

Title (en)
Radioactive waste solidification method

Title (de)
Verfestigungsverfahren für radioaktive Abfälle

Title (fr)
Procédé de solidification de déchets radioactifs

Publication
EP 2919237 A1 20150916 (EN)

Application
EP 15158743 A 20150312

Priority
JP 2014052245 A 20140314

Abstract (en)
In a radioactive waste solidification method, radioactive waste (for example, zeolite to which Cs-137 was adsorbed) and glass raw materials (soda lime glass) are supplied into the solidifying vessel (3). The solidifying vessel (3) filled with the radioactive wastes and glass raw materials is disposed in an adiabatic vessel (7). A lid is attached to the adiabatic vessel (7) to seal it. The radioactive waste and glass raw materials in the adiabatic vessel (7) are heated by thermal energy generated due to radiation emitted from Cs-137. The glass raw materials are melted and osmose in clearances among the radioactive waste, producing a vitrified radioactive waste. Since the radioactive waste and glass raw materials are disposed in the adiabatic vessel (7), they are uniformly heated and a uniform vitrified radioactive waste is obtained. No melting facility is needed. The radioactive waste solidification method can produce a uniform vitrified radioactive waste through uniform heating without having to use a melting facility.

IPC 8 full level
G21F 9/30 (2006.01)

CPC (source: EP)
G21F 9/30 (2013.01); **G21F 9/305** (2013.01)

Citation (applicant)
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• JP 2011046996 A 20110310 - MITSUBISHI MATERIALS CORP
• JP S62124499 A 19870605 - TOSHIBA CORP
• JP S62165198 A 19870721 - KURUSHIMA GROUP KYODO GIJUTSU

Citation (search report)
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• [A] US 3365578 A 19680123 - GROVER JOHN ROGER, et al
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• [A] EP 0043397 A1 19820113 - ROPP RICHARD C

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Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2919237 A1 20150916; EP 2919237 B1 20160914; JP 2015175726 A 20151005; JP 6126031 B2 20170510

DOCDB simple family (application)
EP 15158743 A 20150312; JP 2014052245 A 20140314