

Title (en)
TRANSITION METAL-BASED CERAMIC MATERIAL AND ARTICLES FABRICATED THEREFROM

Title (de)
KERAMISCHES ÜBERGANGSMATERIAL AUF METALLBASIS UND DAMIT HERGESTELLTE ARTIKEL

Title (fr)
MATERIAU CERAMIQUE A BASE DE METAL DE TRANSITION ET ARTICLES PRODUITS A L'AIDE DE CELLE-CI

Publication
EP 1034572 A4 20040818 (EN)

Application
EP 97947314 A 19971030

Priority
US 9719817 W 19971030

Abstract (en)
[origin: WO9923712A1] A non-oxide, transition metal-based ceramic material has the general formula AyM₂Z_x, wherein A is a group IA element, M is a transition metal and Z is selected from the group consisting of N, C, B, Si, and combinations thereof, and wherein x <= 2 and y <= 6-x. In these materials, the group IA element occupies interstitial sites in the metallic lattice, and may be readily inserted into or released therefrom. The materials may be used as catalysts and as electrodes. Also disclosed herein are methods for the fabrication of the mates.

IPC 1-7
H01M 4/58; H01M 10/40; C04B 35/56; C04B 35/58

IPC 8 full level
C04B 35/58 (2006.01); **C01B 21/06** (2006.01); **C01G 31/00** (2006.01); **C01G 39/00** (2006.01); **H01M 4/38** (2006.01); **H01M 4/58** (2010.01);
H01M 4/583 (2010.01); **H01M 4/02** (2006.01); **H01M 10/0525** (2010.01); **H01M 10/36** (2010.01)

CPC (source: EP)
C01B 21/0602 (2013.01); **H01M 4/383** (2013.01); **H01M 4/58** (2013.01); **H01M 4/583** (2013.01); **C01P 2006/12** (2013.01);
C01P 2006/40 (2013.01); **H01M 10/0525** (2013.01); **Y02E 60/10** (2013.01)

Citation (search report)
• [A] EP 0646977 A2 19950405 - MATSUSHITA ELECTRIC IND CO LTD [JP]
• [A] EP 0744782 A1 19961127 - SHARP KK [JP]
• [X] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 07 31 July 1996 (1996-07-31)
• See references of WO 9923712A1

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 9923712 A1 19990514; CA 2308613 A1 19990514; EP 1034572 A1 20000913; EP 1034572 A4 20040818; JP 2001522133 A 20011113

DOCDB simple family (application)
US 9719817 W 19971030; CA 2308613 A 19971030; EP 97947314 A 19971030; JP 2000519478 A 19971030