

Title (en)  
METHOD OF MAKING A MOLYBDENUM ALLOY HAVING A HIGH TITANIUM CONTENT

Title (de)  
VERFAHREN ZUR HERSTELLUNG EINER MOLYBDÄNLEGIERUNG MIT HOHEM TITANGEHALT

Title (fr)  
PROCÉDÉ DE FABRICATION D'UN ALLIAGE DE MOLYBDÈNE À HAUTE TENEUR EN TITANE

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Application  
**EP 16193634 A 20161013**

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Abstract (en)  
The present invention relates to method of making a molybdenum alloy which has a high titanium content and further comprises silicon and/or boron. The method comprises subjecting to pressureless sintering or sintering under pressure in an inert gas atmosphere a mixture of one or more powders (i) of an alloy of Mo and Ti and, optionally, one or more additional metals X and/or (i') powders of Mo and of TiN, and (ii) one or more powders comprising one or more powders of silicides of Mo and/or Ti and/or (iii) one or more powders of nitrides which comprise Si 3 N 4 powder and/or BN powder.

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Citation (applicant)  
• WO 8503953 A1 19850912 - PLANSEE METALLWERK [AT]  
• US 2016060734 A1 20160303 - SMARSLY WILFRIED [DE], et al  
• DE 102011013894 A1 20120913 - FRAUNHOFER GES FORSCHUNG [DE]  
• US 2009011266 A1 20090108 - COCHRAN JOE K [US], et al

Citation (search report)  
• [X] US 5693156 A 19971202 - BERCZIK DOUGLAS M [US]  
• [X] GB 2253213 A 19920902 - TOKYO YOGYO KK [JP]  
• [X] US 3110589 A 19631112 - BECHTOLD MAX F  
• [XA] US 2016273368 A1 20160922 - SMARSLY WILFRIED [DE], et al  
• [A] US 4762557 A 19880809 - NAGARAJAN VAIDYANATHAN [US], et al  
• [A] M. A. AZIM ET AL: "Creep Resistance and Oxidation Behavior of Novel Mo-Si-B-Ti Alloys", JOM, 8 August 2015 (2015-08-08), XP055211964, ISSN: 1047-4838, DOI: 10.1007/s11837-015-1560-z

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