

12 **EUROPEAN PATENT APPLICATION**

21 Application number: **81303221.6**

51 Int. Cl.<sup>3</sup>: **G 21 F 9/34**

22 Date of filing: **14.07.81**

30 Priority: **15.07.80 AU 4534/80**

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43 Date of publication of application: **27.01.82 Bulletin 82/4**

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84 Designated Contracting States: **DE FR GB SE**

88 Date of deferred publication of search report: **03.02.82 Bulletin 82/5**

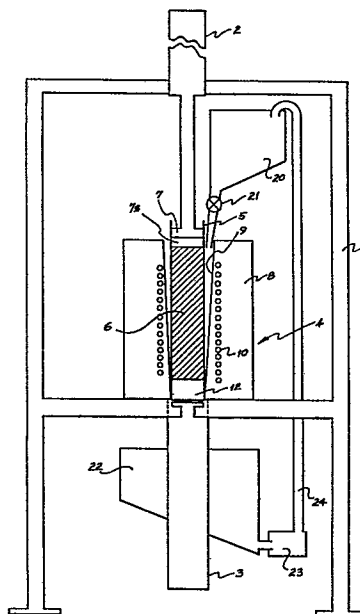
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54 **Arrangements for containing waste material.**

57 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).





European Patent  
Office

# EUROPEAN SEARCH REPORT

0044692  
Application Number  
EP 81 30 3221

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. <sup>3</sup> )
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	US - A - 3 000 072 (EVANS) * Claim 1; figures 2,3 *	1	G 21 F 9/34
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	FR - A - 2 369 659 (ASEA) * Claims 1,15 *	1	
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	DE - A - 2 659 691 (KERNFOR- SCHUNGSZENTRUM KARLSRUHE) * Claim 1; figure 1 *	1	TECHNICAL FIELDS SEARCHED (Int. Cl. <sup>3</sup> )
	----		G 21 F 9/16 9/34 9/36 9/30 9/28
			CATEGORY OF CITED DOCUMENTS
			X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons
			&: member of the same patent family, corresponding document
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
The Hague	06-11-1981	NICOLAS	