

Elimination dse ions nitrates par une résine échangeuse d'anions

Sabrina LAADJAMA

Soutenue en: 2007

Abstract : Most of techniques used to date in the elimination of nitrates from waters are efficient but expensive. Ion exchange process is however a simple and economical process. In this work, the ion exchange technique making use of the anionic resin Amberlite IRA 120 have been determined. These include the exchange capacity, the swelling facto and humidity, the determination of ions present onto the resin (total ions, fixed and sorbed). The influence of some parameters (agitation speed, concentration and temperature) on the exchange kinetics and affinity towards sulfate and nitrate couple have been also studied. The results obtained show the electrolyte sorption decrease when the exterior solution reaches 1N. The influence of these three parameters has a favorable effect on the exchange kinetics of the resin. Moreover the resin has more affinity for nitrate than sulfate.

Keywords : Resin, Nitrate, Ion exchange, Nitrate removal.