

Title (en)

Decontaminating agent and process for dissolving radioactively contaminated surfaces of metallic components.

Title (de)

Dekontaminationsmittel und Verfahren zur Lösung von radioaktiv kontaminierten Oberflächen von Komponenten aus Metall.

Title (fr)

Moyen de décontamination et procédé de dissolution des surfaces radioactivement contaminées de composants métalliques.

Publication

EP 0483053 B1 19950301 (DE)

Application

EP 91810731 A 19910916

Priority

CH 342990 A 19901026

Abstract (en)

[origin: EP0483053A1] A reagent consisting of an HBF₄ acid with at least one oxidising agent, preferably hydrogen peroxide, H₂O₂, added has been found for efficiently decontaminating radioactively contaminated metal components. Ideally, this mixture consisted of a 5%-strength HBF₄ acid with 0.5 % by volume of H₂O₂ added. Radioactively decontaminated lead plates, for example, were removed from this reagent, while the contaminated solution was used as electrolyte without further additions. The contaminated lead or lead oxide deposits at the anode or cathode and can be disposed of as nuclear waste, while the solution can be returned to the process. The process can be performed in exactly the same way using the same reagent if the metal is not lead but copper, nickel, steel, silver or mercury or their alloys. <IMAGE>

IPC 1-7

G21F 9/00; **C23G 1/10**

IPC 8 full level

G21F 9/28 (2006.01); **C23G 1/10** (2006.01); **G21F 9/00** (2006.01); **G21F 9/30** (2006.01)

CPC (source: EP US)

C23G 1/10 (2013.01 - EP US); **G21F 9/004** (2013.01 - EP US)

Cited by

CN112176393A; US5805654A; US5901368A; US11342092B2; WO9614640A1; US6320675B1; US6721067B2

Designated contracting state (EPC)

BE CH DE ES FR GB LI SE

DOCDB simple family (publication)

EP 0483053 A1 19920429; **EP 0483053 B1 19950301**; BG 95366 A 19931224; CA 2054234 A1 19920427; CA 2054236 A1 19920427; CH 682023 A5 19930630; CS 325391 A3 19920617; DE 59104768 D1 19950406; ES 2071278 T3 19950616; FI 914870 A0 19911016; FI 914870 A 19920427; HU 212234 B 19960429; HU 913363 D0 19920128; HU T69460 A 19950928; JP H04285898 A 19921009; RU 2029400 C1 19950220; US 5340505 A 19940823

DOCDB simple family (application)

EP 91810731 A 19910916; BG 9536691 A 19911025; CA 2054234 A 19911025; CA 2054236 A 19911025; CH 342990 A 19901026; CS 325391 A 19911025; DE 59104768 T 19910916; ES 91810731 T 19910916; FI 914870 A 19911016; HU 336391 A 19911025; JP 29854491 A 19911017; SU 5001980 A 19911025; US 74602791 A 19910816