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(54) Title: SEPARATION OF ISOTOPES BY IONISATION FOR PROCESSING OF NUCLEAR FUEL MATERIALS

(57) Abstract

Improved processing apparatus and methods are provided which involve the selective ionisation of a feed material and the separation of ionised and non-ionised species. Introduction of a chemical material to cause selective transition to a non-ionised and/or solid or liquid state of part of the feed is provided. The process offers high through puts by virtue of the ionised and non-ionised species being in equilibrium with one another.

