

Title (en)

Pyrotechnic material and method for manufacturing

Title (de)

Pyrotechnisches Material und Verfahren zu deren Herstellung

Title (fr)

Substance pyrotechnique et procédé de fabrication d'une telle substance

Publication

EP 1500639 A3 20111130 (FR)

Application

EP 04291798 A 20040715

Priority

FR 0309260 A 20030725

Abstract (en)

[origin: EP1500639A2] Powder comprising cores of a first material coated with a binder layer containing nanoparticles of a second material is new. An independent claim is also included for producing a powder as above by preparing a solution of the binder in a first solvent (S1), preparing a bath of carrier liquid immiscible with S1, dispersing particles of the first material in the bath, adding nanoparticles of the second material while stirring the bath, adding the binder solution, adding a surfactant, stirring, removing S1 by washing with a second solvent, and filtering and/or drying the resulting powder.

IPC 8 full level

C06B 45/20 (2006.01); **B22F 1/18** (2022.01); **C06B 21/00** (2006.01); **C06B 45/30** (2006.01); **C06C 7/00** (2006.01)

CPC (source: EP US)

B22F 1/18 (2022.01 - EP US); **C06B 21/0083** (2013.01 - EP US); **C06B 45/20** (2013.01 - EP); **C06B 45/30** (2013.01 - EP); **C06C 7/00** (2013.01 - EP)

Citation (search report)

- [X] FR 2664160 A1 19920110 - POLA CHEM IND INC [JP]
- [X] EP 0800118 A1 19971008 - FUJI XEROX CO LTD [JP]
- [XY] DE 10142726 A1 20020529 - TRW INC [US]
- [IY] DE 4117718 C1 19920702
- [IY] EP 0220617 A2 19870506 - MERCK PATENT GMBH [DE]
- [IY] WO 0044689 A2 20000803 - CORDANT TECH INC [US]
- [Y] US 5750921 A 19980512 - CHAN MAY L [US], et al
- [A] US 5879079 A 19990309 - HOHMANN CARL W [US], et al
- [Y] US 3834955 A 19740910 - FOX R, et al
- [Y] FR 2031677 A5 19701120 - FRANCE ETAT
- [Y] US 3652350 A 19720328 - TIMMERMANS HUBERT G
- [Y] DE 1105784 B 19610427 - DEUTSCH FRANZ FORSCH INST
- [A] US 4994125 A 19910219 - MEI GEORGE C [US]
- [A] US 2002053377 A1 20020509 - MARTIN JOE A [US], et al

Cited by

FR2905882A1; WO2009081048A3; WO2019143865A1; US11167346B2; JP2011506262A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL HR LT LV MK

DOCDB simple family (publication)

EP 1500639 A2 20050126; EP 1500639 A3 20111130; EP 1500639 B1 20140326; FR 2857963 A1 20050128; FR 2857963 B1 20060908

DOCDB simple family (application)

EP 04291798 A 20040715; FR 0309260 A 20030725