Title (en)
PROCESS FOR RECOVERING URANIUM (VI) FROM PHOSPHORIC-ACID SOLUTIONS

Publication
EP 0053054 B1 19850123 (FR)

Application
EP 81401686 A 19811023

Priority
FR 8024253 A 19801114

Abstract (en)
[origin: ES8206387A1] Process for the recovery of uranium (VI) present in a phosphoric acid solution by contacting the latter with an organic solvent able to extract uranium, the organic solvent comprising a system of extractants constituted by a neutral phosphine oxide and an acid organophosphorus compound. The process comprises a re-extraction stage for the uranium extracted in the organic solvent, said re-extraction stage being performed in a re-extraction apparatus comprising at least two stages in which the uranium-containing organic solvent is circulated in the said stages by introducing it into the first stage, an aqueous ammonium carbonate solution is circulated in countercurrent with respect to the organic solvent in the said stages by introducing it into the final stage in a quantity such that it represents 50 to 80% of the stoichiometric quantity necessary for neutralizing the acid organophosphorus compound and for transforming the uranium present in the organic solvent into uranyl ammonium tricarbonate, ammonia being added in the form of a gas or an aqueous solution to the ammonium carbonate solution circulating in the first stage in order to keep the pH of the final stage as a value between 8 and 9.5 and preferably between 8 and 8.5.

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C22B 60/02

IPC 8 full level
B01D 59/32 (2006.01); **C22B 60/02** (2006.01)

CPC (source: EP US)
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Cited by
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EP 0053054 A1 19820602; **EP 0053054 B1 19850123**; AU 542919 B2 19850321; AU 7684781 A 19820520; BR 8107393 A 19820810; CA 1188106 A 19850604; DE 3168526 D1 19850307; EG 15457 A 19881031; ES 507131 A0 19820816; ES 8206387 A1 19820816; FR 2494258 A1 19820521; FR 2494258 B1 19841102; JO 1166 B1 19831130; JP S57110324 A 19820709; MA 19328 A1 19820701; OA 06944 A 19830731; US 4432946 A 19840221; YU 262781 A 19831231; YU 42740 B 19881231; ZA 817498 B 19821027

DOCDB simple family (application)
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