Contribution ID: **974** Type: **Poster**

Polonium removal from waters by silver-coated Luffa Cylindrica biochar fibers

Thursday, 19 May 2022 17:36 (7 minutes)

Abstract

The sorption of ultra-trace levels of polonium by Luffa Cylindrica biochar fibers has been investigated in deionized water and seawater samples prior and after surface modification (Ag-coating) of the adsorbent. The effect of pH on the sorption efficiency (Kd values) indicated that pH, which governs the solution chemistry of Po(IV), affects to a large degree the adsorption efficiency and that Ag-coating of the surface results in significantly higher Kd values. The modified adsorbent presents enhanced removal efficiency for Po-209 even from seawater samples indicating the usefulness of the modified biochar fibers for the treatment of polonium contaminated waters.

Keywords:
Polonium adsorption; Ag-coated fibers; water treatment; seawater; Kd values

Primary authors: Prof. PASHALIDIS, Ioannis (Department of Chemistry, University of Cyprus); Mrs PHILIPPOU, Maria (Department of Chemistry, University of Cyprus)

Presenter: Prof. PASHALIDIS, Ioannis (Department of Chemistry, University of Cyprus)

Session Classification: Separation & Speciation

Track Classification: Separation Methods, Speciation