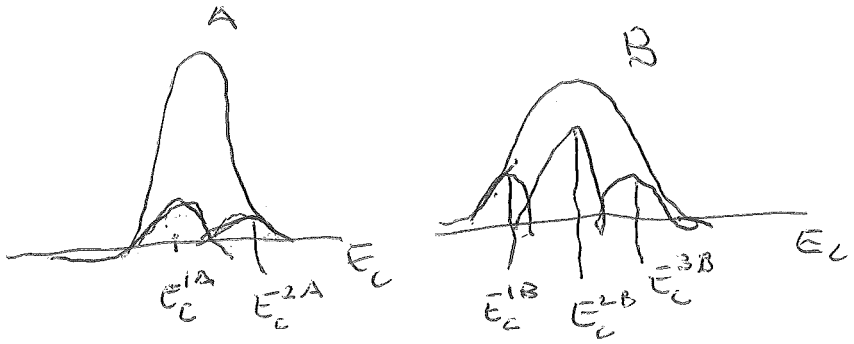


$\frac{N_A}{N_B} = ?$

$I = N\sigma E_c^{-0,25}$

$I^A = I_1^A + I_2^A = N_A\sigma_A(E_c^{1A})^{-0,25} + N_A\sigma_A(E_c^{2A})^{-0,25} = N_A\sigma_A\left[(E_c^{1A})^{-0,25} + (E_c^{2A})^{-0,25}\right]$

$I^B = I_1^B + I_2^B = N_B\sigma_B\left[(E_c^{1B})^{-0,25} + (E_c^{2B})^{-0,25} + E_c^{-0,25}\right]$

Como se calcula E_c?

$E_c = E_\lambda - E_B$

Para o R-x de 1487 eV, Kα Al

$E_c = 1487 - E_B$

E como se calcula σ_λ?

Na tabela do Scofield

Tabelas de seção de choque no artigo do Scofield

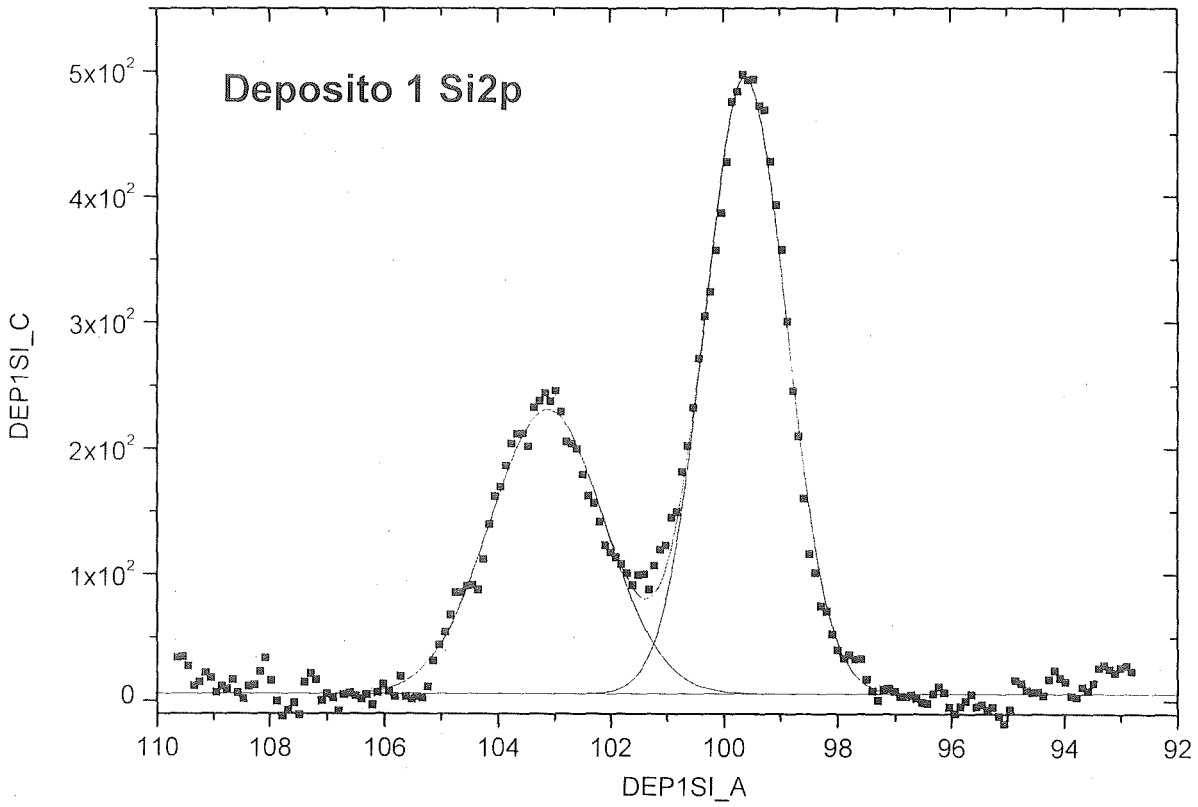
Com o material que está no site, para o filme de TiO_2 o cálculo $\frac{No}{N_{Ti}} \approx 2$ empregando o pico $2p_{3/2}$ para Ti.

Note-se que os espectros tirados no espectrômetro do Prof. Richard Landers são para raios-X de Al (1487eV) e os espectros padrão de Ti e oxigênio são para Mg Kα (1254 eV).

Com os dados pode-se fazer também C/O e Ti/C.

Peak Analysis Title

Source File: DEP1SI	Data Set: DEP1SI_C	Date:24
Chi^2=173,1686665	COD=0.98984	# of Data Points=173
SS=28919,16731	Corr Coef=0,99491	Degree of Freedom=167



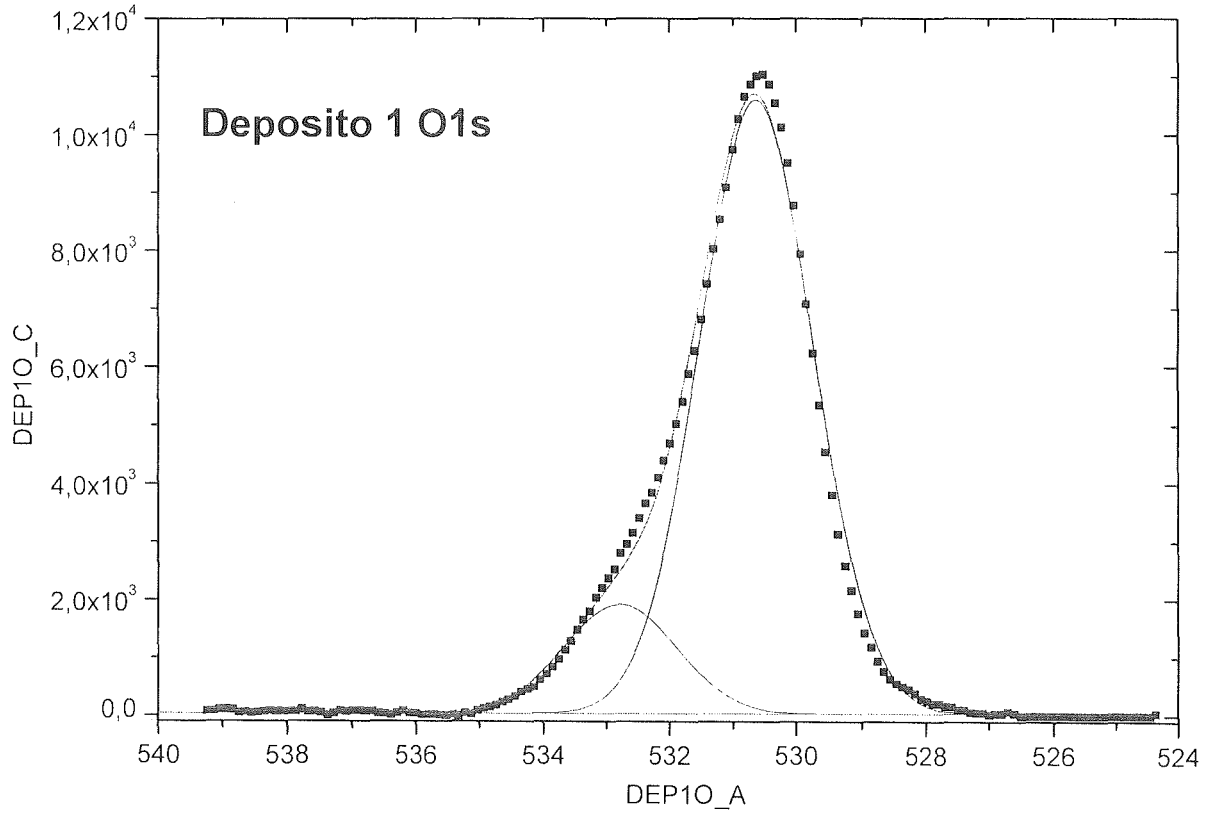
Fitting Results

Peak #	Peak Type	AreaFitT	FWHM	MaxHeight	CenterGrvty	AreaFitTP
1	Gaussian	887.8984	1.70486	489.26272	99.60743	60.88731
2	Gaussian	570.36662	2.37676	225.44338	103.12432	39.11269
		1458.26502				

BaseLine: Constant

Peak Analysis Title

Source File: DEP1O	Data Set: DEP1O_C	Date:24
Chi^2=42125.84022	COD=0.99583	# of Data Points=153
SS=6234624.353	Corr Coef=0.99791	Degree of Freedom=148



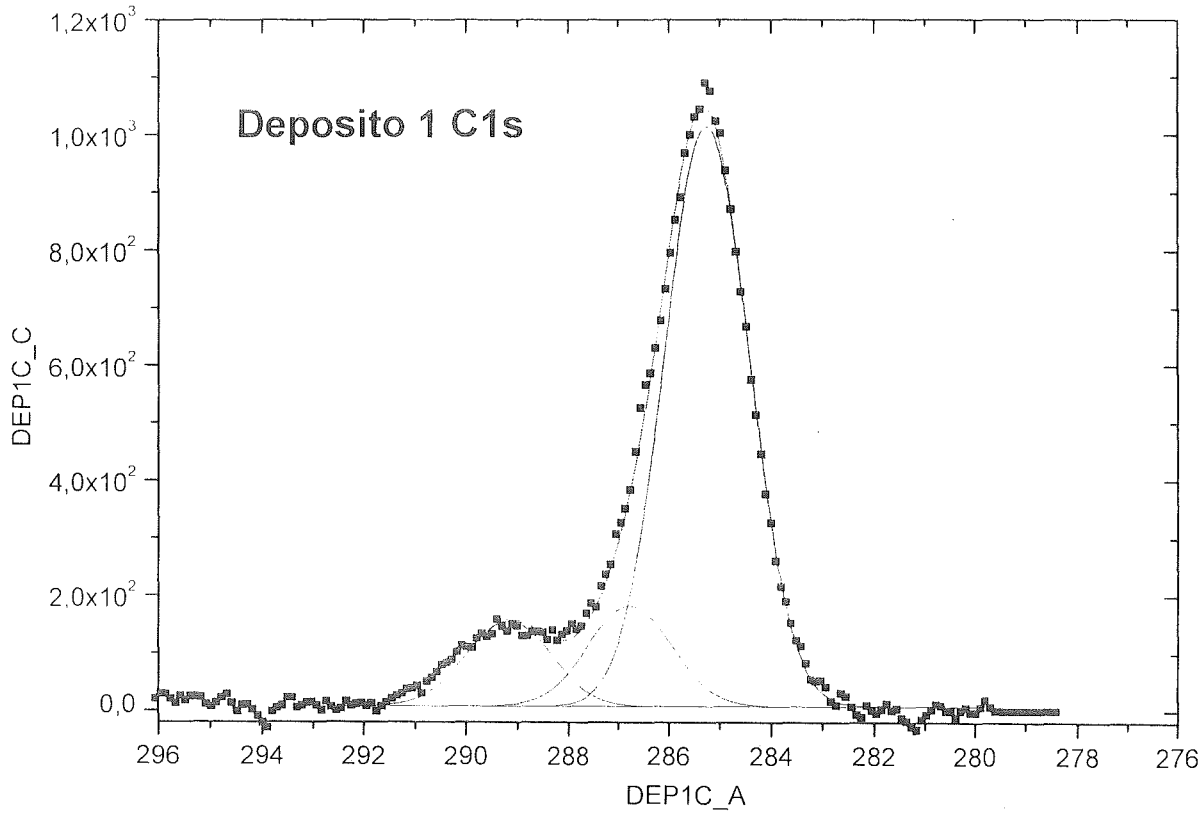
Fitting Results

Peak #	Peak Type	AreaFitT	FWHM	MaxHeight	CenterGrvty	AreaFitTP
1	Gaussian	23626.75022	2.1	10569.46299	530.62952	84.79993
2	Gaussian	4235.00763	2.1	1894.53712	532.78088	15.20007
		27861.75785				

BaseLine: Constant

Peak Analysis Title

Source File: DEP1C	Data Set: DEP1C_C	Date:24
Chi^2=241,8935289	COD=0,99704	# of Data Points=181
SS=41605,68697	Corr Coef=0,99852	Degree of Freedom=172

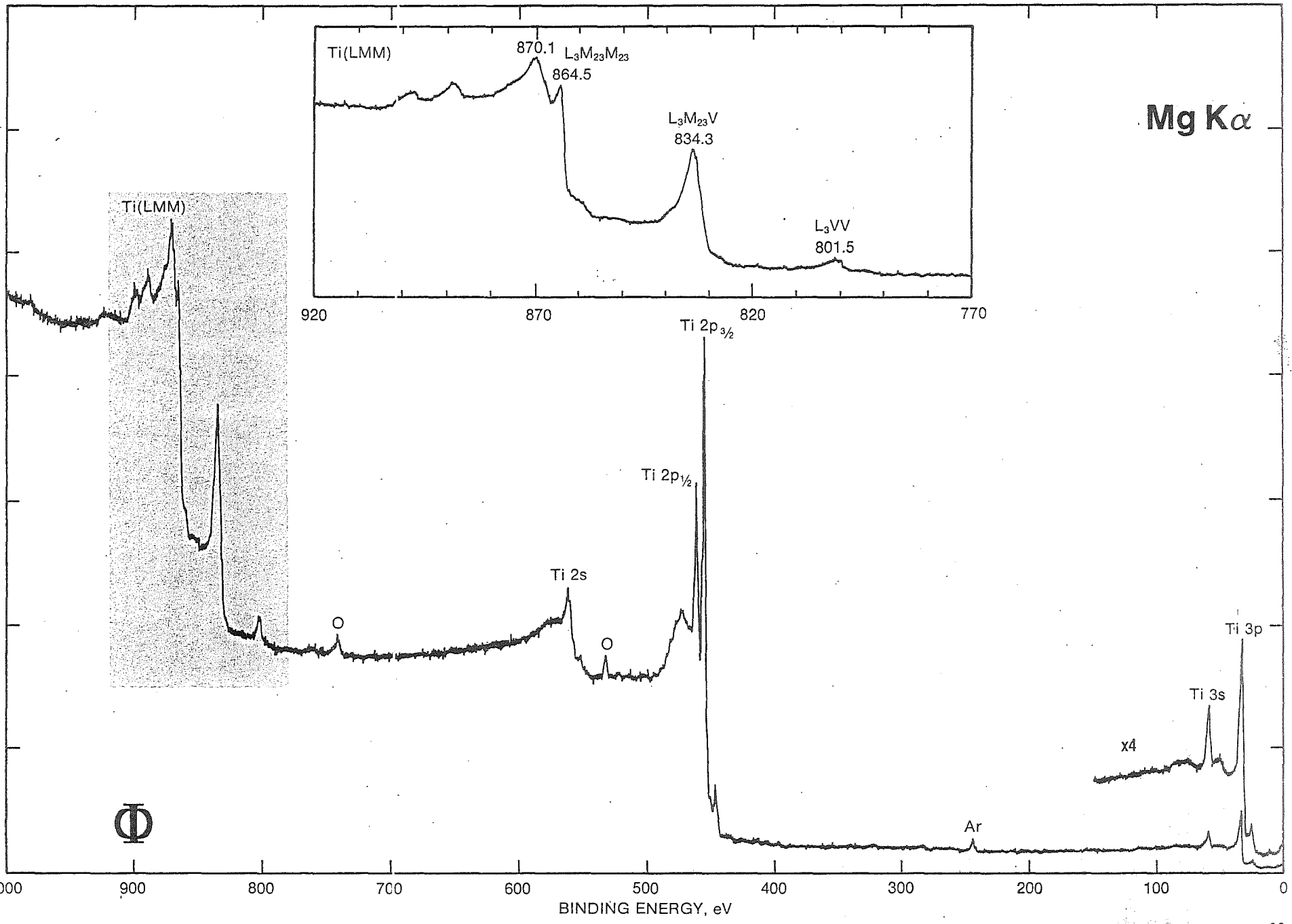


Fitting Results

Peak #	Peak Type	AreaFitT	FWHM	MaxHeight	CenterGrvty	AreaFitTP
1	Gaussian	2085.5346	1.94632	1006.63466	285.25927	75.7324
2	Gaussian	361.85411	1.94632	174.6578	286.76921	13.14008
3	Gaussian	306.43199	1.94632	147.90695	289.16752	11.12752
		2753.82071				

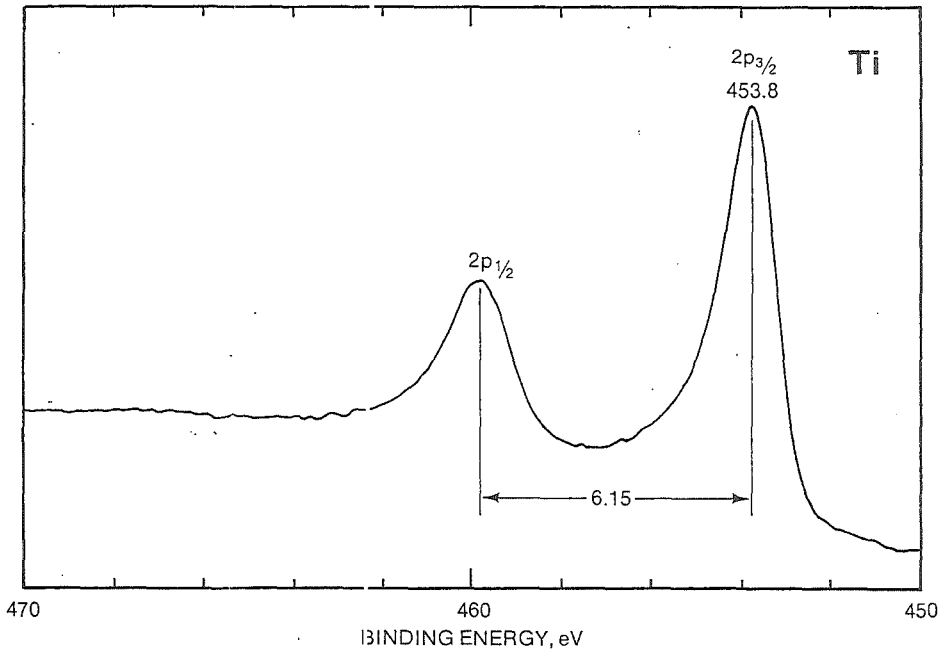
BaseLine: Constant

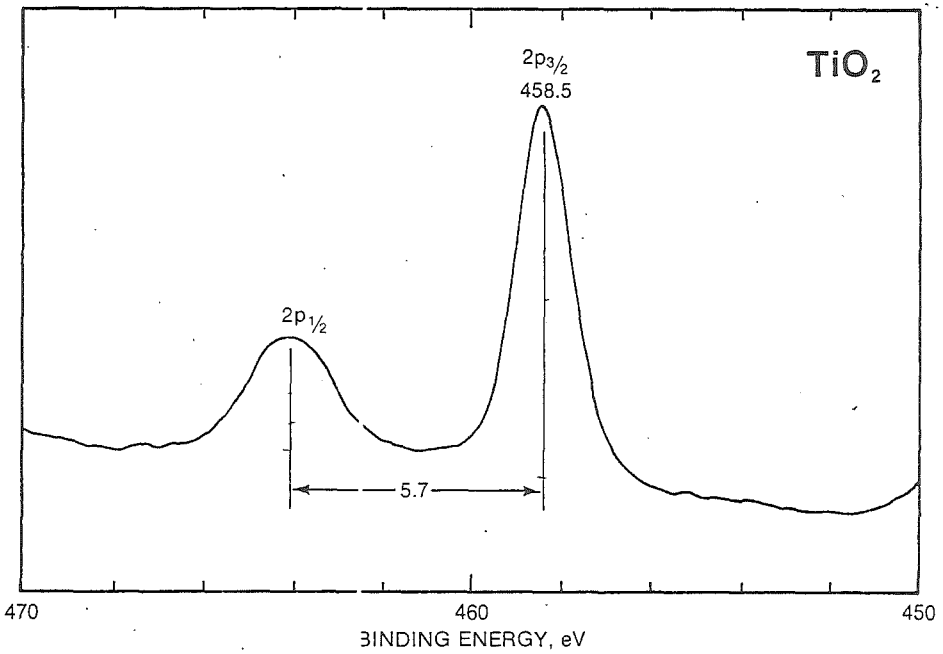
Titanium, Ti Atomic Number 22



Titanium, Ti Atomic Number 22

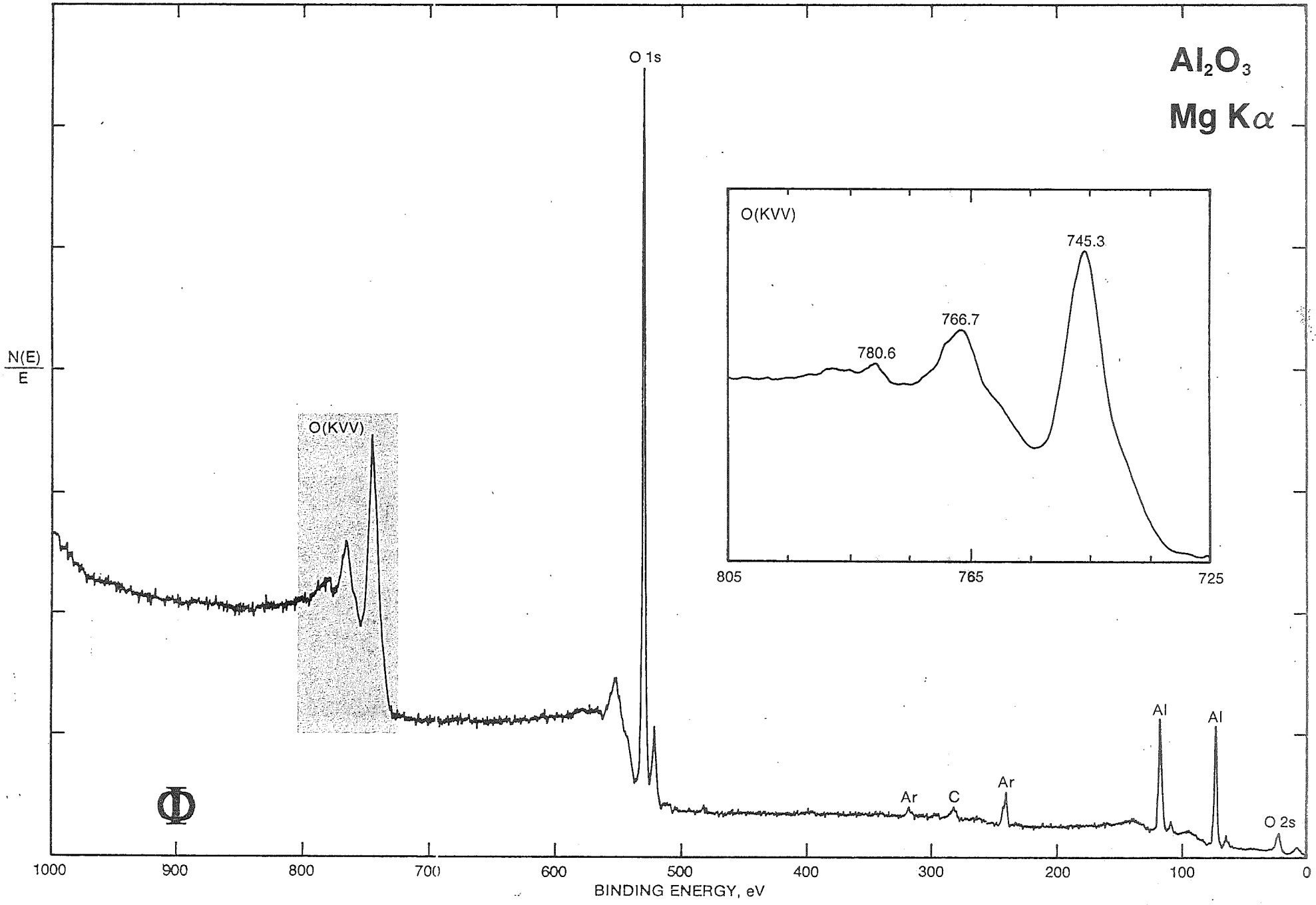
COMPOUND	$2p_{3/2}$ BINDING ENERGY, eV (453 – 458 – 463)	REF.
Ti		Φ
Ti		RH1
Ti		NSC
Ti		PJH
TiH_2		NSC
TiB_2		RH1
TiB_2		MEC
TiS		FUM
TiC		RH1
TiC		IK1
TiN		RH1
TiN		STA
TiO		FUM
$C_5H_5TiC_7H_7$		GSM
$(C_5H_5)_2TiCl$		GSM
$BaTiO_3$		MWI
$PbTiO_3$		MWI
$SrTiO_3$		MWI
$CaTiO_3$		MWI
TiO_2		RH1
TiO_2		NSC
TiO_2		Φ
TiO_2		MWI
$(C_5H_5)_2TiCl_2$		GSM
$TiCl_3$		GSM
Na_2TiF_6		W1





Oxygen, O

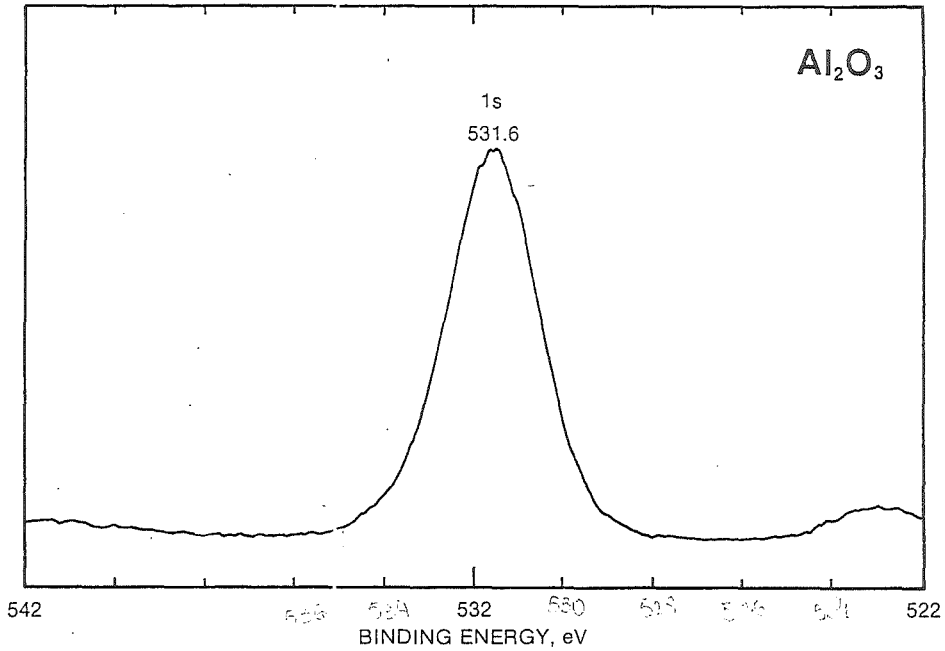
Atomic Number 8



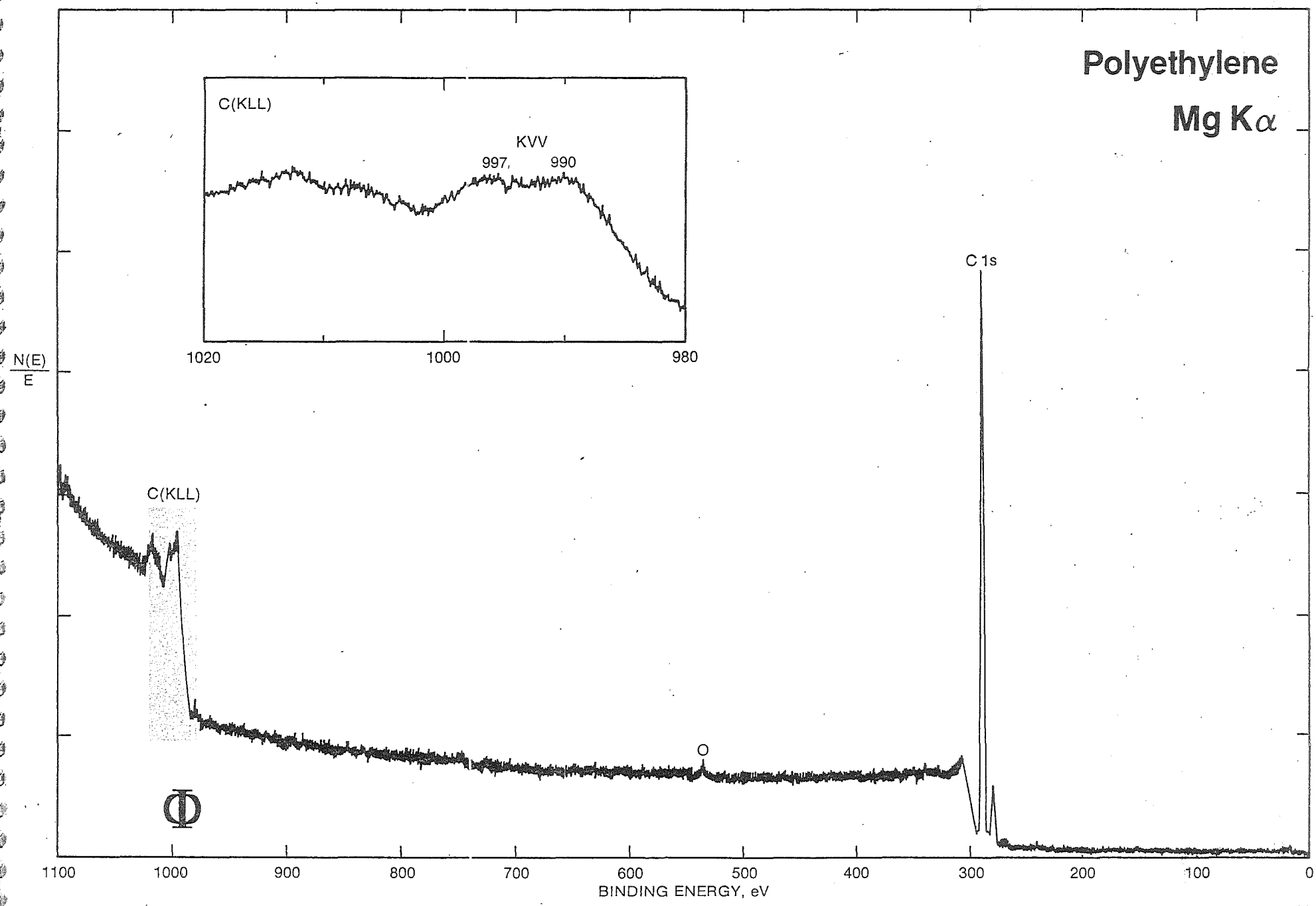
Oxygen, O

Atomic Number 8

COMPOUND	1s BINDING ENERGY, eV (525 – 530 – 535)	REF.
RuO_2		KBA
NiO		KBA
Fe_2O_3		KI1
RuO_3		KBA
WO_3		CR
Cr_2O_3		AC1
Cu_2O		RBO
Ni_2O_3		KBA
$Ni(OH)_2$		KBA
KOH		KI1
Al_2O_3		Φ
Na zeolite		MWJ
SiO_2 gel		MWJ
$Al(OH)_3$		FWF
$CaCO_3$		S4
$Na_2S_2O_3$		LHJ
Na_2SO_3		LHJ
Na_2SO_4		LHJ
$CsClO_4$		MVS
Li_2CrO_4		AC1
$CuCrO_2$		AC1
$Na_2Cr_2O_7$		AC1
$CoMoO_4$		PCL
$CoAl_2O_4$		PCL
$Al_2(MoO_4)_3$		PCL
$Al_2(WO_4)_3$		NH2
$Cr(CO)_6$		PFD
R_2SO		ML
R_2SO_2		ML
$H_2NC_6H_4SO_3H$		HS
$H_2NC_6H_4SO_2NH_2$		LHJ
RSO_3Na		LHJ
poly (methyl methacrylate)		CT
Et_2O		CT
PhOCOOPh		CT

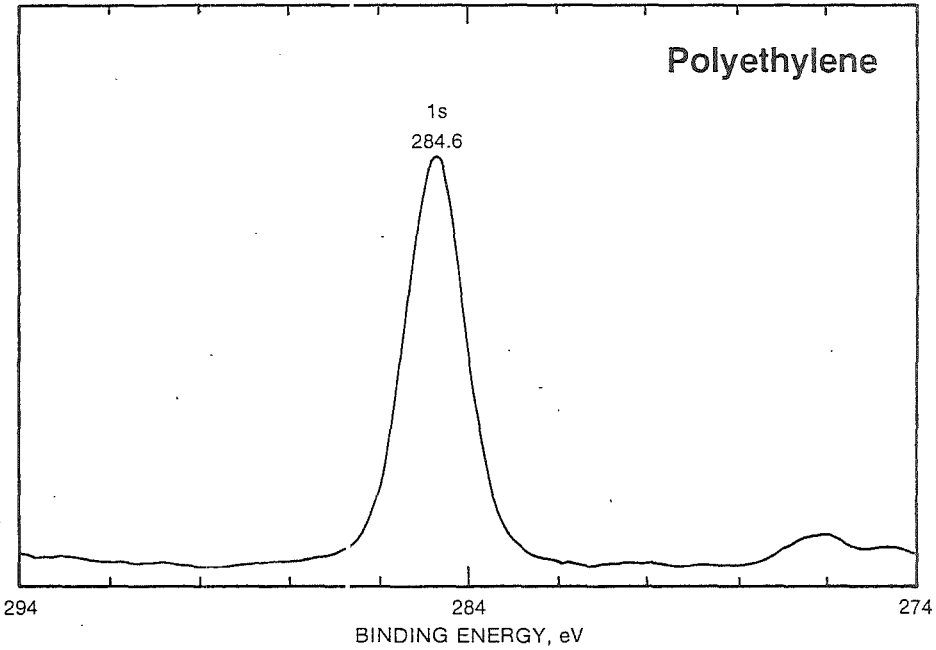


Carbon, C Atomic Number 6



Carbon, C Atomic Number 6

COMPOUND	1s BINDING ENERGY, eV (280 284 288 292 296)	REF.
HfC		RH1
TiC		RH1
WC		RH1
C (graphite)		HJG
$(CH_2)_n$		Φ
$Mn(C_5H_5)_2$		BCD
$SnPh_4$		BAL
$MeCH_2NH_2$		GHH
$Cr(C_6H_6)_2$		PFD
$MeCH_2Cl$		GHH
$MeCH_2OH$		GHH
$MeCH_2OEt$		GHH
$MeCH_2OOCMe$		GHH
CS_2		GHH
$Fe(CO)_5$		BC1
Me_2CO		GHH
$(NH_2)_2CO$		GHH
C_6F_6		GHH
MeCOONa		GHH
MeCOOEt		GHH
MeCOOH		GHH
Na_2CO_3		GHH
$NaHCO_3$		GHH
CO		BC1
CO_2		GHH
$(CHFCH_2)_n$		CFK
$(CHFCHF)_n$		CFK
$(CHFCF_2)_n$		CFK
$(CF_2CH_2)_n$		CFK
$(CF_2CHF)_n$		CFK
$(CF_2)_n$		CFK
CF_3COONa		GHH
CCl_4		GHH
CF_3COMe		GHH
CF_3COOEt		GHH



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