minerals

MDPI

Supplementary Materials

X-ray Photoelectron Spectroscopy (XPS) Study of the Products Formed on Sulfide Minerals Upon the Interaction with Aqueous Platinum (IV) Chloride Complexes

Alexander Romanchenko * Maxim Likhatski and Yuri Mikhlin

Institute of Chemistry and Chemical Technology, Siberian Branch of the Russian Academy of Sciences, Krasnoyarsk 660036, Russia; lixmax@icct.ru (M.L.); yumikh@icct.ru (Y.M.)

* Correspondence: romaas82@mail.ru; Tel.: +7-391-205-1928

Received: 8 November 2018; Accepted: 6 December 2018; Published: 8 December 2018

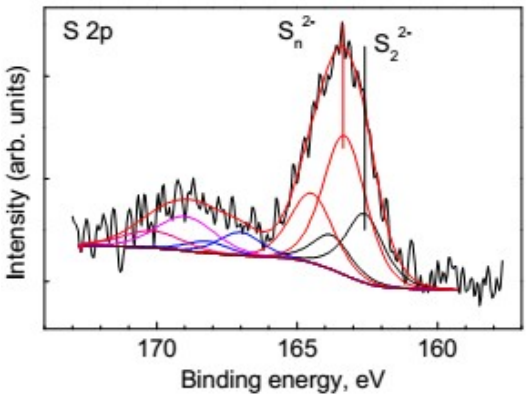

Figure S1. XPS the S 2p spectra from a droplet of sol formed in the reaction H_2PtCl_6 + H_2S dried on pyrolytic graphite.

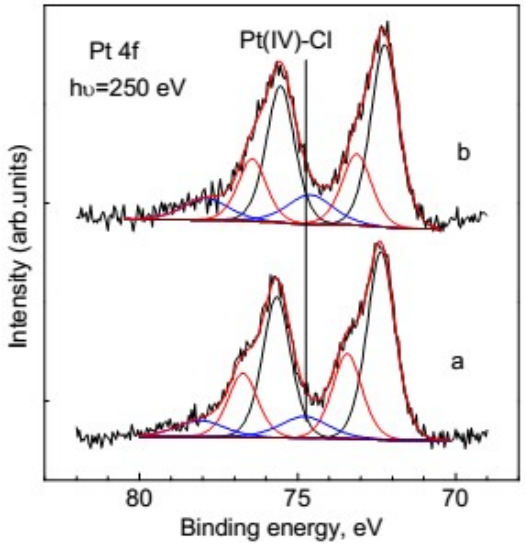

Figure S2. SR photoelectron Pt 4f spectra of the surfaces of pyrrhotite (**a**) and pyrite (**b**) after the interaction with solution of 1 mmol/L H_2PtCl_6 + 0.03 mol/L HCl for 12 h.

Table S1. Atomic concentrations of the elements on the surfaces of different sulfide minerals after 2 h interaction with 1 mmol/L M H_2PtCl_6.

Mineral	Pt	S	Cl	Fe	O	Cu	Others
	at. %	at. %	at. %	at. %	at. %	at. %	at. %
Galena	2.1	37.4	5.0	-	24.8	-	30.7 (Pb)
Valleriite	2.0	8.2	0.9	1.5	63.7	1.3	22.4 (Mg,Si,Al)
Chalcopyrite	1.6	45.5	2.7	5.6	38.9	5.7	-
Pyrrhotite	0.9	29.0	3.7	3.2	63.2	0	-
Pyrite	0.7	30.8	1.5	7.4	59.6	0	-