28/10/2021

ABU DHABI

CAPODANNO!!!

✉ = 01/01/2010

Sample Ag Mg Kα $p = 1 \times 10^{-8}$ mbar

# 1	[1104 - -6]	PE = 50 eV	ΔE = 0.5	τ = 0.3	Wide
# 3	[382 - 360]	PE = 25 eV	ΔE = -0.1	"	Ag 3d
# 4	[300 - 275]	"	"	"	C 1s
# 5	[550 - 520]	"	"	"	O 1s

UPS Settings → others → 21.2 High Magn (1/10)
$\lambda_K = 2 \times 10^{-9}$ Å

# 6	[10 - 23]	PE = 5	ΔE = 0.05	τ = 0.2	VB
# 7	[10 - 33]	"	"	"	V_{pk} = -10 V Cutoff

Ex. T → Reapro
Settings Other → 2.2 Low Magn ✉ = 02/01/2010

# 1	[10 - 33]	PE = 5	ΔE = 0.05	τ = 0.2	V_{pk} = -10 V Cutoff
# 3	[10 - 23]	"	"	"	VB

High Magnific

# 4	[10 - 33]	PE = 5	ΔE = 0.05	τ = 0.2	V_{pk} = -10 V Cutoff

02/11/2021

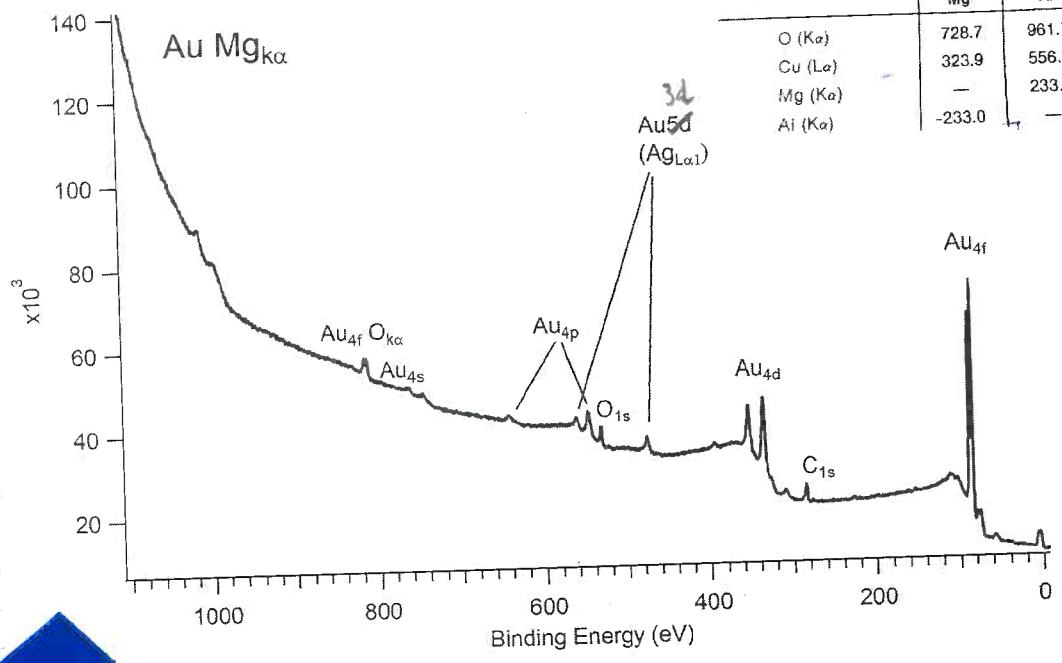
Sample Au

XPS Mg Kα 15 kV, 18 mA $p = 3 \times 10^{-9}$ mbar

$I_{Fil} = 4.86$ A, V_{Fil} 4.77 V } 23.2 W

02/01/2010 (00:23)

# 1	[1104 - 1066]	PD = 50 eV	ΔD = -0.5	ζ = 0.3	W, Le
~~# 3~~	~~[94 - 74]~~	~~PD = 25 eV~~	~~ΔD = -0.01~~	~~ζ = 0.3~~	~~Au4f~~
# 5	[98 - 74]	PD = 25 eV	ΔD = -0.01	ζ = 0.3	Au4p
# 7	[295 - 275]	"	"	"	C1s
# 9	[540 - 520]	"	"	"	O1s



Contaminating Radiation	Anode Material Mg	Al
O (Kα)	728.7	961.7
Cu (Lα)	323.9	556.9
Mg (Kα)	—	233.0
Al (Kα)	-233.0	—

$\Delta_{g\,C1}$ = 2986.31 eV 2978 3150 = $\Delta_{g\,4p}$

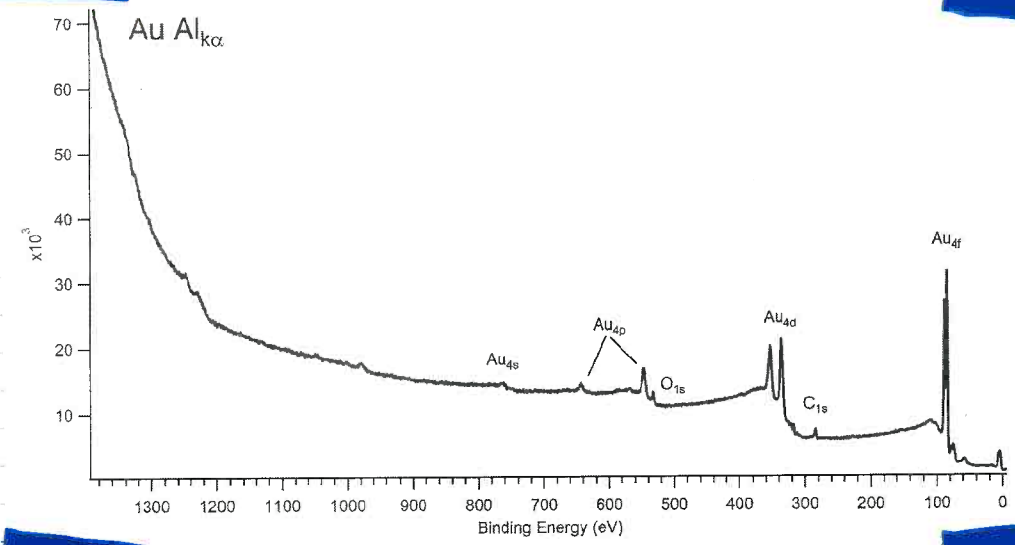
$\Delta_{Auf\,4s}$ = 2206 2291 2763

~~2291 + 472 = 2763 + 1253 = 3072~~

(132)

XPS Al Kα 15 kV 18 mA $\begin{cases} I_{Fil} = 4.32\ A \\ V_{Fil} = 4.36\ V \end{cases}$

10 [1387 - -6] PE = 50 eV ΔE = -0.5 eV 2:01 Wide



UPS φ = 21.2 eV $I_k = 3 \times 10^{-3}$ A

11 [10 - 23] PE = 5 ΔE = 0.05 High. VB

12 [10 - 23] " " Low VB

13 [10 - 33] " " High Vpl: -10V Cutoff

14 [10 - 33] " " Low Vpl: -10V Cutoff

15 [10 - 33] " " High " " "

(no spikes)

03/11/2021

Sample: MLi Test Sample 1 (Cat. Au)

XPS Mg Kα 8kV 18mA

$I_{FIL} = 4.84$ A
$V_{FIL} = 4.75$ V

📅 = 07/01/2010 (23:15)

# 1	[404 - 6]	P_E = 50 eV	ΔE = -0.5 eV	τ = 0.3 s	Wide
# 2	[460 - 435]	P_E = 25 eV	ΔE = -0.1 eV	"	In 3d
# 4	[503 - 475]	"	"	"	Sn 3d
# 5	[295 - 275]	"	"	"	C_{1s}
# 6	[540 - 520]	"	"	"	O_{1s}

UPS $p = 4 \times 10^{-8}$ mbar $I_E = 3 \times 10^{-9}$ A

# 7	[10 - 23]	P_E = 5	ΔE = 0.05	High		VB
# 8	[10 - 23]	"	"	Low		VB
# 9	[10 - 33]	"	"	High	V_{pol} = -10 V	Cut-off
# 10	[10 - 33]	"	"	Low	V_{pol} = -10 V	Cut-off

04/11/2021

Sample TiO Rod

XPS Mgka 15kV, 18mA

☑ : 08/01/2010

#1 [1104 - -6] Pδ=50 Δδ=0.5 z=0.3 W.Le

Sputtering 2kV 25mA p= 1.2×10^{-5} mbar Ar+
I_{ek} = 1,5 μA θ= 25°

XPS Mgka 15kV 18mA $\begin{cases} I_{FIL} = 4.87\ A \\ V_{FIL} = 4.84 \end{cases}$

#2 [1104 - -6] Pδ=50 Δδ=0,5 z=0.3 W, Le
#3 [472-450] Pδ=25 Δδ=-0.1 " Ti 2p
#4 [300 - 285] " " " C_{1s}
#5 [540 - 520] " " " O_{1s}
#6 [360 - 340] " " " Ca 2p
#7 [112 - 90] " " " Si 2p
#8 [410 - 390] " " " N_{1s} ?

#9 [10-33] Pδ=5 Δδ=-0.05 z=0.2 V_{pl}=-10V VB+ cutoff
High
#10 [10-33] " " " " V_{pl}=-10V VB+ cutoff
Low

Mgka 15kV 5mA
#12 [10-33] Pδ=5 Δδ=-0.05 z=0.2 V_{pl}=-10 cutoff VB
Low

3/11/2021

Sample Lunco Simulant LHS-1 powder

□ : 13/01/2010 Tg Ka 8 mA 15 kV $\begin{cases} I_{FIL} = 4.82 \text{ A} \\ V_{FIL} = 4.69 \text{ V} \end{cases}$

# 1	[404 - -6]	PD = 50	ΔD = -0.5	τ = 0.3	W 4f
# 4	[482 - 457]	PD = 25	ΔD = -0.1	"	Ti 2p
# 5	[370 - 345]	"	"	"	Ca 2p
# 6	[120 - 95]	"	"	"	Si 2p
# 8	[305 - 275]	"	"	"	C_{1s}
# 10	[550 - 525]	"	"	"	O_{1s}
# 11	[95 - 70]	"	"	"	Al_{2p}

Cu Toff eV B

Tg Ka 15 kV 8 mA

# 12	[10 - 33]	PD = 5	ΔD = 0.05	τ = 0.2	High Vpl = -10 V

Tg Ka 15 kV 5 mA

# 14	[10 - 33]	PD = 5	ΔD = 0.05	"	High Vpl = -10 V
# 15	[10 - 33]	"	"	"	Low Vpl = -10 V

12/11/2021

Sample HL1 Test sample 2 (no ito) (Caso dorato)

XPS Mgka 15kV 8mA ☐ = 16/01/2010

1 [Mol. -6] Δδ = -0.5 Pδ = 50 z = 0.3 Wide
(c'è shift. C, O, N, Si (poco poco), Ca (poco))

2 [420 - 395] Δδ = -0.4 Pδ = 25 z = 0.3 N_{1s}
4 [302 - 278] " " " C_{1s}
7 [550 - 530] " " " O_{1s}
10 [365 - 345] " " " $Ca\,2p$
12 [107 - 102] " " " $Si\,2p$

Mgka 15kV, 5mA $\begin{cases} I_{FIL} = 4.30\ A \\ V_{FIL} = 4.36\ V \end{cases}$

13 [550 - 530] Pδ = 25 Δδ = 0.1 z = 0.3 O_{1s} (per confronto)

14 [10 - 33] Pδ = 5 Δδ = 0.05 z = 0.2 High V_{pol} = -10V Cu
15 [10 - 33] " " " Low " Cu
16 [302 - 278] Pδ = 25 Δδ = -0.1 z = 0.3 C_{1s}