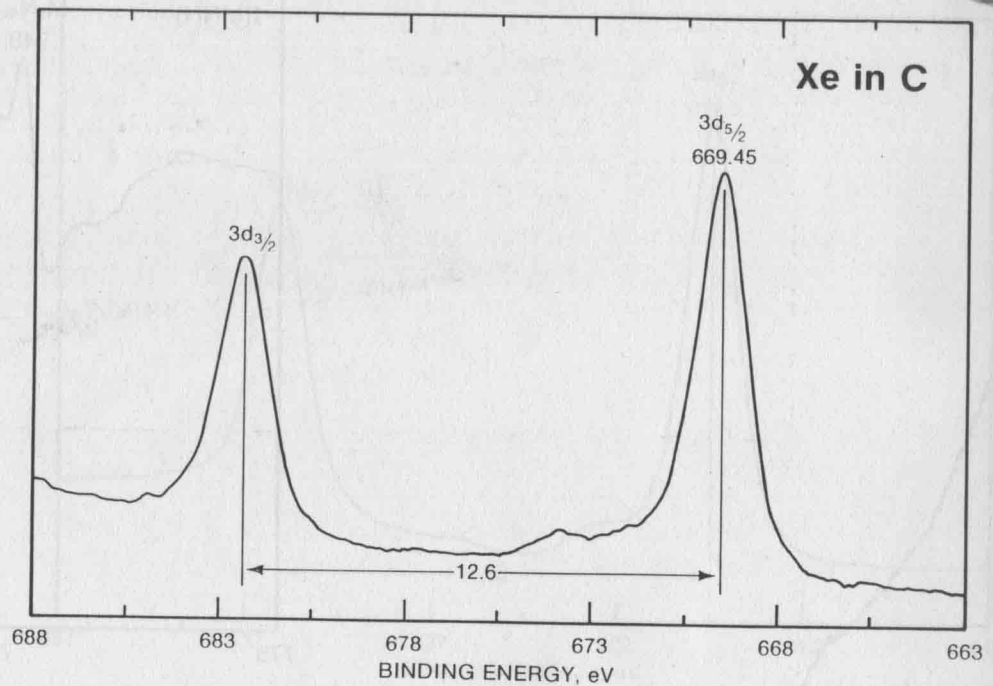
COMPOUND	3d _{5/2} BINDING ENERGY, eV										REF.
	615					620				625	
LiI											Φ
LiI											MVS
NaI											MVS
KI											MVS
RbI											MVS
CsI											MVS
HgI ₂											N
CdI ₂											N
ZnI ₂											N
iodanil											OYK
Rb ₃ Sb ₂ I ₉											T
KIO ₄											W1



Xenon, Xe

Atomic Number **54**

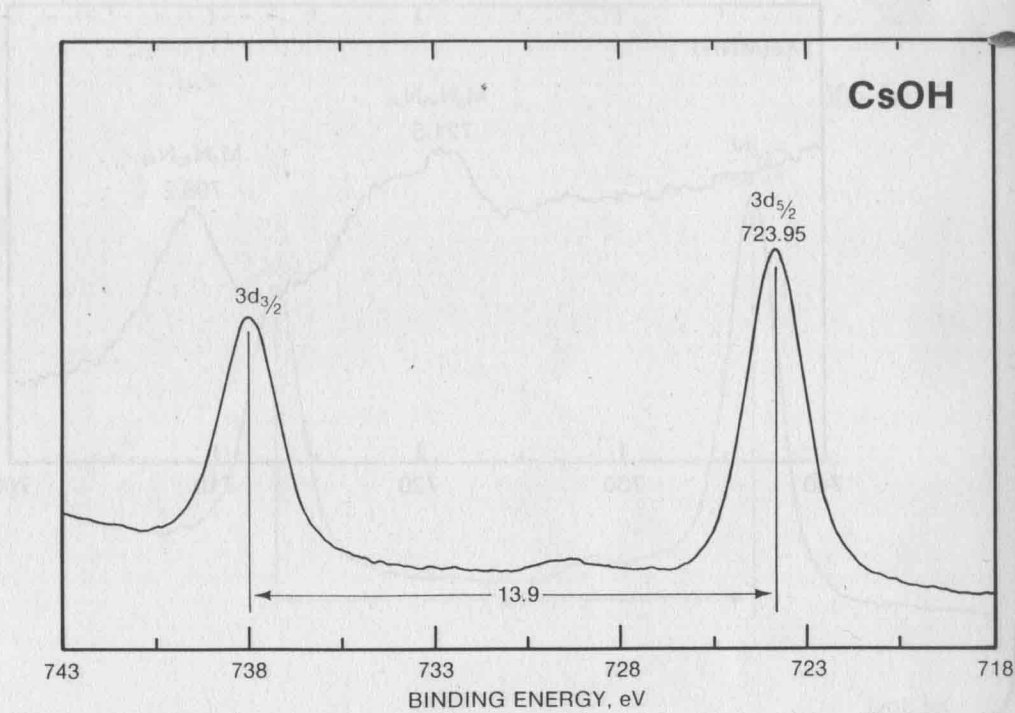
COMPOUND	3d _{5/2} BINDING ENERGY, eV										REF.	
Xe (in C)												Φ
Xe (in Fe)												W1
Xe (in Cu)												CH2
Xe (in Ag)												CH2
Xe (in Au)												CH2
Na ₄ XeO ₆												W1



Cesium, Cs

Atomic Number **55**

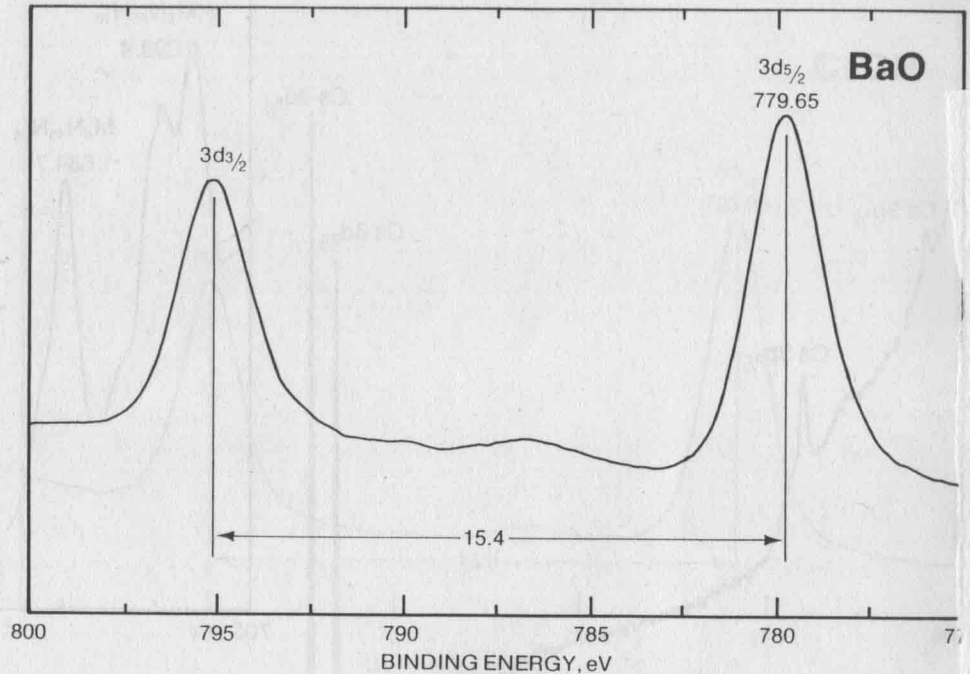
COMPOUND	3d _{5/2} BINDING ENERGY, eV										REF.
	720					725				730	
CsOH											Φ
CsCl											MVS
CsBr											MVS
CsI											MVS
CsF											MVS
CsN ₃											SGR
Cs ₃ PO ₄											MVS
Cs ₄ P ₂ O ₇											MVS
CsClO ₄											MVS



Barium, Ba

Atomic Number **56**

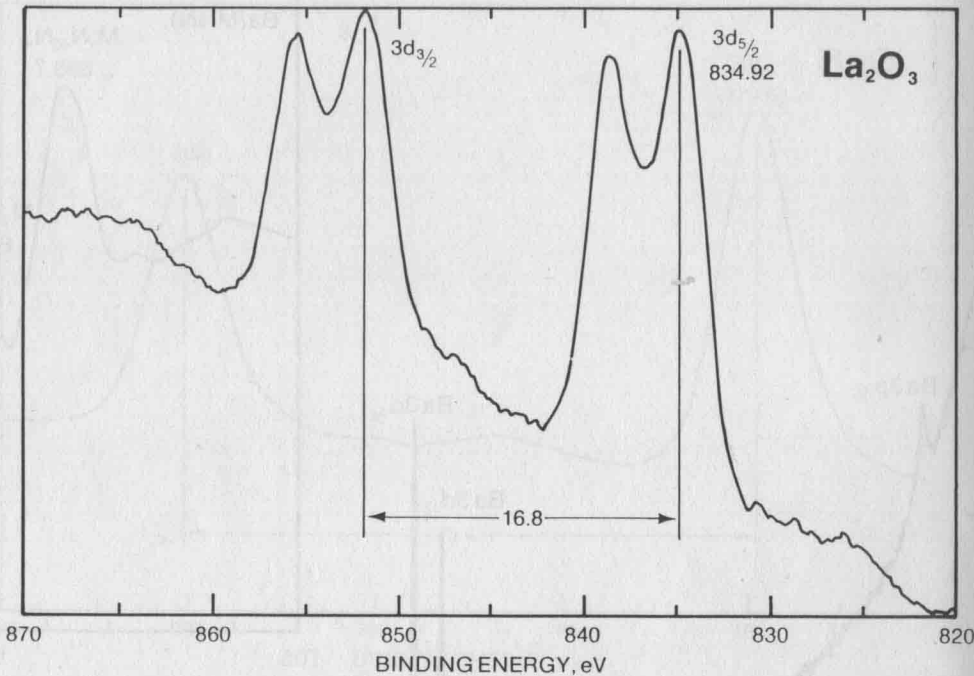
COMPOUND	3d _{5/2} BINDING ENERGY, eV	REF.
BaO	778	Φ
Ba erucate		W3
Ba chloranilate		W3
BaSO ₄		W3
BaF ₂		W3



Lanthanum, La

Atomic Number **57**

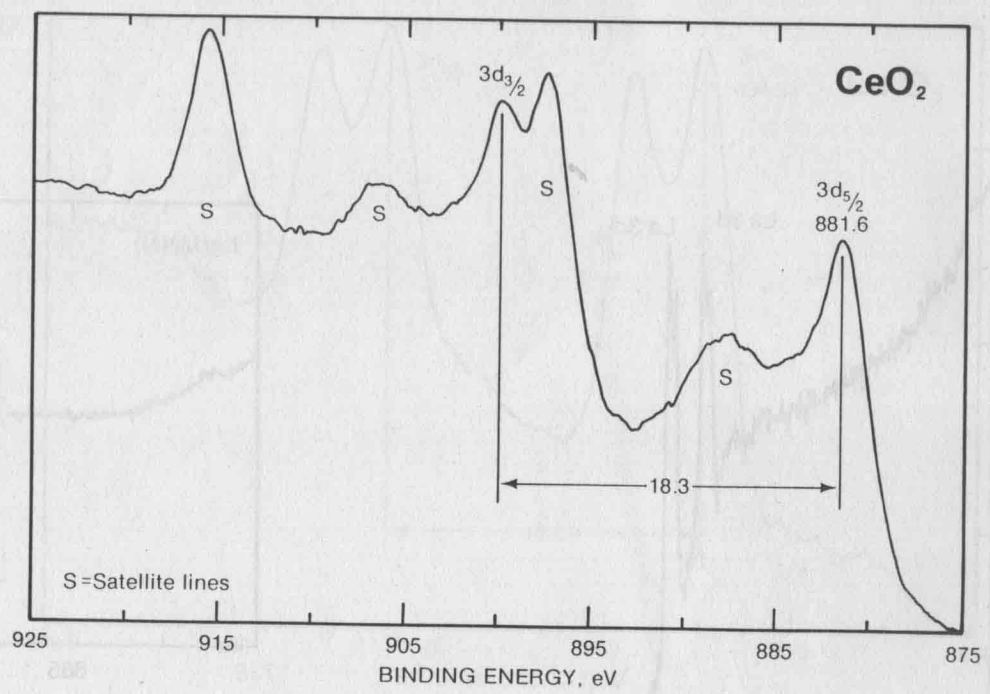
COMPOUND	$3d_{5/2}$ BINDING ENERGY, eV	REF.
La ₂ O ₃	834.92	Φ
LaF ₃	835.0	W1



Cerium, Ce

Atomic Number **58**

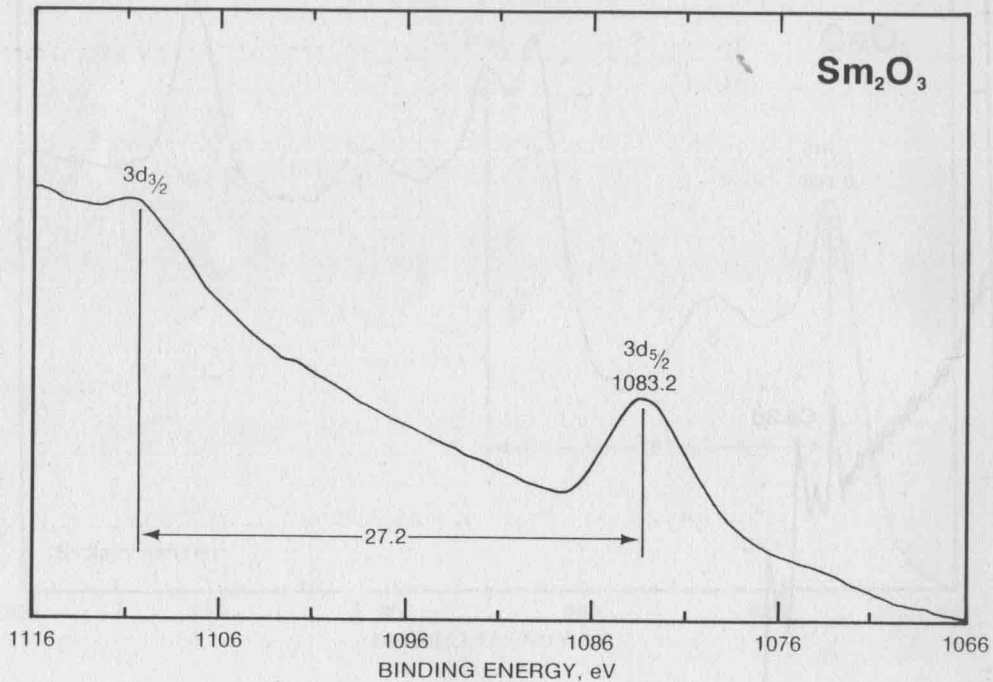
COMPOUND	3d _{5/2} BINDING ENERGY, eV										REF.	
Ce	875					880					885	BZ
CeO ₂												NGD
CeO ₂												Φ



Samarium, Sm

Atomic Number **62**

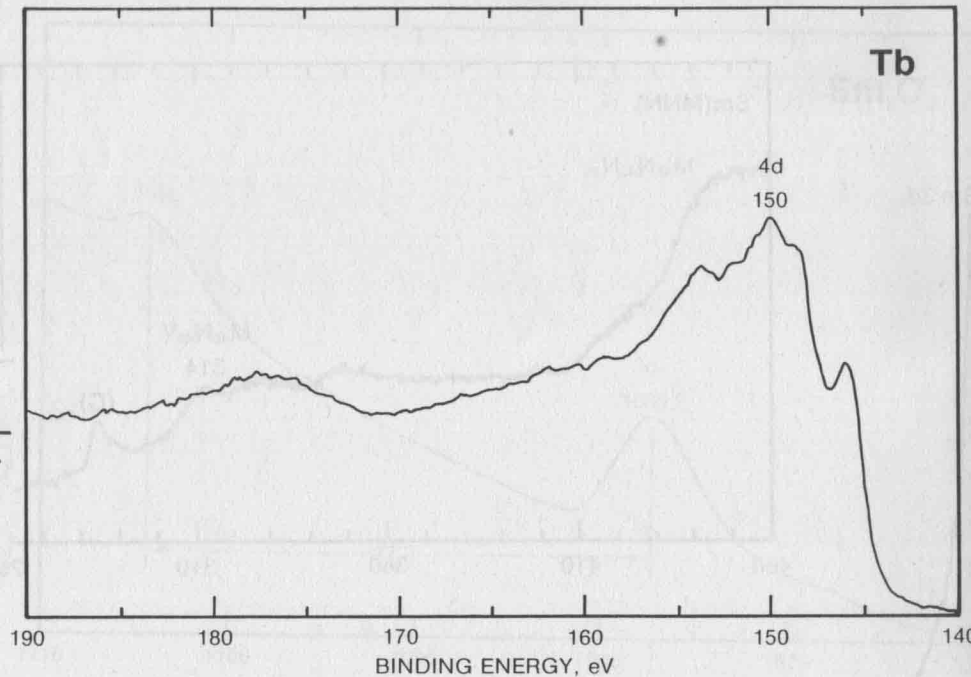
COMPOUND	3d _{5/2} BINDING ENERGY, eV										REF.	
Sm	1080					1085						DKM
Sm ₂ O ₃												DKM
Sm ₂ O ₃												Φ



Terbium, Tb

Atomic Number **65**

COMPOUND	$4d_{5/2}$ BINDING ENERGY, eV	REF.
Tb	145 150 155	Φ

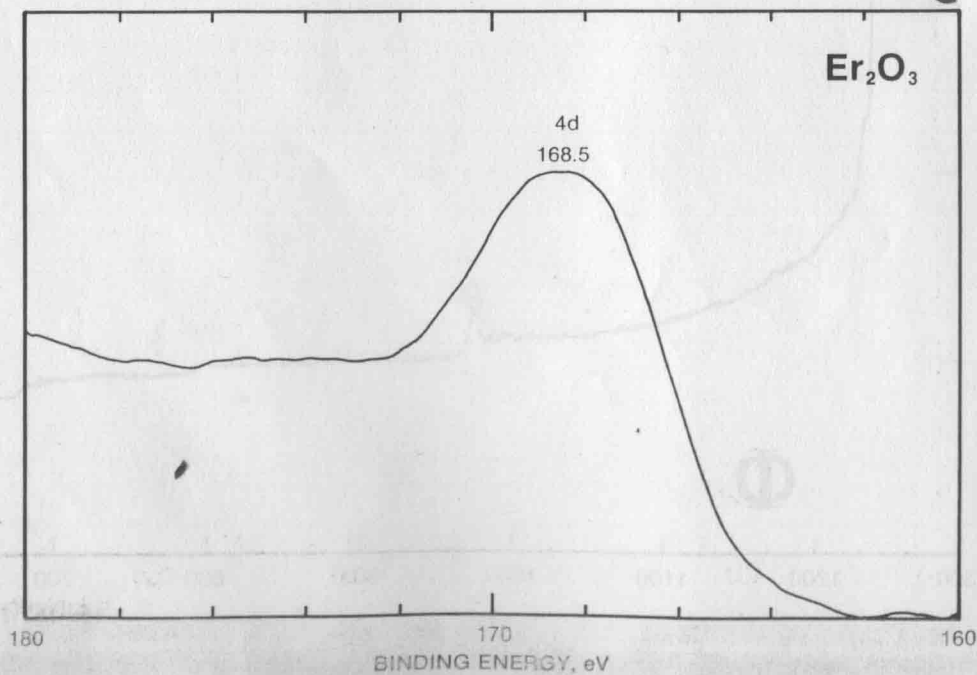
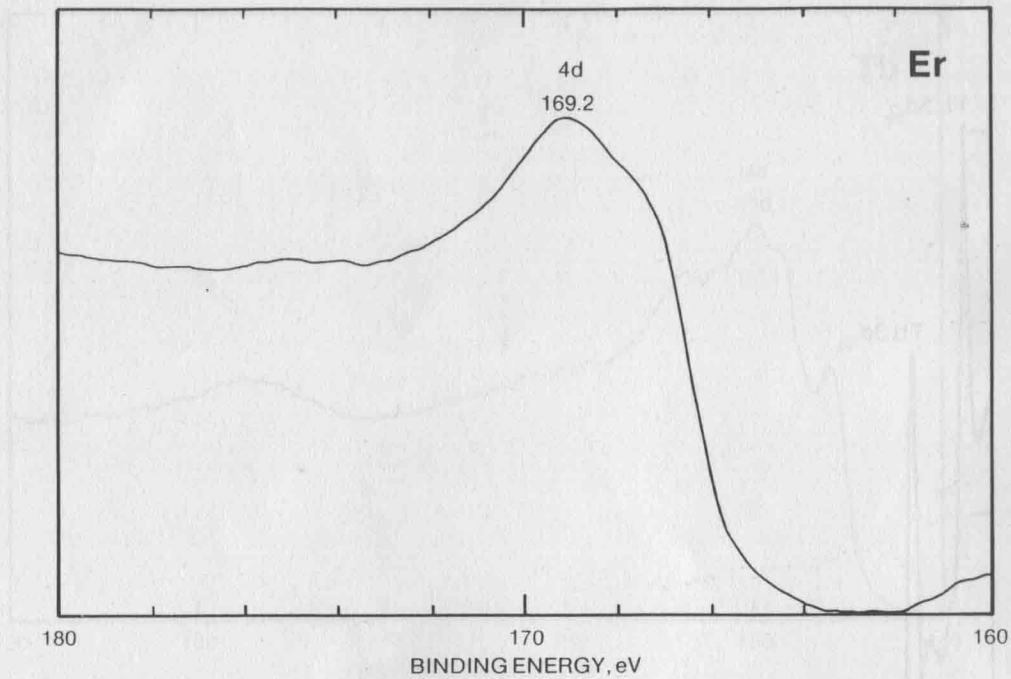


Erbium, Er

Atomic Number

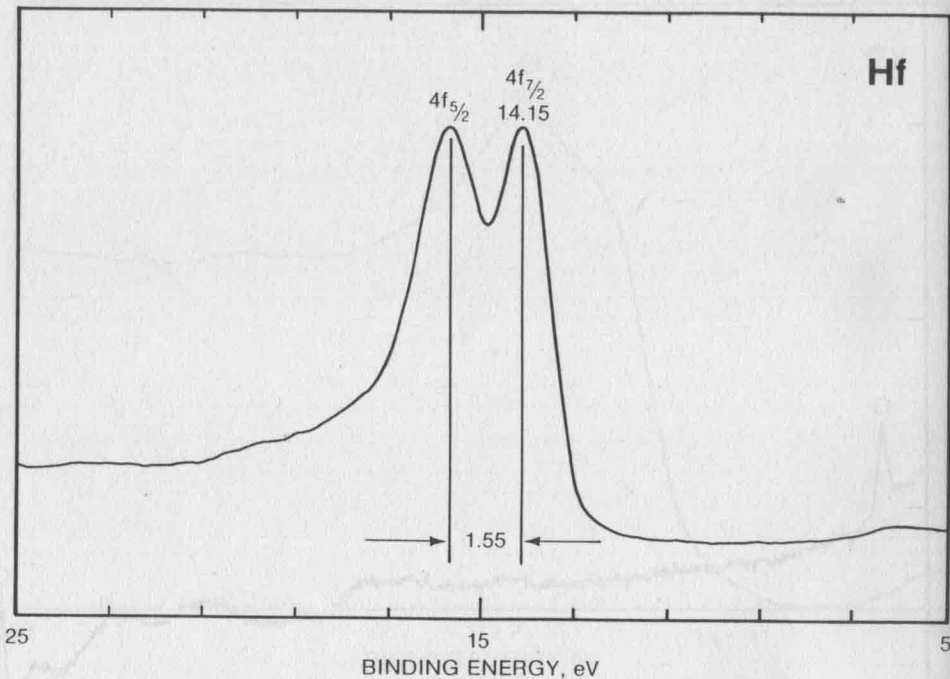
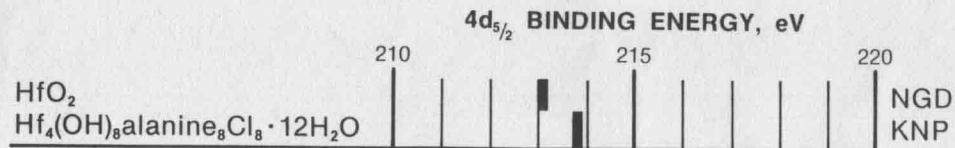
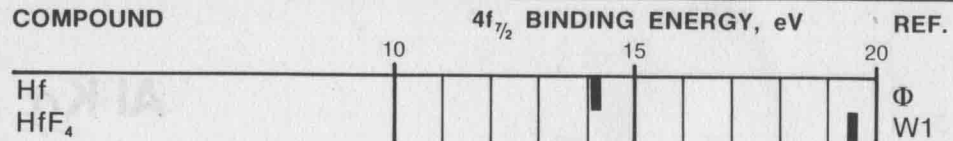
68

COMPOUND	4d _{5/2} BINDING ENERGY, eV										REF.
Er											Φ
Er ₂ O ₃											NGD
Er ₂ O ₃											Φ



Hafnium, Hf

Atomic Number **72**

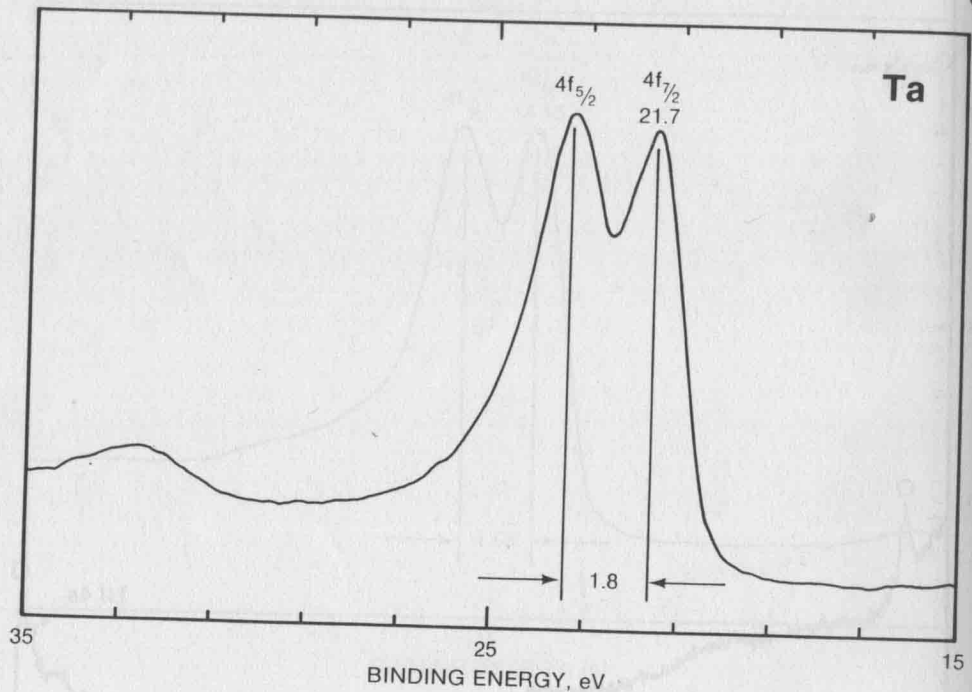


Tantalum, Ta

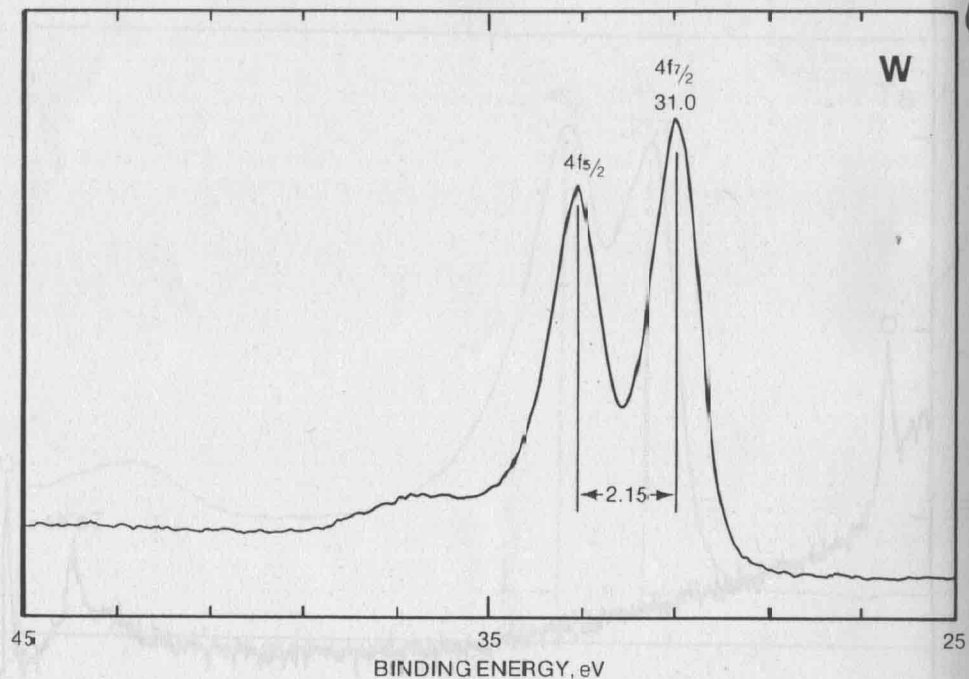
Atomic Number

73

COMPOUND	4f _{7/2} BINDING ENERGY, eV										REF.
	20					25				30	
Ta											Φ
Ta											RH2
Ta											MSC
TaC											RH2
TaS											MSC
TaS ₂											MSC
TaSi ₂											MSC
Ta ₅ Si ₃											MSC
KTaO ₃											MSC
Ta ₂ O ₅											MSC
Ta ₂ O ₅											NGD
TaBr ₅											MSC
TaCl ₅											MSC
TaF ₅											MSC
K ₂ TaF ₇											MSC



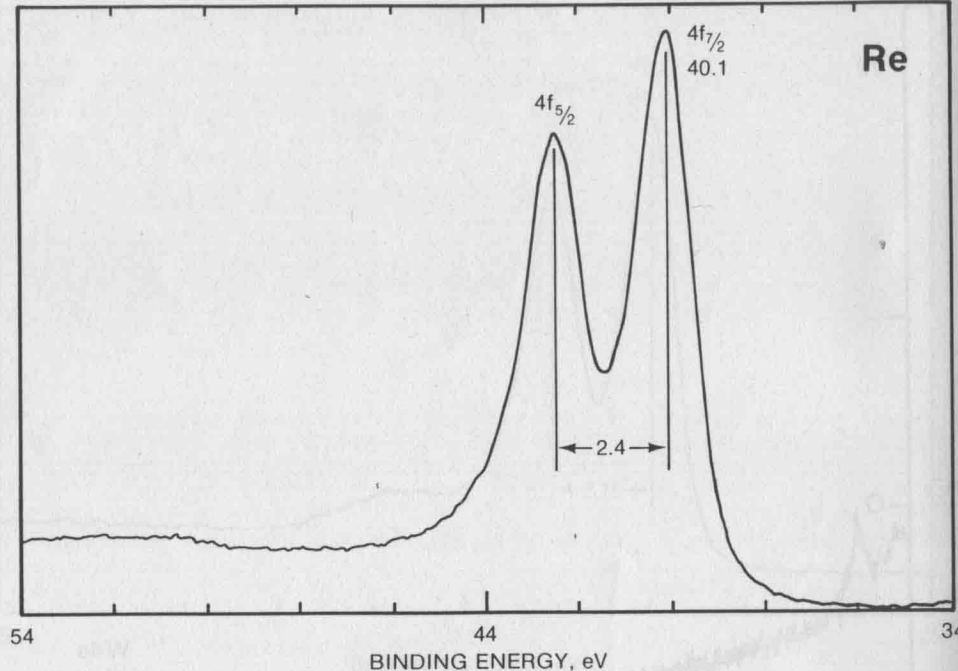
COMPOUND	4f _{7/2} BINDING ENERGY, eV							REF.
	30			35			40	
W								Φ
W								BP
W								NH2
W								CR
WB								CR
WC								CR
WC								MSC
WS ₂								NH2
WN								CR
WO ₂								NH2
WO ₂								CR
WCl ₄ (PMe ₂ Ph) ₂								LB
WCl ₄ (PEt ₃) ₂								LB
K ₂ WCl ₆								LB
WO ₃								NGD
WO ₃								NSL
WO ₃								MSC
WO ₃								BP
WO ₃								NH2
WO ₃								CR
WO ₃								NGD
H ₂ WO ₄								BP
Li ₂ WO ₄								MSC
NiWO ₄								NH2
Al ₂ (WO ₄) ₃								BP
Al ₂ (WO ₄) ₃								NH2
(NH ₄) ₆ W ₇ O ₂₄ ·4H ₂ O								BP
WBr ₅								MSC
WBr ₆								MSC
WCl ₆								MSC
WOCl ₄								MSC



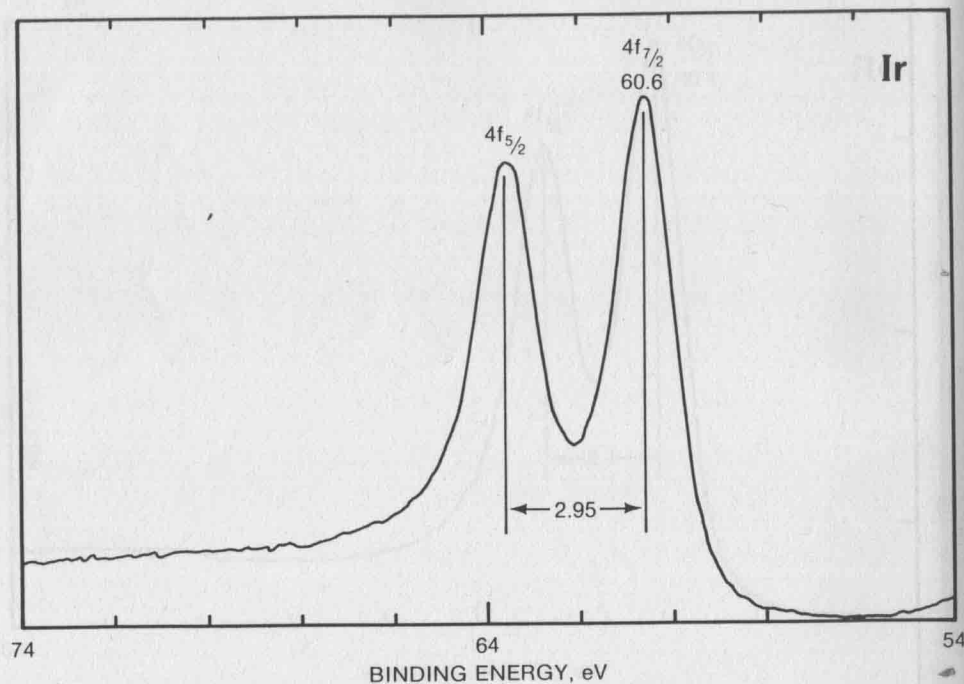
Rhenium, Re

Atomic Number **75**

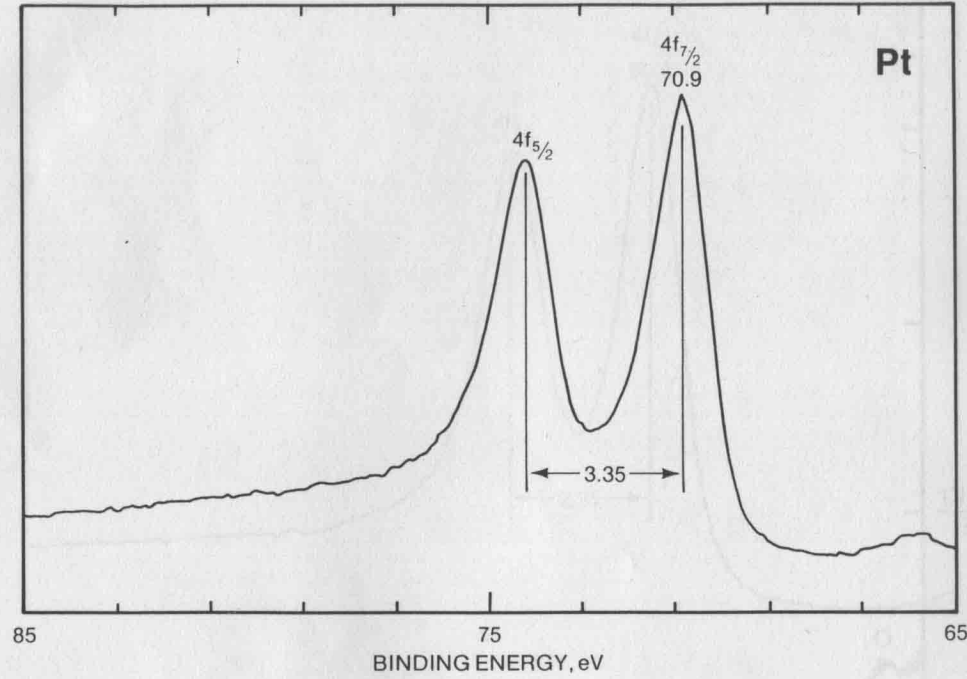
COMPOUND	4f _{7/2} BINDING ENERGY, eV							REF.
	38				43			
Re								Φ
Re								F
ReClN ₂ (Ph ₂ PCH ₂ PPh ₂) ₂								F
ReClN ₂ (PMe ₂ Ph) ₄								F
ReOCl ₃ (PPh ₃) ₂								F
ReClN ₂ (PMe ₂ Ph) ₄								LB
ReCl ₂ (PMe ₂ Ph) ₄								LB
ReCl ₃ (PMe ₂ Ph) ₃								LB
ReCl ₄ (PMe ₂ Ph) ₂								LB
ReCl ₄ (Et ₃ P) ₂								LB
K ₂ ReCl ₆								LB
K ₂ ReCl ₆								CH1
KReO ₄								W1



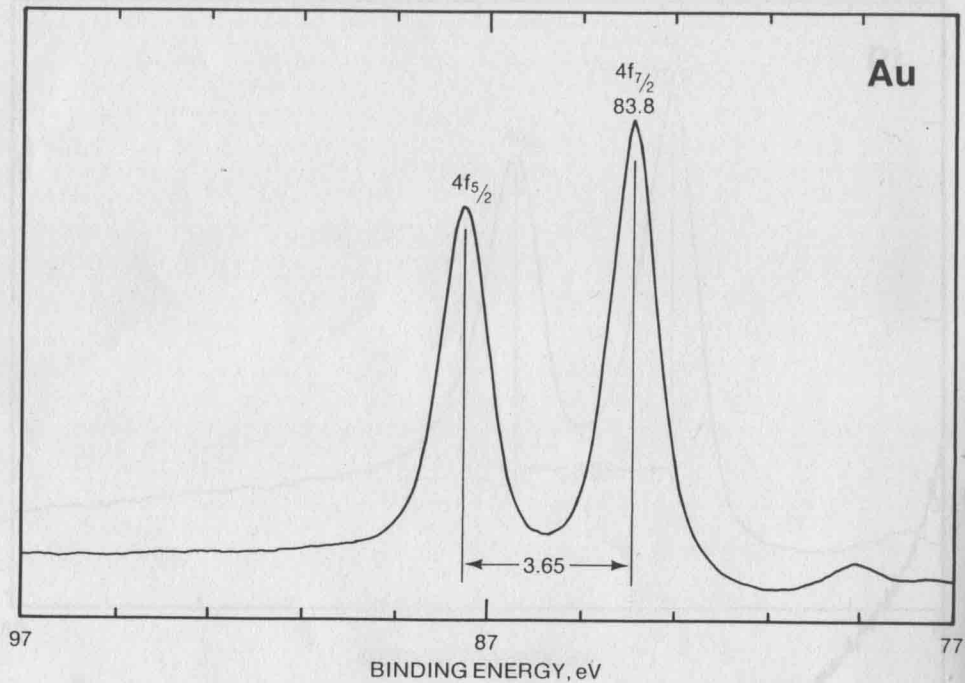
COMPOUND	4f _{7/2} BINDING ENERGY, eV							REF.
	60					65	70	
Ir								Φ
Ir								BHH
Ir								ELC
Ir(PPh ₃) ₂ ClN ₂								F
Ir(PPh ₃) ₂ ClO ₂ (CO)								MMR
Ir(PPh ₃) ₂ Cl(CO) ₂								MMR
Ir(PPh ₃) ₂ IO ₂ (CO)								MMR
Ir(PPh ₃) ₂ Cl(CO)(C ₂ F ₄)								MMR
Ir(PMe ₂ Ph) ₃ Cl ₃								LB
Ir(PPh ₃) ₂ Cl[C ₂ (CN) ₄]								MMR
KIr ₂ (CO) ₄ Cl ₄								KSP
K ₂ Ir ₂ (CO) ₄ Cl ₅								KSP
Ir(PMe ₂ Ph) ₂ Cl ₄								LB
Ir(PEt ₃) ₂ Cl ₄								LB
IrCl ₃								F
Ir(CO) ₃ Cl								KSP
Ir(ethylenediamine) ₃ I ₃								NB
Ir(ethylenediamine) ₃ (SCN) ₃								NB
Ir(ethylenediamine) ₃ (NO ₂) ₃								NB
Ir(ethylenediamine) ₃ Cl ₃								NB
Ir(ethylenediamine) ₃ (NO ₃) ₃								NB
K ₃ IrBr ₈								NBP
K ₃ IrCl ₈								NBP
K ₂ IrBr ₈								NBP
K ₃ Ir(CN) ₆								NBP
K ₂ IrCl ₆								CH1
K ₂ IrCl ₆								LB
K ₂ IrCl ₆								NBP
K ₃ Ir(NO ₂) ₆								NBP
(NH ₄) ₃ IrCl ₆								EPC
(NH ₄) ₂ IrCl ₆								EPC
KIrCl ₅ (NO)								NSB



COMPOUND	4f _{7/2} BINDING ENERGY, eV	REF.
Pt		Φ
Pt(PPh ₃) ₃		R
Pt(PPh ₃) ₄		R
Pt(PBu ₃) ₂ Cl ₂		CAB
Pt(PPh ₃) ₂ Cl ₂		CAB
Pt(PPh ₃) ₂ Cl ₂		R
Pt(PPh ₃) ₂ Me ₂		R
Pt(PPh ₃) ₂ Ph ₂		R
Pt(PPh ₃) ₂ I ₂		R
Pt(PPh ₃) ₂ HCl		R
Pt(OH) ₂		HW
Pt(PPh ₃) ₂ C ₂ H ₄		CAB
Pt(PPh ₃) ₂ C ₂ H ₄		MMR
Pt(PPh ₃) ₂ C ₂ F ₄		MMR
Pt(PPh ₃) ₂ C ₂ (CN) ₄		MMR
Pt(PPh ₃) ₂ O ₂		R
Pt(PEt ₃) ₂ Cl ₂		R
K ₂ PtCl ₄		R
K ₂ PtCl ₄		EPC
PtCl ₂		EPC
K ₂ Pt(CN) ₄		R
PtO		KWD
PtO		EPC
Pt(SO ₄) ₂ ·H ₂ O		HW
PtO ₂		KWD
PtO ₂		EPC
PtCl ₄		EPC
K ₂ PtCl ₆		LB
K ₂ PtCl ₆		EPC
K ₂ PtCl ₆		R
Pt(PMe ₂ Ph) ₂ Cl ₄		LB
Pt(PEt ₃) ₂ Cl ₄		LB
Pt(PEt ₃) ₂ Cl ₄		R
K ₂ Pt(CN) ₄ Cl ₂ ·3H ₂ O		CL
Pt(EtNH ₂) ₄ Cl ₂ ·4H ₂ O		CL



COMPOUND	4f _{7/2} BINDING ENERGY, eV										REF.
	80					85				90	
Au											JHB
Au											FKW
Au											MKL
Au											LPY
AgAu											WHP
AlAu ₂											FKW
Al ₂ Au											FKW
Al ₂ Au											WHP
Ga ₂ Au											WHP
SnAu											FHP
Sn ₄ Au											FHP
AuCN											KI2
AuCl											KI2
NaAuCl ₄											KI2



Mercury, Hg

Atomic Number **80**

COMPOUND

$4f_{7/2}$ BINDING ENERGY, eV

REF.

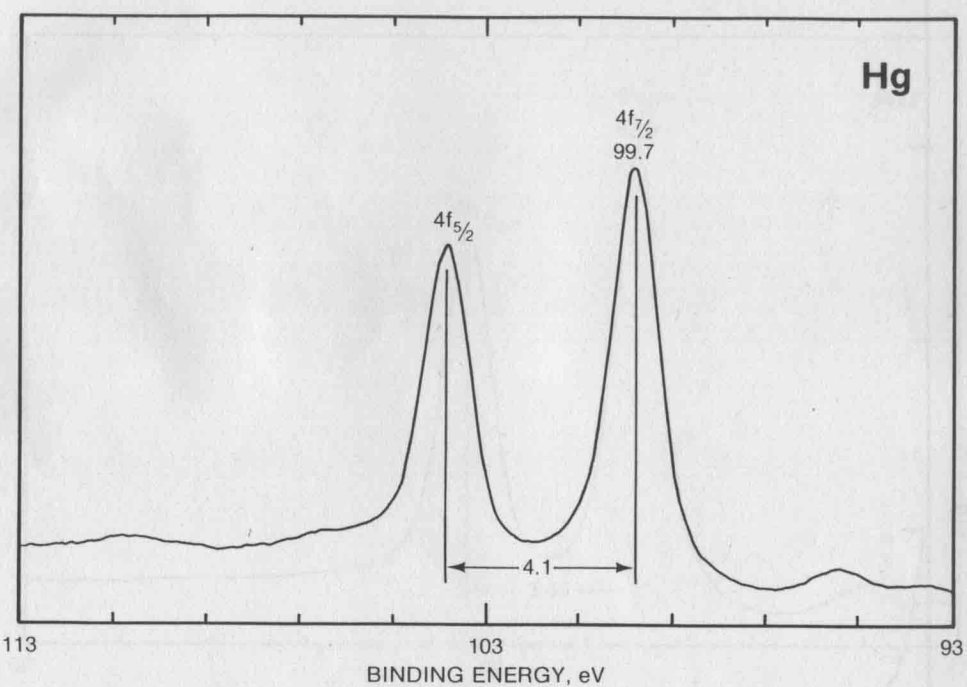
98

103

108

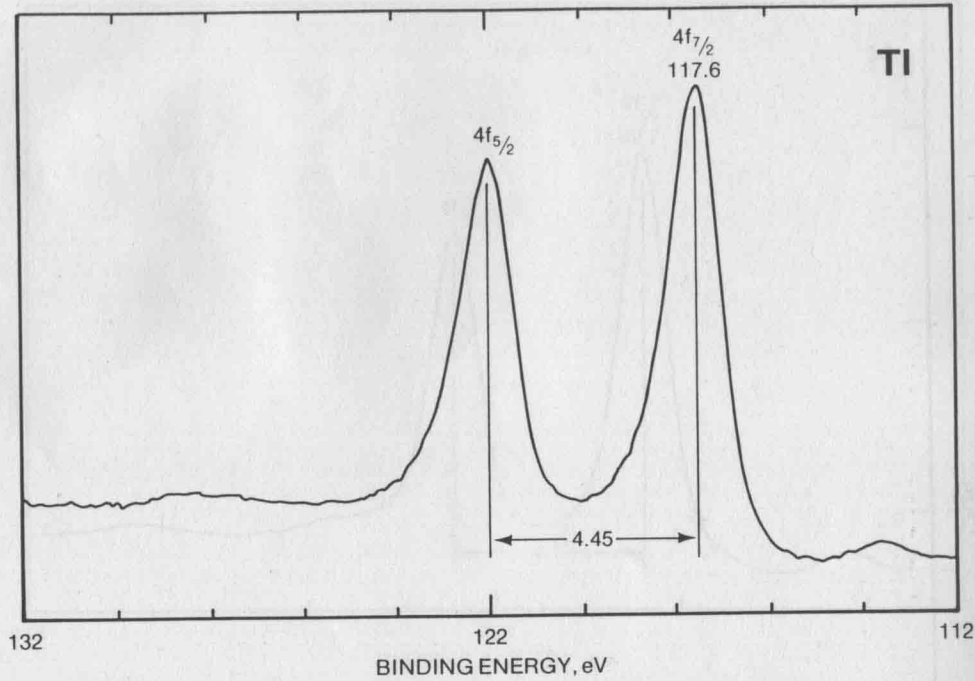
Hg
Hg
Hg

Φ
SMB
BM



Thallium, Tl Atomic Number 81

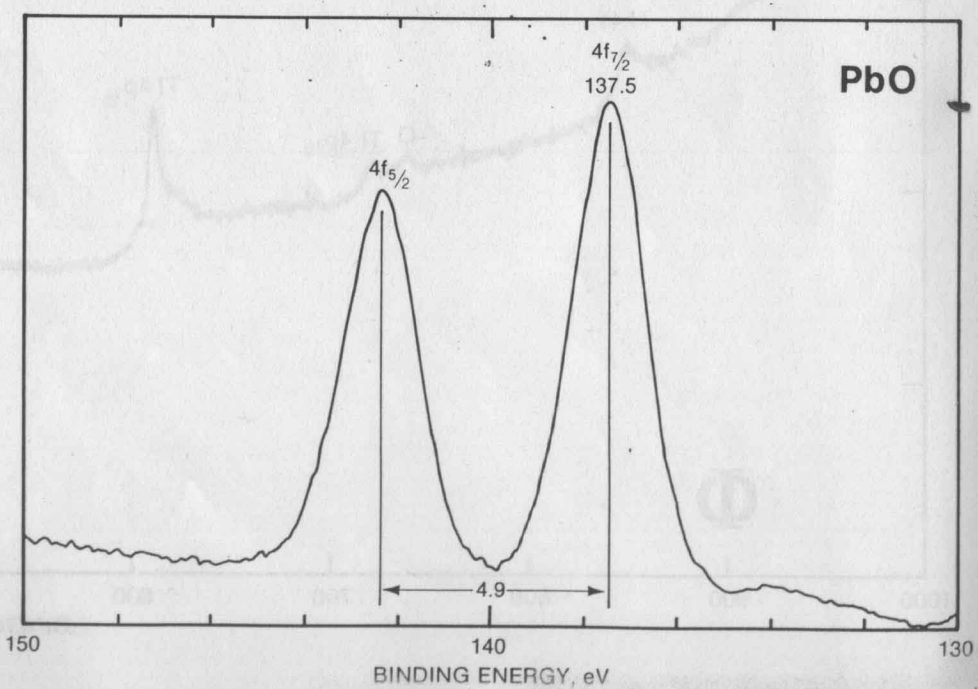
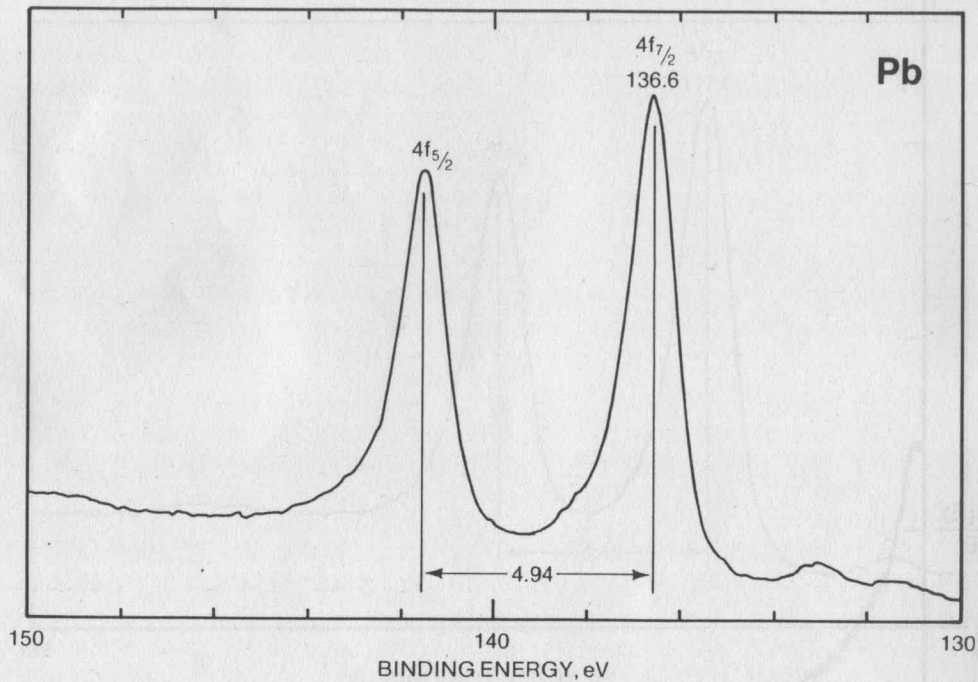
COMPOUND	4f _{7/2} BINDING ENERGY, eV										REF.	
	115					120					125	
Tl												Φ
Tl												MWM
TlI												MSC
Tl ₂ S												MSC
Tl ₂ S ₃												MSC
Tl ₂ O ₃												MSC
TlCl												MSC
TlBr												MSC
TlF												MSC



Lead, Pb

Atomic Number **82**

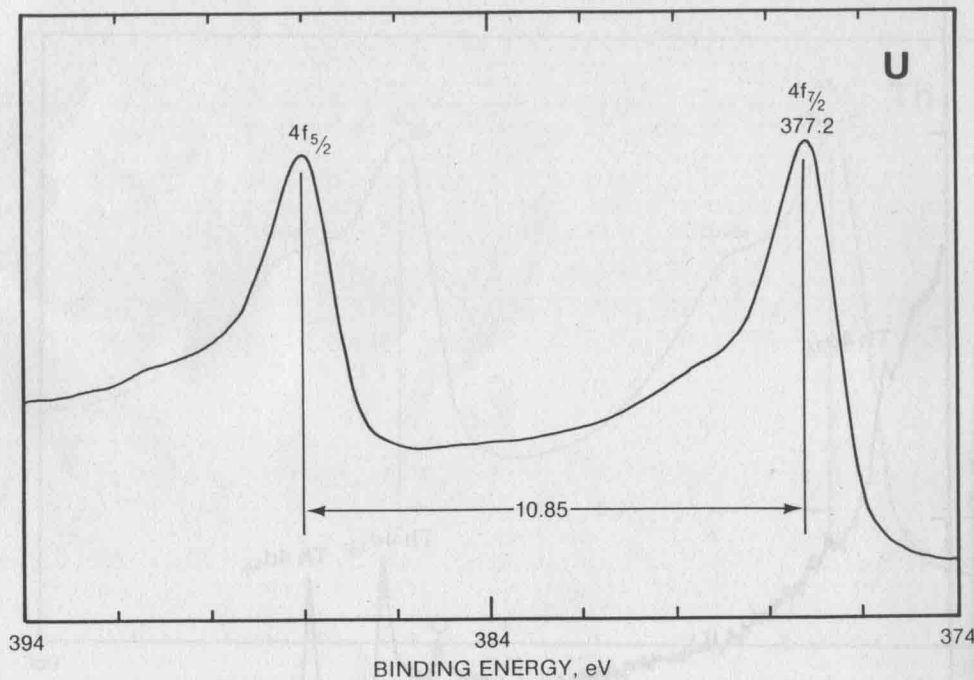
COMPOUND	$4f_{7/2}$ BINDING ENERGY, eV	REF.
Pb		Φ
Pb		LKM
Pb		BM
Pb		MWM
Pb		SFS
Pb		KOW
PbTe		SFS
PbSe		SFS
PbS		SFS
PbS		MV
Ph ₄ Pb		MV
PbI ₂		MV
PbO		KOW
PbO		Φ
PbO		MV
PbO		TT
Pb ₃ O ₄		MV
Pb ₃ O ₄		KOW
PbO ₂		KOW
PbO ₂		MV
Ph ₃ PbCl		MV
Ph ₂ PbCl ₂		MV
PbF ₂		MV



Uranium, U

Atomic Number **92**

COMPOUND	4f _{7/2} BINDING ENERGY, eV										REF.	
	375					380					385	
U												Φ
U												VRP
U												AT2
U												FBW
U _{ox}												FBW
UO ₂												AT2
UO ₂												VRP
UO ₂												CG
U ₃ O ₈												CG
UO ₃												CG
UO ₃												VRP
UF ₄												PMD
K ₂ UF ₆												PMD



Fluorine, F Atomic Number 9

Compound	1s	KL ₂₃ L ₂₃	$\alpha + h\nu$	Ref.
LiF	684.9	654.9	1339.8	Φ
LiF*	684.6	655.8	1340.4	W1
NaBF ₄	686.8	653.0	1339.8	W1
C ₄ F ^{b)}	687.2	656.7	1343.9	W1
CF ^{b)}	689.2	653.1	1342.3	W1
(CF ₂) _n	689.1	652.1	1341.2	W3
Ni(OOCCF ₃) ₂	688.2	653.1	1341.3	W1
NaF	684.2	655.2	1339.4	W3
MgF ₂	685.3	654.3	1339.6	W3
(NH ₄) ₃ AlF ₆	684.5	655.4	1339.9	W1
Na ₃ AlF ₆ *	685.3	654.3	1339.6	W1
K ₃ AlF ₆ *	685.1	654.4	1339.5	W1
Na ₂ SiF ₆	685.8	653.2	1339.0	W3
CoSiF ₆	685.8	654.5	1340.3	W1
CaF ₂	684.6	655.6	1340.2	W1
Na ₂ TiF ₆	685.1	655.3	1340.4	W3
K ₂ TiF ₆ *	684.8	655.9	1340.7	W1
MnF ₂ *	684.6	655.7	1340.3	W1
K ₃ FeF ₆	683.8	656.2	1340.0	W1
Fe(MPT)PF ₆ ^{a)}	686.1	654.3	1340.4	W1
NiF ₂	684.9	655.6	1340.5	GW
NiF ₂ *	684.8	655.8	1340.6	W1
CuF ₂	684.1	657.2	1341.3	GW
CuF ₂	684.5	656.4	1340.9	W1

Compound	1s	KL ₂₃ L ₂₃	$\alpha + h\nu$	Ref.
ZnF ₂	684.3	655.8	1340.3	GW
ZnF ₂ *	684.8	655.8	1340.6	W3
Na ₂ GeF ₆ *	685.7	654.2	1339.9	W1
SrF ₂	684.8	656.5	1341.3	W1
YF ₃	685.1	656.0	1341.1	W1
Na ₂ ZrF ₆ *	684.8	655.3	1340.1	W1
K ₂ NbF ₇ *	685.2	655.4	1340.6	W1
AgF	682.5	659.5	1342.0	GW
CdF ₂	684.4	656.0	1340.4	GW
CdF ₂	684.2	656.4	1340.6	W1
InF ₃	685.0	656.6	1341.6	W1
NaSnF ₃ *	685.1	654.6	1339.7	W1
KSbF ₆	686.4	654.1	1339.5	W3
CsF	685.7	654.0	1339.7	W1
BaF ₂	683.5	656.4	1340.0	W1
LaF ₃	684.3	658.2	1342.5	W1
PrF ₃	684.4	657.4	1341.8	W1
NdF ₃ *	684.6	657.2	1341.8	W1
SmF ₃ *	684.4	657.2	1341.6	W1
HfF ₄ *	685.2	655.5	1340.7	W1
K ₂ TaF ₇ *	685.0	655.2	1340.2	W1
PbF ₂	683.4	658.7	1342.1	W1
ThF ₄	684.7	657.2	1341.9	W1

Sodium, Na

Atomic Number **11**

Compound	1s	KL ₂₃ L ₂₃	$\alpha + h\nu$	Ref.
Na	1071.5	994.4	2065.9	KL1
Na	1071.8	994.5	2066.3	BS
Na ox	1072.5	990.0	2062.5	BS
NaF	1071.1	988.8	2059.9	W3
NaCl	1071.4	990.4	2061.8	W3
NaBr	1071.6	990.8	2062.4	W3
NaI	1071.5	991.4	2062.9	W1
NaOAc	1070.8	990.2	2061.0	W3
Na ₂ CO ₃	1071.3	990.0	2061.3	W1
NaHCO ₃ *	1071.1	990.0	2061.1	W1
NaOOCH*	1070.9	990.0	2060.9	W1
Na ₂ C ₂ O ₄ *	1070.6	990.7	2061.3	W1
Na thioglycollate*	1071.0	990.6	2061.6	W1
Na EDTA ^a *	1070.6	990.6	2061.2	W1
NaNO ₂ *	1071.4	990.0	2061.4	W3
NaNO ₃	1071.2	989.6	2060.8	W3
NaBF ₄	1072.5	987.3	2059.8	W3
Na ₃ AlF ₆	1071.7	988.4	2060.1	W3
Na ₂ SiF ₆	1071.5	987.9	2059.4	W3
Na ₂ TiF ₆ *	1071.4	988.7	2060.1	W3
Na ₂ GeF ₆	1071.5	988.3	2059.8	W3

Compound	1s	KL ₂₃ L ₂₃	$\alpha + h\nu$	Ref.
Na ₂ ZrF ₆	1071.4	988.8	2060.2	W3
Na zeolite	1071.6	989.0	2060.6	W3
NaPO ₃	1071.6	989.4	2061.0	W3
Na ₂ HPO ₄	1071.4	990.1	2061.5	Φ
Na ₂ SO ₃ *	1071.2	990.4	2061.6	W3
Na ₂ S ₂ O ₃ *	1071.4	990.3	2061.7	W3
Na ₂ S ₂ O ₄	1071.0	990.8	2061.8	W3
Na ₂ SO ₄	1071.0	990.0	2061.0	W3
Na benzenesulfonate*	1071.1	989.9	2061.0	W1
Chloramine-T ^b *	1071.6	989.2	2060.8	W1
Na ₂ CrO ₄	1071.0	991.1	2062.1	W3
Na ₂ Cr ₂ O ₇ *	1071.4	990.6	2062.0	W1
NaAsO ₂	1070.7	990.8	2061.5	W3
Na ₂ SeO ₃	1070.6	991.1	2061.7	W3
Na ₂ MoO ₄ *	1070.7	990.2	2060.9	W3
Na ₂ PdCl ₄ *	1071.6	990.4	2062.0	W3
Na ₂ SnO ₃ ·3H ₂ O*	1070.9	990.5	2061.4	W1
Na ₂ TeO ₄ *	1070.9	990.6	2061.5	W3
Na ₂ WO ₄ *	1071.1	990.6	2061.7	W3
Na ₂ IrCl ₆ ·6H ₂ O*	1071.7	989.4	2061.1	W3
NaBiO ₃ *	1071.1	991.1	2062.2	W1

Copper, Cu

Atomic Number

29

Compound	2p _{3/2}	L ₃ M ₄₅ M ₄₅	α + hν	Ref.
Cu	932.4	918.6	1851.0	Φ
Cu*	932.0	919.2	1851.2	S3
Cu*	932.4	919.0	1851.4	GW
Cu*	932.2	919.2	1851.4	MRC
Cu*	932.6	918.2	1850.8	KPM
Cu*	932.5	918.8	1851.3	FKW
Cu*	932.4	918.8	1851.2	W3
Al ₂ Cu	933.6	918.3	1851.9	FKW
Cu ₂ O	932.2	917.4	1849.6	GW
Cu ₂ O*	932.2	917.6	1849.8	MRC
Cu ₂ O*	932.2	916.9	1849.1	W3
CuCN	932.9	914.7	1847.6	W3
CuCl	932.2	915.8	1848.0	GW
CuCl	932.4	915.2	1847.6	W3
Cu ₂ S	932.3	917.6	1849.9	W3
CuCO ₃	934.8	916.5	1851.3	W1
CuO	933.5	917.9	1851.4	MRC
CuO*	933.4	918.3	1851.7	GW
CuO*	933.0	917.9	1850.9	S3
CuF ₂	936.8	915.0	1851.3	W1
CuF ₂	935.9	916.2	1852.1	GW
CuSiO ₃	934.7	915.4	1850.1	W1
CuSO ₄ aq	935.3	916.1	1851.4	Φ
CuCl ₂ *	934.2	915.7	1849.9	GW
CuCl ₂ *	935.0	915.3	1850.3	W1
CuPT(PF ₆) ₂ ^{a)}	933.8	916.1	1849.9	W1

Zinc, Zn

Atomic Number

30

Compound	2p _{3/2}	L ₃ M ₄₅ M ₄₅	α + hν	Ref.
Zn	1021.4	992.4	2013.8	Φ
Zn*	1021.7	992.2	2013.9	W3
Zn*	1021.5	992.7	2014.2	S1
Zn*	1021.7	992.6	2014.3	CE
Zn*	1021.8	992.0	2013.8	KL2
Zn*	1021.6	992.0	2013.6	KPM
Zn*	1022.1	992.0	2014.1	GW
Zn*	1021.9	992.3	2014.2	HF2
Zn*	1021.4	992.5	2013.9	MD
ZnO	1021.7	988.8	2010.5	Φ
ZnO	1022.5	987.7	2010.2	GW
ZnO*	1022.5	987.6	2010.0	HF2
Zn ox	1021.8	988.2	2010.0	W3
Zn ox	1021.9	989.1	2011.0	CE
Zn acac ₂	1021.2	987.9	2009.1	W3
ZnF ₂	1022.4	986.7	2009.1	W3
ZnF ₂	1022.2	986.2	2008.4	GW
ZnS	1022.4	988.2	2010.6	HF2
ZnS	1022.0	989.7	2011.7	GW
ZnBr ₂	1023.2	987.5	2010.7	W3
ZnI ₂	1022.9	988.7	2011.6	GW
ZnPT(BF ₄) ₂ ^{a)}	1021.1	988.5	2009.6	W1
ZnTe	1022.0	991.3	2011.3	HF2

Arsenic, As Atomic Number 33

Compound	3d	$L_3M_{45}M_{45}$	$\alpha + h\nu$	Ref.
As	41.3	1225.4	1266.7	W1
As	41.3	1226.3	1267.6	RWJ
As	41.6	1225.2	1266.8	BWW
NbAs	40.6	1226.2	1266.8	BWW
GaAs	40.7	1225.6	1266.3	Φ
As ₂ Se ₃	42.8	1223.5	1266.3	BWW
AsI ₃	43.3	1223.1	1266.4	BWW
MeAsI ₂	43.3	1222.5	1265.8	BWW
As ₂ S ₃	43.3	1222.2	1265.5	BWW
As ₄ S ₄	42.9	1222.9	1265.8	BWW
Ph ₃ As	42.2	1221.3	1263.5	BWW
Ph ₃ AsS	43.9	1220.2	1264.1	BWW
Me ₃ AsS	43.8	1219.5	1263.3	BWW
AsBr ₃	45.1	1218.3	1263.4	BWW
As ₂ O ₃	44.2	1219.1	1263.3	BWW
As ₂ O ₃	44.8	1219.0	1263.8	W1
As ₂ O ₅	46.0	1217.6	1263.6	BWW
NaAsO ₂	44.0	1219.6	1263.6	W1
Na ₂ HAsO ₄	45.3	1217.3	1262.6	W1
Ph ₃ AsO*	44.1	1219.7	1263.8	BWW
Ph ₂ AsO(OH)*	44.2	1219.2	1263.4	BWW
PhAsO(OH) ₂ *	45.0	1218.6	1263.6	BWW
BuAsO(OH) ₂ *	44.9	1218.5	1263.4	BWW
(C ₁₀ H ₂₁) ₂ AsO(OH)	43.8	1219.2	1263.0	BWW
Me ₂ AsO(OH)	44.4	1218.6	1263.0	BWW
KAsF ₆ ^{a)}	47.6	1214.0	1261.6	W1

*Omitted from plot because of crowding

a) Displayed at edge of chart at proper Auger parameter, although true point is off chart.

b) 6.0eV added to kinetic energy data on $M_5N_{45}N_{45}$ to obtain kinetic energy of $M_4N_{45}N_{45}$ line.

c) CdO believed hydrated.

Silver, Ag Atomic Number 47

Compound	3d _{5/2}	$M_4N_{45}N_{45}$	$\alpha + h\nu$	Ref.
Ag	367.9	358.1	726.0	Φ
Ag*	368.0	358.4	726.4	W3
Ag*	368.1	358.2	726.3	S2
Ag*	368.0	357.8 ^{b)}	725.8	GW
Ag*	367.9	358.0	725.9	FKW
AlAg ₂	368.4	358.0	726.4	FKW
Ag ₂ O	367.6	356.9 ^{b)}	724.5	GW
Ag ₂ O	367.7	356.8	724.5	S2
AgO	367.2	356.8 ^{b)}	724.0	GW
AgO	367.4	357.4	724.8	S2
AgO	367.8	355.7	723.5	W1
AgI	367.8	356.3 ^{b)}	724.1	GW
AgOOCFF ₃	368.6	355.3	723.9	W3
Ag ₂ SO ₄	368.1	354.4	722.5	W3
Ag ₂ SO ₄	367.7	355.3 ^{b)}	723.0	GW
AgF	367.5	355.5 ^{b)}	723.0	GW
AgF ₂	367.1	355.8 ^{b)}	722.9	GW

Cadmium, Cd Atomic Number 48

Compound	3d _{5/2}	$M_4N_{45}N_{45}$	$\alpha + h\nu$	Ref.
Cd	404.8	383.9	788.7	Φ
Cd*	404.7	383.9	788.6	W3
Cd*	404.7	384.2 ^{b)}	788.9	GW
CdTe	404.8	382.7 ^{b)}	787.5	GW
CdSe	405.1	381.7 ^{b)}	786.8	GW
CdS	405.1	381.4 ^{b)}	786.5	GW
CdI ₂	405.2	381.3 ^{b)}	786.5	GW
CdO	404.0	382.5 ^{b)}	786.5	GW
Cd(OH) ₂ ^{c)}	404.9	380.2	785.1	W1
CdF ₂	405.7	379.1 ^{b)}	784.8	GW
CdF ₂	405.6	379.0	784.6	W3

Indium, In

 Atomic Number **49**

Compound	$3d_{5/2}$	$M_4N_{45}N_{45}$	$\alpha + h\nu$	Ref.
In	443.6	410.6	854.2	Φ
In	444.0	410.6	854.6	W3
In	443.6	410.9	854.5	LAK
InTe	444.1	409.4	853.5	W1
In ₂ Te ₃	444.3	409.1	853.4	W1
InSe	444.8	408.2	853.0	W1
In ₂ Se ₃	444.6	408.5	853.1	W1
InS	444.3	408.5	852.8	W1
In ₂ S ₃	444.5	407.5	852.0	W3
InI ₃	445.6	406.0	851.6	W3
InBr ₃	445.8	405.0	850.8	W3
InCl	444.6	405.9	850.5	W3
InCl ₃	445.8	404.8	850.6	W3
In ₂ O	444.1	407.0	851.1	W3
In ₂ O ₃	444.7	406.9	851.6	LAK
In ₂ O ₃	444.1	406.6	850.7	W3
In ox	445.3	406.4	851.7	W2
In(OH) ₃	444.8	405.2	850.0	W1
InF ₃	445.8	404.2	850.0	W3
(NH ₄) ₃ InF ₆	445.4	404.3	849.7	W3

Tellurium, Te

 Atomic Number **52**

Compound	$3d_{5/2}$	$M_4N_{45}N_{45}$	$\alpha + h\nu$	Ref.
Te	572.7	492.4	1065.1	Φ
Te	573.2	491.7	1064.9	W3
Te	572.9	492.0	1064.9	BWI
Ph ₂ Te ₂	573.7	498.7	1062.4	BWI
PhTeI ₃	575.6	498.4	1064.0	BWI
Ph ₂ TeI ₂	575.2	497.8	1062.9	BWI
Et ₂ TeI ₂	575.1	497.8	1062.9	BWI
Me ₂ TeI ₂ *	575.4	497.8	1063.2	BWI
TeBr ₄	576.5	497.5	1064.0	BWI
PhTeBr ₃	576.4	497.0	1063.4	BWI
R ⁺ Br ^{-a)}	575.0	497.3	1062.3	BWI
(FC ₆ H ₄)TeBr ₃ *	576.1	497.2	1063.3	BWI
MeC ₆ H ₄ TeBr ₂ *	575.8	496.8	1062.6	BWI
BuTeBr ₃ *	576.4	496.7	1063.1	BWI
Ph ₂ TeBr ₂ *	576.0	496.9	1062.9	BWI
TeO ₂	575.9	497.3	1063.2	BWI
TeO ₃	577.1	495.7	1062.8	BWI
Te(OH) ₆	576.5	495.7	1062.2	BWI
Te ox*	576.9	496.5	1063.4	W3
Na ₂ TeO ₄	576.6	496.5	1063.1	W3
TeCl ₄	576.7	496.3	1063.0	BWI
Ph ₂ TeCl ₂	576.0	496.5	1062.5	BWI
(p-MeOC ₆ H ₄)TeCl ₃	576.5	496.1	1062.6	BWI
Te tu ₂ Cl ₂	574.1	498.9	1063.0	BWI
Te tu tm Cl*	576.1	496.8	1062.9	BWI
(NH ₄) ₂ TeCl ₆ *	576.3	497.0	1063.3	BWI
(p-MeC ₆ H ₄)TeOOH	575.9	496.8	1062.7	BWI