

Separation of platinum and rhodium from hydrochloric acid solution with anion resins

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Adsorption experiments were carried out to separate Pt and Rh from hydrochloric acid solution. Loading of Pt and Rh onto Diaion and Dowex1 resins was investigated in the HCl concentration range of 0.1 to 5 M. The resins employed in this study have selectivity for Pt over Rh. The concentration of HCl had a pronounced effect on the loading of the two metals and Pt was selectively separated from Rh at low concentration of HCl. Batch experiments indicated that Dowex1 resin was more effective in separating Pt and Rh in our studied range. Continuous experiment with Dowex1 resin verified that separation of Pt from Rh was possible. The loaded Dowex1 resin was successfully regenerated by elution with thiourea.