

Supporting information

Pyrochlore Ta-doped antimony as novel adsorbents for efficient strontium removal

Wanjun Mu, Rui Zhang , Xingliang Li, Xiang Xie, Qianhong Yu, Kai Lv, Hongyuan
Wei*, Yuan Jian

*Institute of Nuclear Physics and Chemistry, China Academy of Engineering Physics,
64# Mianshan Road, Mianyang, 621900, Sichuan Province, P. R. China*

*Corresponding author: Tel: +86 816 2494854.

E-mail address: muwj2014@163.com

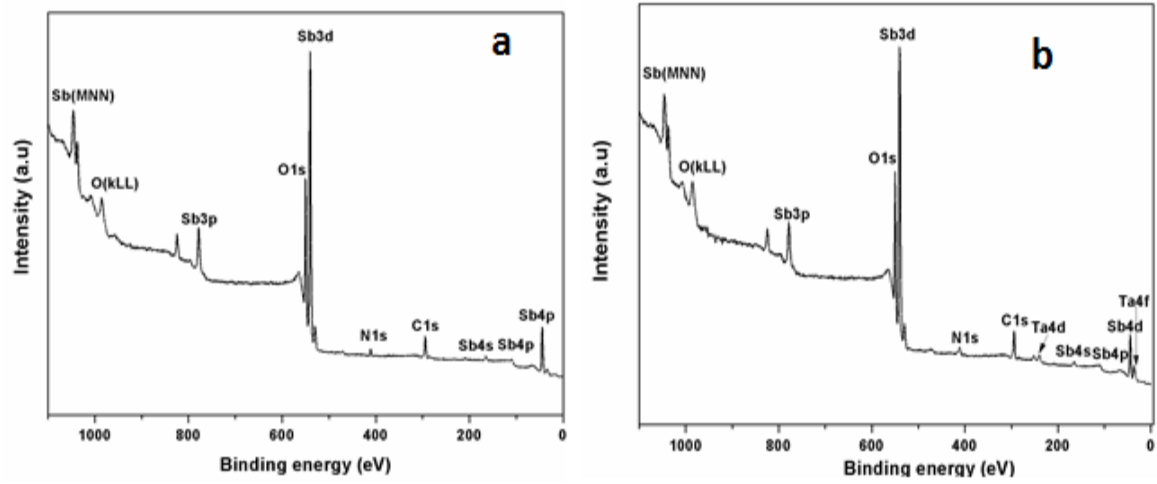


Fig.1 The XPS spectra of (a) TaSb-0 sample and (b) TaSb-0.12 sample

Table 1 kinetic parameters for Sr²⁺ sorption onto TaSb-0 and TaSb-0.12 samples

Model	Parameters	TaSb-0	TaSb-0.12
Experiment	q_e (mg g ⁻¹)	12	26
Pseudo first-order kinetic model	k_1 (min ⁻¹)	0.11	0.071
	q_e^{cal} (mg g ⁻¹)	11.95	26.97
	R ²	0.9756	0.9502
Pseudo second-order kinetic model	k_2 (g mg ⁻¹ min ⁻¹)	0.32	5.07×10 ⁻³
	q_e^{cal} (mg g ⁻¹)	12.02	26.01
	R ²	0.9992	0.9999