

Title (en)

Discontinuous fiber and particulate reinforced refractory metal composite.

Title (de)

Durch diskontinuierliche Fiber und Partikel verstärktes schwerschmelzbares Verbundmetall.

Title (fr)

Métal composite réfractaire renforcé par des fibres discontinues et des particules.

Publication

EP 0305766 A2 19890308 (EN)

Application

EP 88112814 A 19880805

Priority

US 9296387 A 19870903

Abstract (en)

A method of making a reinforced refractory metal composite. A composition is prepared which comprises about 50 to about 99.9% by volume of niobium and about 0.1 to about 50% by volume of a particulate or fibrous dispersoid. The particulate dispersoid is an oxide, carbide, or boride of titanium, hafnium, zirconium, silicon, or a mixture thereof. The fibrous dispersoid is a carbide or boride of titanium, hafnium, zirconium, silicon, or a mixture thereof. The composition is mechanically alloyed in vacuum or in an inert atmosphere if a particulate dispersed is used. It is then hot pressed at a temperature greater than at 1000 DEG C and a pressure greater than 70 atmospheres, and is extruded to form a shape. A fiber reinforced refractory metal composite made by this method is also described.

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B22F 3/20; C22C 1/10; C22C 32/00

IPC 8 full level

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CPC (source: EP KR)

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