

### Optimization of rare metal desorption in Flow Through Continues Deionization system

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The main objective of the study was to desorption of rare metal using flow through continues deionization system by chemical free. In this study, bi-polar membranes were used for chemical free system. Only uses electrical power. And flow through continues deionization cell was constructed in which the bead flow through the electrodes. The influence of several operating parameters on the overall process performance was investigated. The experimental result for desorption rare metal as function of cell voltage, flow rate and concentration of electrolyte. For instance, it came out that at low current density values such membranes are able to operate a perfect separation of opposite charges, resulting in a good process performance. The amount of desorption rare metal were ranging from 80.2 % to 100 %.