

Grafted network hydrogels based on clay and 2 kind of anionic polymer for removal radioactive Strontium-90

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In this paper, removing method of radioactive metal 'Sr-90' which leaking from radioactive plant accident was indicated. Sr-90 was beta-emitter and had half time 28.8years. This research was shown that Sr-90 adsorption of Sr-90 addicted advanced functional hydrogels that consisted of aminoclay and two kind of anionic polymer. This synthesized material was different from existing bead type adsorbent which was calcium alginate. Existing alginate adsorbent for removing Sr-90 had some problem such as a minority of functional group and low adsorption capacity. This material solved before Calcium alginate problem consisted of cationic polymer core replaced with metal ion caused to having more functional group and added to humic acid having more functional group compared with alginate. Distinctive grafted-network was caused to these 3 material and process of synthesis hydrogel bead.