

Title (en)  
ARRANGEMENTS FOR CONTAINING WASTE MATERIAL

Publication  
**EP 0044692 B1 19861008 (EN)**

Application  
**EP 81303221 A 19810714**

Priority  
AU PE453480 A 19800715

Abstract (en)  
[origin: EP0044692A2] Nuclear reactor waste is immobilised as a synthetic rock structure formed by sintering under high temperature and pressure in a metal canister (5) which is sealed after filling. A thin walled metal canister (5) is located in a cavity (9) in a refractory support element (8) which restrains deformation of the canister and the reactor waste mixed as a minor proportion with material for forming the synthetic rock is introduced into the canister preferably in the form of pourable granules. Compaction rams (2, 3) compress the material and it is heated to form the synthetic rock. The canister (5) is sealed with a lid. The canister (5) is preferably elongated and the heating is preferably by water cooled induction coils (10) arranged in a series of overlapping heating zones in which the sintering takes place in sequence. The apparatus for the method preferably has a tapered bore 9 in the refractory support element (8) into which granular refractory material is packed in an initial step. After the process the canister (5) is ejected and the granules of refractory material collected and recycled by suitable equipment (20 to 24).

IPC 1-7  
**G21F 9/34**

IPC 8 full level  
**G21F 9/00** (2006.01); **G21F 9/16** (2006.01); **G21F 9/30** (2006.01); **G21F 9/34** (2006.01); **G21F 9/36** (2006.01)

CPC (source: EP)  
**G21F 9/008** (2013.01); **G21F 9/302** (2013.01); **G21F 9/34** (2013.01)

Citation (examination)  
US 3160502 A 19641208 - QUARTULLO ORPHEUS F

Cited by  
EP0209339A3; KR100790034B1; FR2584854A1; US4645624A; EP0115311A1; US4642204A; US4778626A; GB2121232A; US4582674A; US4638134A; GB2264586A; GB2264586B; US5414208A; EP0102246A1; US7078581B1; WO0135422A3; WO9207364A1; KR101139744B1

Designated contracting state (EPC)  
DE FR GB SE

DOCDB simple family (publication)  
**EP 0044692 A2 19820127**; **EP 0044692 A3 19820203**; **EP 0044692 B1 19861008**; DE 3175445 D1 19861113; JP H0219920 B2 19900507; JP S57118200 A 19820722

DOCDB simple family (application)  
**EP 81303221 A 19810714**; DE 3175445 T 19810714; JP 10953381 A 19810715