

Korrozív olajok Rézfelszínek röntgen- fotoelektron spektroszkópiai (XPS) vizsgálata

Dr. Szebeni Mária
Tisza Pharma VET Kft.
tpv@tpv.t-online.hu



CONTROL



(1175) DBDS 15



(1173) DBDS 15





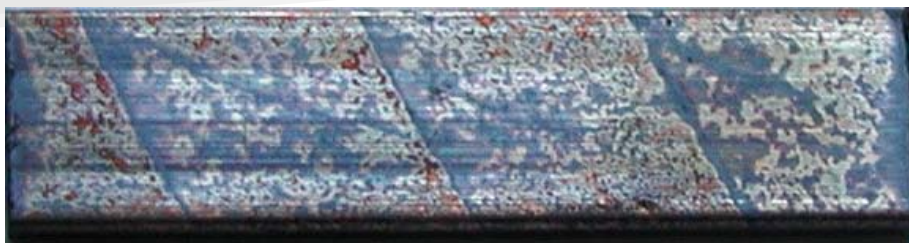
CONT



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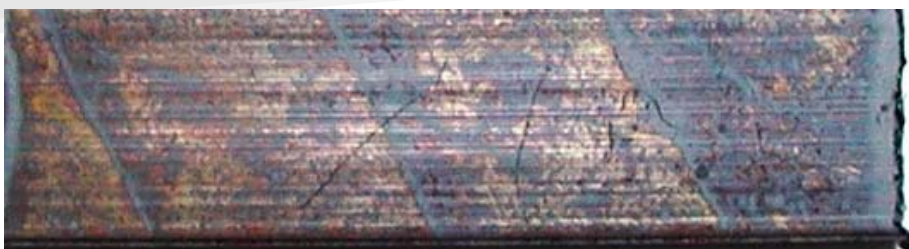
CON



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CONT



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Selected samples for surface analysis by XPS



(1195) Control



(1175) DBDS 15



(1176) DBDS 115

XPS

Röntgen gerjesztéses fotoelektron spektroszkópia

1905

Einstein

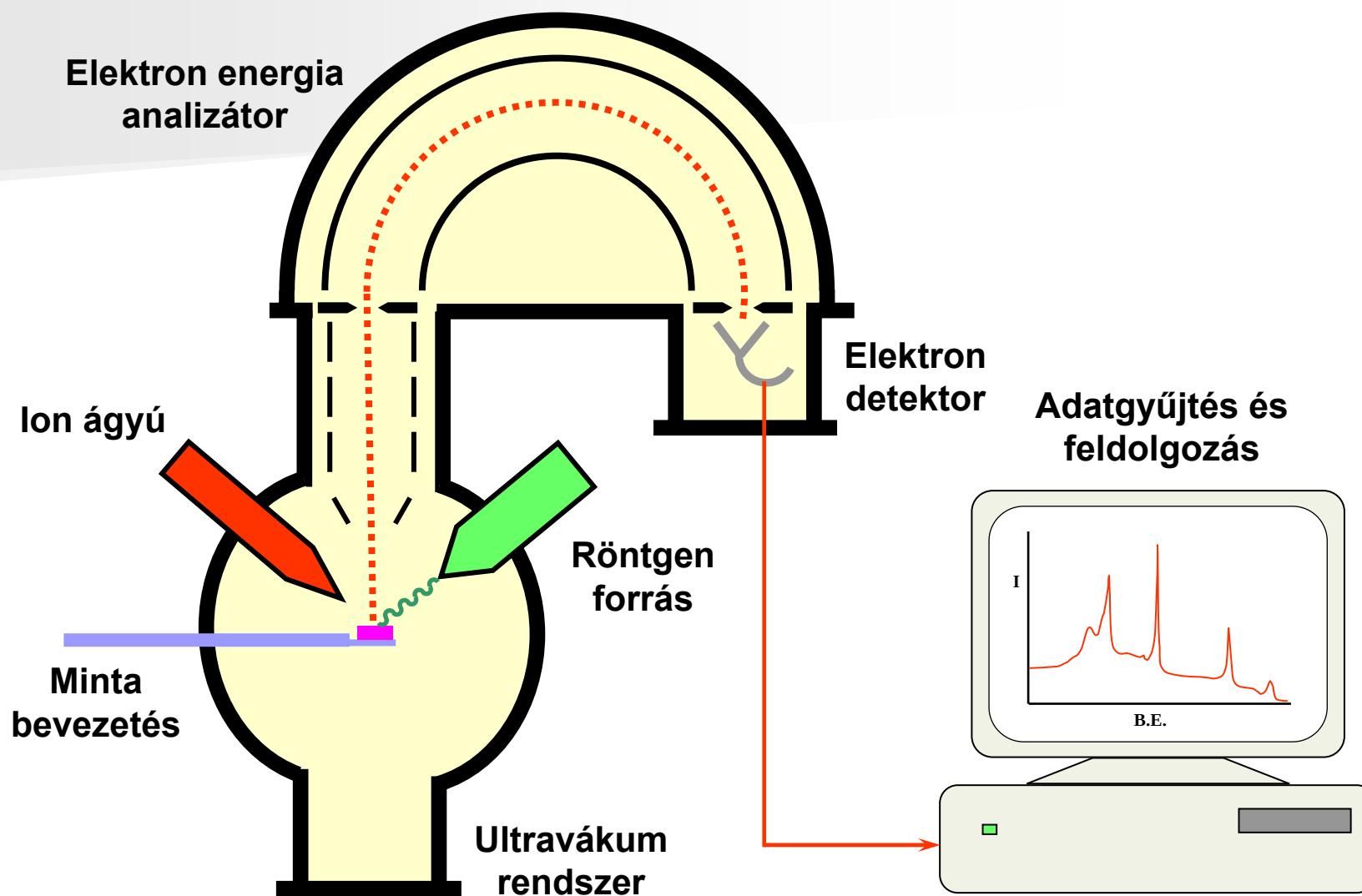
energetika

1981

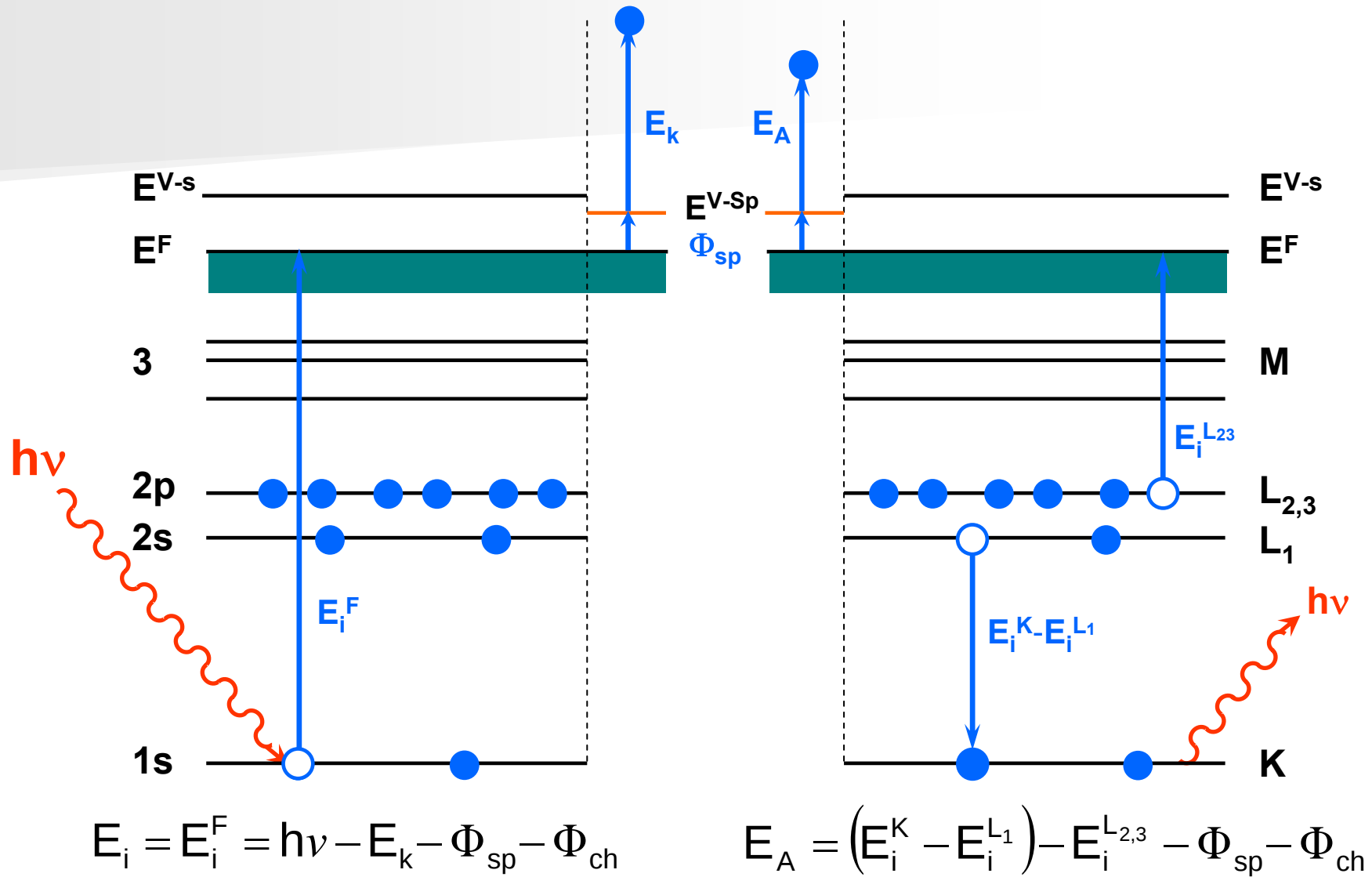
Kai Siegbahn

Nobel díj

Scheme of X-ray Photoelectron Spectroscopy



Energetics of photo-ionisation & Auger relaxation



A vizsgálati eredmények értékelése

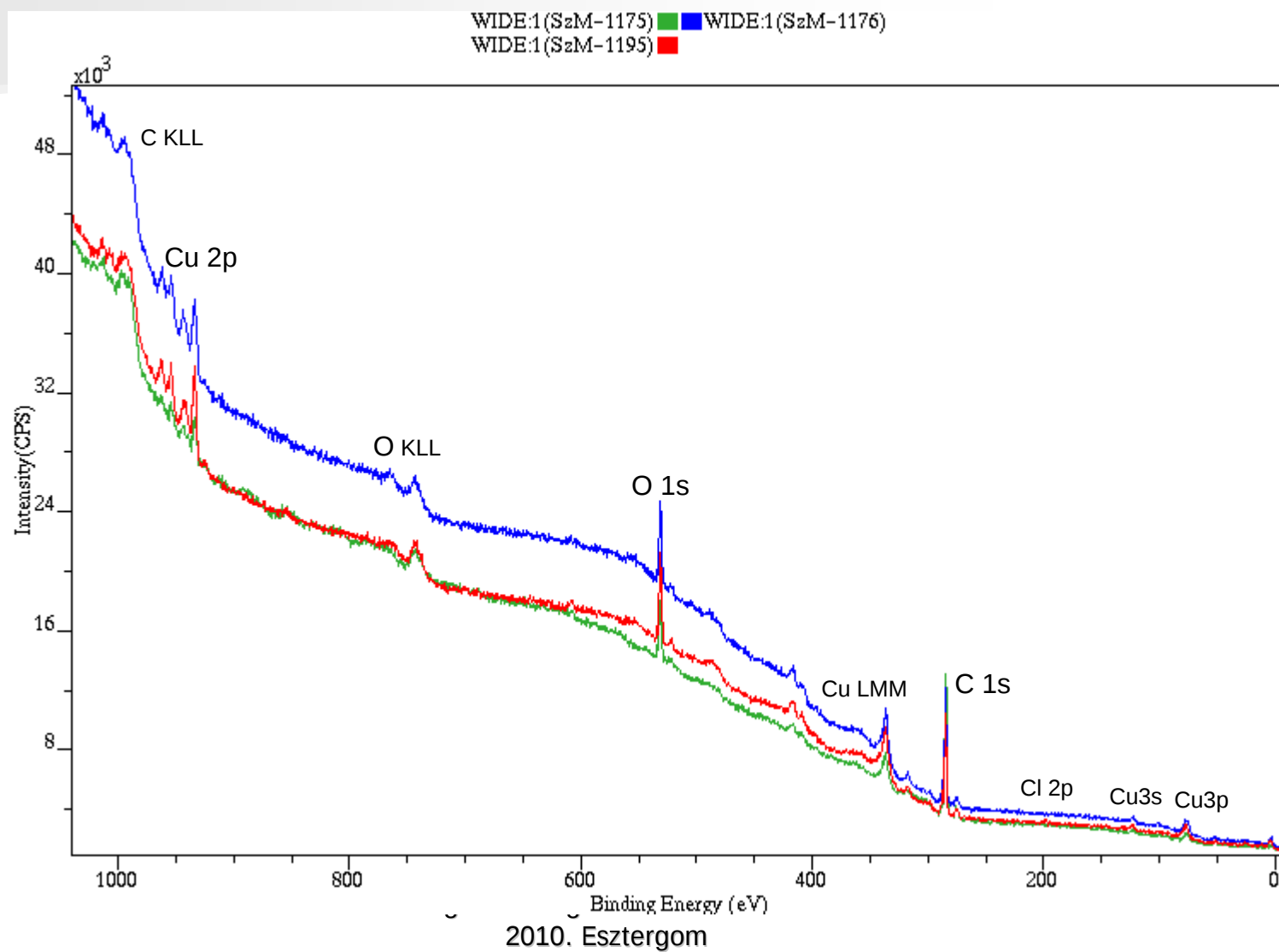
Kvalitatív

a spektrum vonal

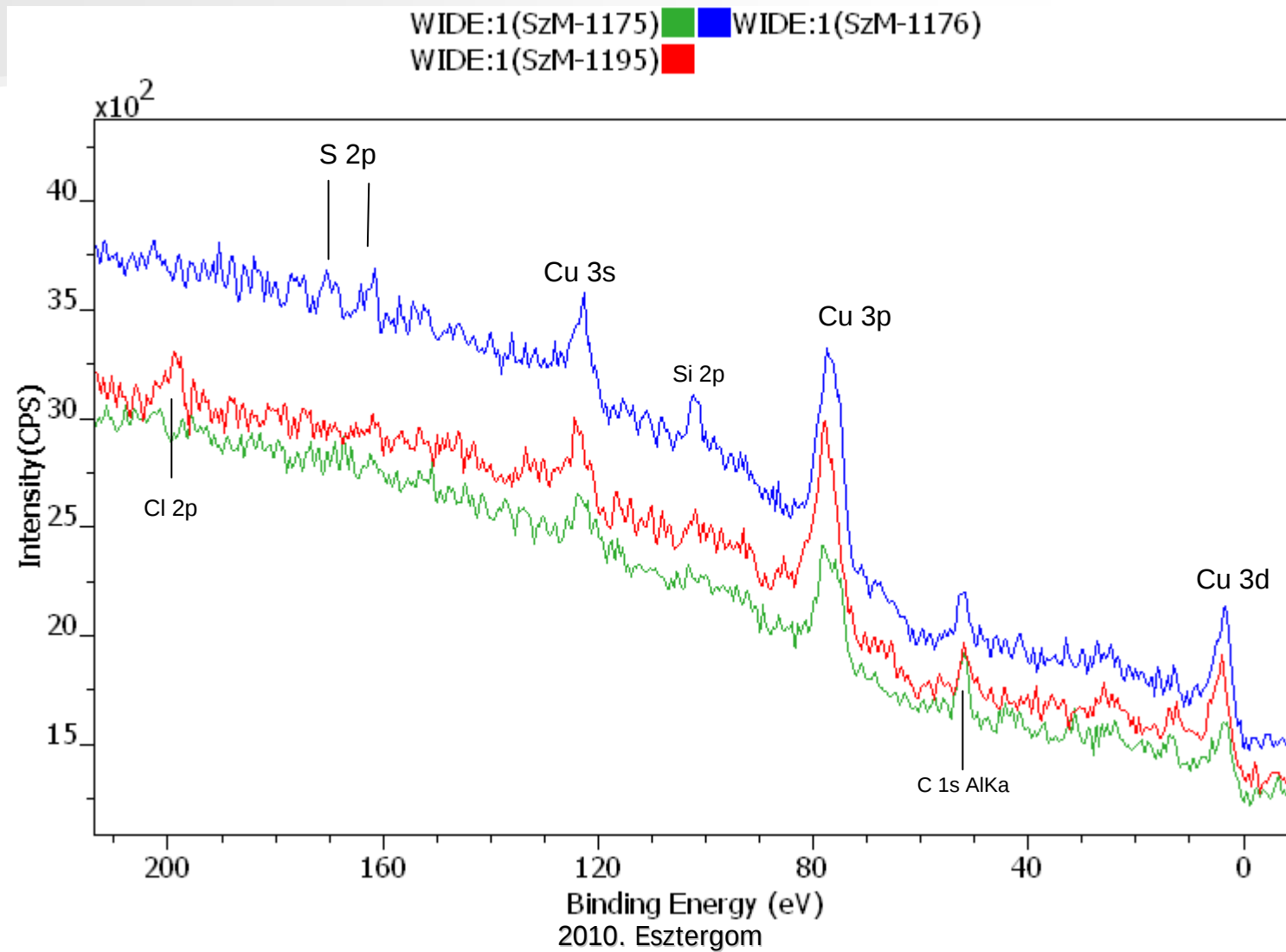
Kvantitatív

az emittált elektronok száma, vagyis a spektrumvonalak intenzitása arányos az emittált atomféleség mintában levő mennyiségével

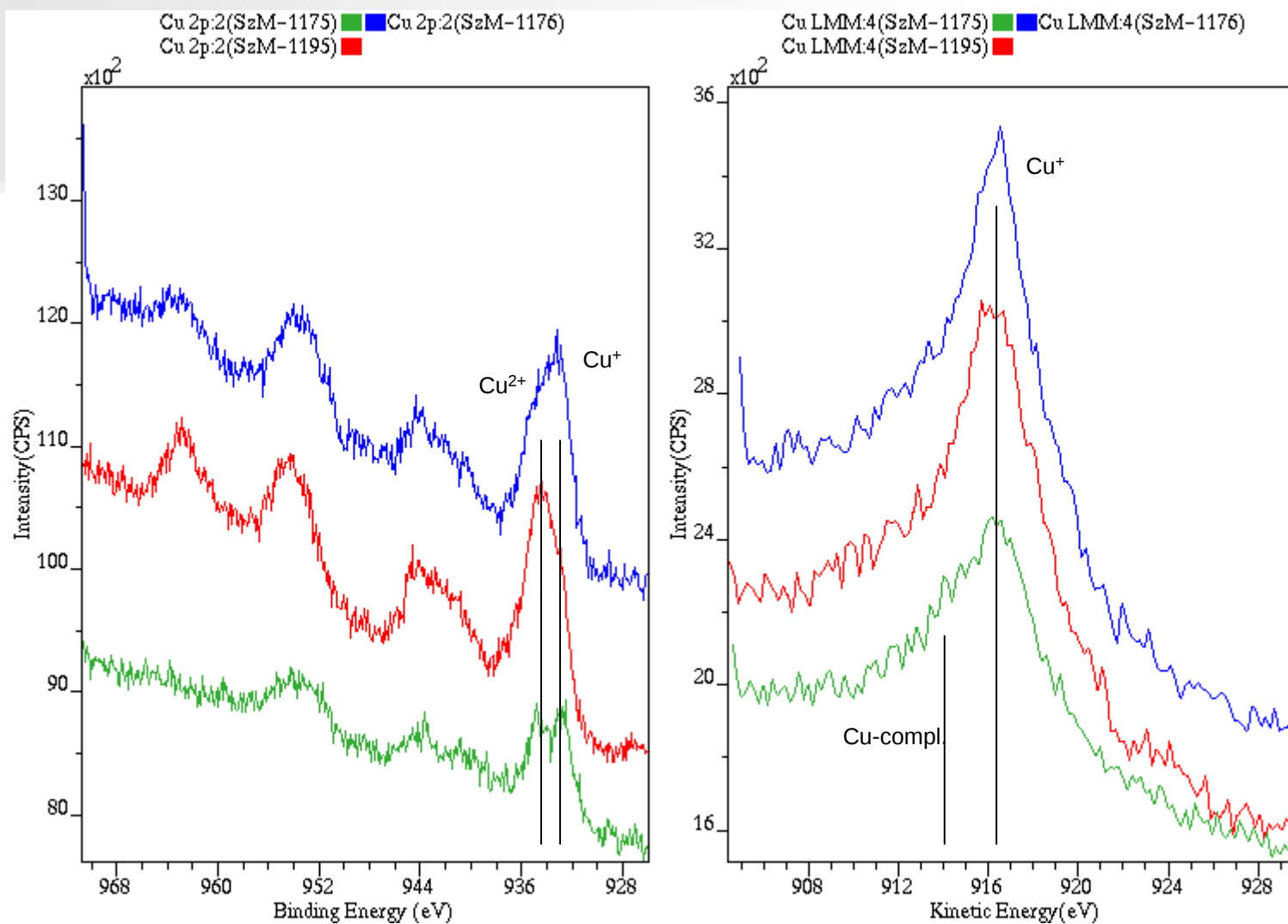
Survey XPS spectra of the treated and reference samples

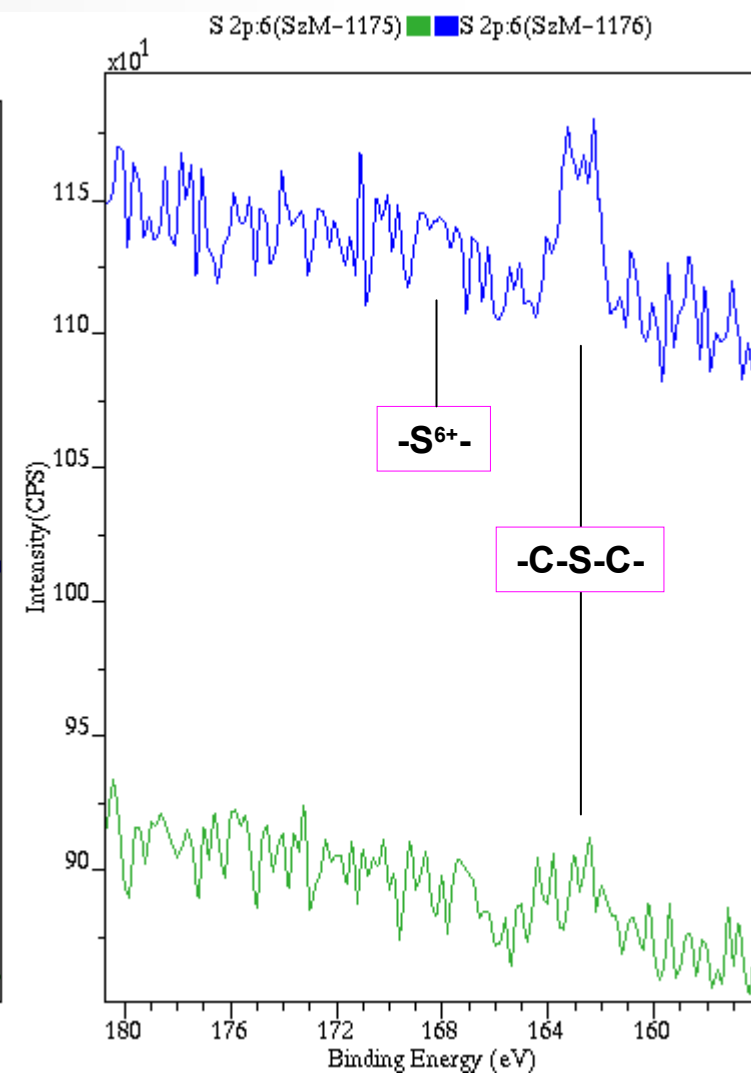
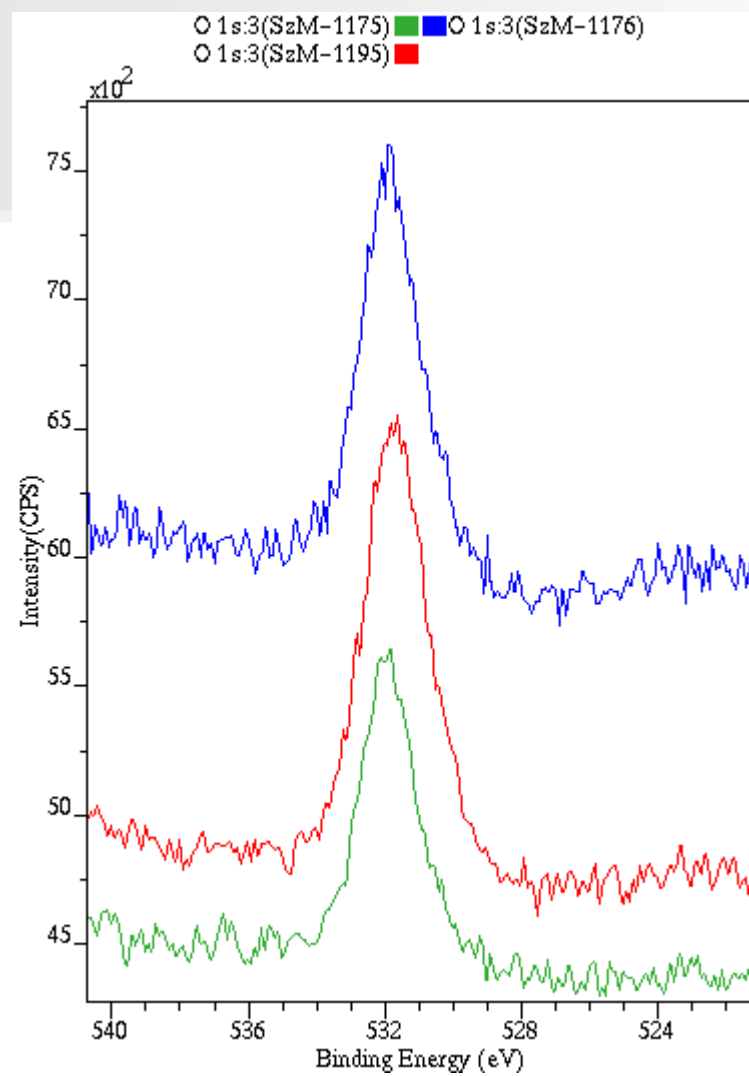


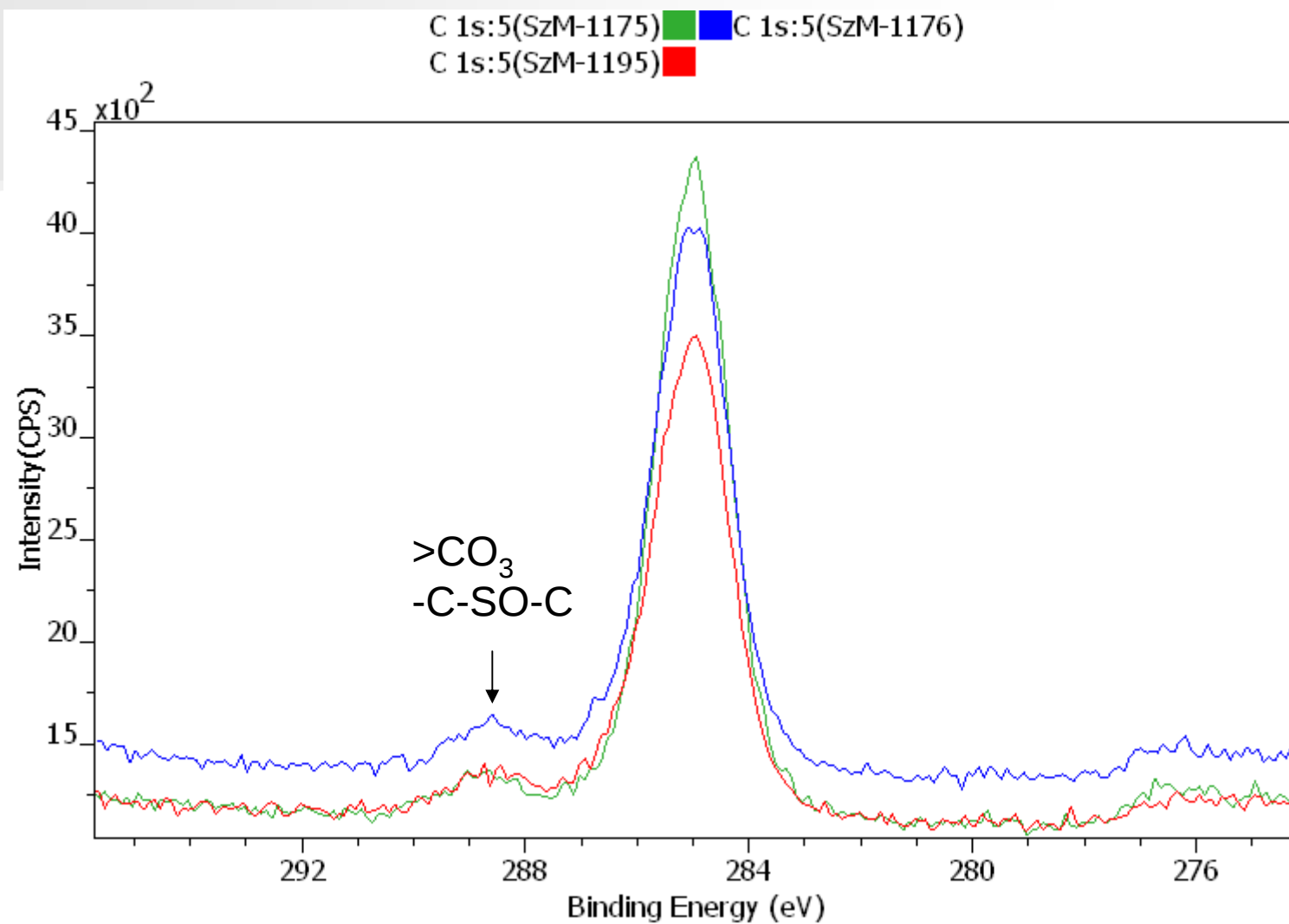
Part of survey XPS spectra of the treated and reference samples



Cu 2p and Cu LMM spectra of the treated and reference samples







Atomok a réz felszínén

XPS módszer

**/export/home/kratos/data/Y09/SzM-1195.dset
2009**

Thu Jun 11 18:10:04

Peak control	Position	FWHM	Raw Area	RSF	Atomic	Atomic	Mass
	BE (eV)	(eV)	(CPS)	Mass	Conc %	Conc %	
Cu 2p	934.450	3.420	18181.5	4.871	63.549	15.11	45.84
O 1s	531.650	2.072	4148.2	0.736	15.999	22.82	17.42
C 1s	284.950	1.613	4792.2	0.318	12.011	61.02	34.98
Cl 2p	199.450	1.814	248.3	0.964	35.460	1.04	1.76

Quantification Report

/export/home/kratos/data/Y09/SzM-1175.dset
18:00:44 2009

Thu Jun 11

Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSF Mass	Atomic Conc %	Atomic Conc %	Mass
Cu 2p	932.550	1.614	7023.1	4.871	63.549	5.99	24.01
O 1s	531.850	1.759	2820.5	0.736	15.999	15.93	16.07
DBDS							
C 1s	284.950	1.506	5925.9	0.318	12.011	77.46	58.66
15 ppm							
S 2p	162.450	0.959	108.0	0.723	32.065	0.62	1.26

/export/home/kratos/data/Y09/SzM-1176.dset
18:08:43 2009

Thu Jun 11

/export/home/kratos/data/Y09/SzM-1176.dset

Thu Jun 11 18:08:43 2009

Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSF Mass	Atomic Conc %	Atomic Conc %	Mass
Cu 2p 115 ppm	933.300	3.502	14026.7	4.871	63.549	11.60	38.60 DBDS
O 1s	531.900	1.893	3851.3	0.736	15.999	21.07	17.66
C 1s	285.100	1.597	5215.2	0.318	12.011	66.04	41.55
S 2p	162.300	1.603	233.0	0.723	32.065	1.30	2.18
Cu LMM	KE 916.6						

Ar+ ion etching

Peak	Position BE (eV)	FWHM (eV)	Raw Area (CPS)	RSF Mass	Atomic Conc %	Atomic Conc %	Mass
Cu 2p	933.200	1.601	102733.8	4.871	63.549	65.52	86.76
O 1s	533.300	0.159	425.5	0.736	15.999	1.80	0.60
C 1s	285.000	1.792	2253.5	0.318	12.011	22.01	5.51
S 2p	165.800	2.093	2484.4	0.723	32.065	10.67	7.13
Cu LMM	KE 916.3						

Cu in the dark deposit is in some kind of monovalent complex state with -C-S-C- type moieties

**Köszönöm
szíves
figyelmüket!**

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