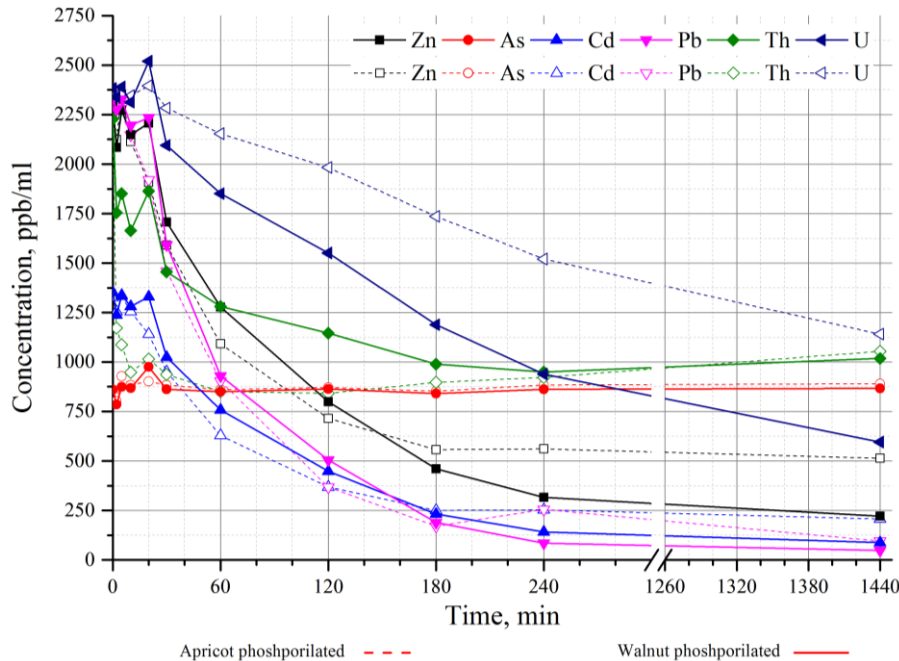


Kinetic and capacitive characteristics of natural sorption materials

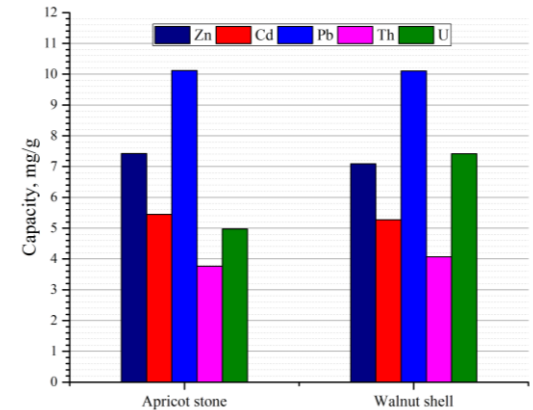
Alexander Valyaev, M.S. Polyakov IGTM NAS of Ukraine / Dnipro University of Technology

The problem of groundwater pollution by man-made sources is actual today.

To assess the possibility of purifying natural waters from heavy and radioactive metals, tests were carried out on model solutions containing uranium, thorium, cadmium, arsenic, lead and zinc.



The kinetic and capacitive characteristics of apricot stone and walnut shell were analyzed using MS ICP.



Capacity of phosphorilated Apricot and Walnut shells

mg/g	Zn	Cd	Pb	Th	U
AP	7,4	5,4	10,1	3,8	5,0
WP	7,1	5,3	10,1	4,1	7,4

These materials have been successfully used for the purification of radioactively contaminated waters on the territory of the former PCP, Kamenskoye, Ukraine.

Further study and application of these materials is a future-oriented.

“EcoMining: Development of Integrated PhD Program
for Sustainable Mining & Environmental Activities”

