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54 Zirconium based alloy.

57 A Zr based alloy with 7-15% by weight Nb and 0.5-3% by weight Al can be quenched in water from 1000°C to largely retain beta phase. It is then deformable at room temperature to produce martensite.

The alloy, which can be made in an electric arc furnace and forged at 900°C to destroy the original solidification structure, is particularly suitable for structural components and fuel elements of nuclear reactors.



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
A	GB-A- 813 124 (THE UNITED KINGDOM ATOMIC ENERGY AUTHORITY) *Claims 1-6,9,11*	1-4	C 22 C 16/00
A	GB-A- 783 646 (THE UNITED KINGDOM ATOMIC ENERGY AUTHORITY) *Claims 1,2*	1	
A	US-A-3 341 373 (E.W.EVANS) *Claim 1*	4	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 3)
			C 22 C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 07-10-1982	RIES R Examiner
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	