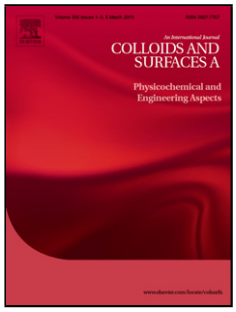

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Assesment of Phosphate Functionalised Silica Gel (PFSG) for Separation and Recovery of Uranium from Simulated Silicide Fuel Scraps Dissolver Solution (SSFSDS)

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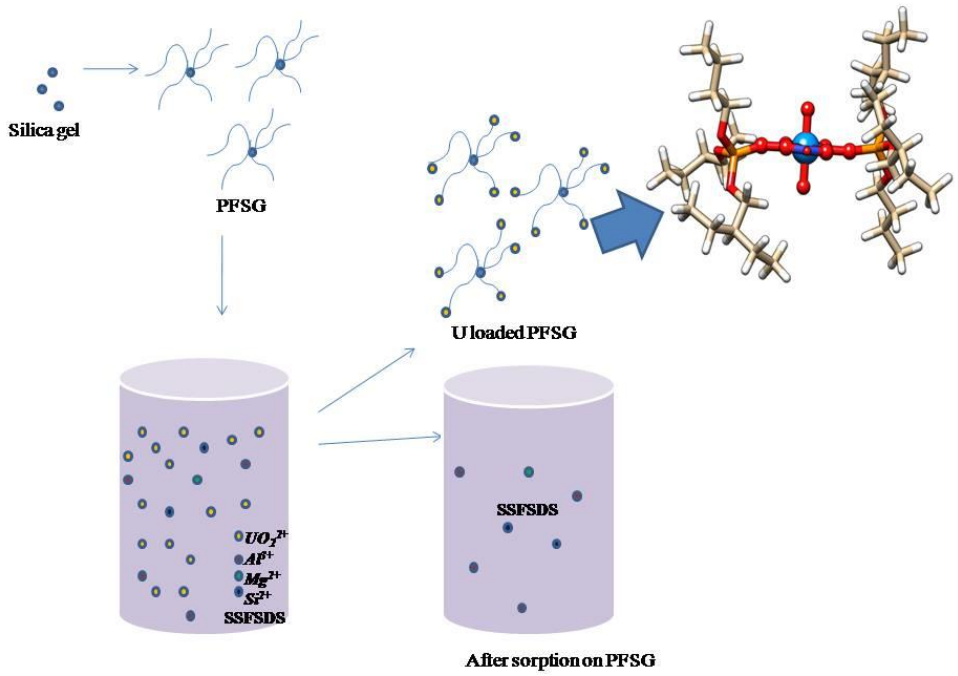
Graphical abstract



Abstract

Phosphate Functionalized Silica Gel (PFSG) has been synthesized by reaction of DEHPA with modified silica gel. PFSG has been characterized by Scanning Electron Microscopy (SEM), Energy-Dispersive X-Ray Spectroscopy (EDS), Thermo-Gravimetric Analysis (TGA), Fourier Transform Infrared Spectroscopy (FT-IR) and X-Ray Photoelectron Spectroscopy (XPS) techniques. With PFSG the following studies for uranium sorption have been carried out: sorption