

Title (en)  
MIXED OXIDE ACTIVE MATERIAL, ELECTRODE AND METHOD OF MANUFACTURING THE ELECTRODE AND ELECTROCHEMICAL CELL COMPRISING IT

Title (de)  
MISCHOXID-AKTIVES MATERIAL, ELEKTRODE UND VERFAHREN ZUR HERSTELLUNG DIESER ELEKTRODE UND ELEKTROCHEMISCHE ZELLE DIE DIESE ENTHÄLT

Title (fr)  
MATERIAU ACTIF A OXYDE MIXTE, ELECTRODE ET PROCEDE DE FABRICATION DE L'ELECTRODE, CELLULE ELECTROCHIMIQUE COMPRENANT CETTE DERNIERE

Publication  
**EP 1320906 A1 20030625 (EN)**

Application  
**EP 01972803 A 20010726**

Priority

- NL 0100621 W 20010726
- NL 1015886 A 20000807
- NL 1017632 A 20010319
- NL 1018266 A 20010612

Abstract (en)  
[origin: WO0213302A1] The invention relates to a mixed oxide material with a high electron conductivity, of empirical formula  $ABO_y$ , where  $y \neq 3$  and where A comprises at least one metal selected from Na, K, Rb, Ca, Ba, La, Pr, Sr, Ce, Nb, Pb, Nd, Sm and Gd, and B comprises at least one metal selected from the group consisting of Cu, Mg, Ti, V, Cr, Mn, Fe, Co, Nb, Mo, W and Zr, where A and B cannot both be Nb and where the compound  $SrVO_{2.5}$  is excluded. The material may be a perovskite-type material, in which  $y = 3 - \delta$  and  $\delta \neq 0$ , with values for  $\delta$  in the range from approximately -0.2 to approximately -0.05 or in the range from +0.05 to +0.7. The material may also be a Brown-Millerite-type material, for which  $y = 2.5 - x$  and  $x$  has a value in the range from approximately -0.2 to approximately -0.05 or in the range from +0.05 to approximately 0.3. The invention also describes an electrode for an electrochemical cell which can be produced from a mixed oxide material of this type, a method for producing an electrode from a mixed oxide material and an electrochemical cell which comprises at least one electrode of this type made from mixed oxide material according to the invention.

IPC 1-7  
**H01M 8/12**; H01M 4/48; H01M 4/90; H01G 4/12

IPC 8 full level  
**C01G 51/00** (2006.01); **H01B 1/08** (2006.01); **H01B 1/20** (2006.01); **H01G 9/00** (2006.01); **H01G 9/058** (2006.01); **H01G 9/155** (2006.01); **H01M 4/24** (2006.01); **H01M 4/48** (2010.01); **H01M 4/88** (2006.01); **H01M 4/90** (2006.01); **H01M 8/10** (2006.01); **H01M 8/12** (2006.01); **H01M 12/06** (2006.01); **H01M 4/02** (2006.01)

CPC (source: EP KR US)  
**C01G 51/68** (2013.01 - EP US); **C04B 35/01** (2013.01 - EP US); **H01G 11/30** (2013.01 - EP); **H01G 11/46** (2013.01 - EP KR US); **H01G 11/86** (2013.01 - EP KR); **H01M 4/48** (2013.01 - EP US); **H01M 4/9016** (2013.01 - EP US); **H01M 4/9033** (2013.01 - EP US); **C01P 2002/34** (2013.01 - EP US); **C01P 2002/54** (2013.01 - EP US); **C01P 2006/12** (2013.01 - EP US); **C01P 2006/40** (2013.01 - EP US); **C04B 2235/3213** (2013.01 - EP US); **C04B 2235/3224** (2013.01 - EP US); **C04B 2235/3272** (2013.01 - EP US); **C04B 2235/3275** (2013.01 - EP US); **C04B 2235/3289** (2013.01 - EP US); **C04B 2235/3296** (2013.01 - EP US); **H01G 11/06** (2013.01 - EP); **H01M 4/02** (2013.01 - EP US); **H01M 12/06** (2013.01 - EP US); **Y02E 60/13** (2013.01 - US); **Y02E 60/50** (2013.01 - EP); **Y10T 29/49002** (2015.01 - EP US)

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

DOCDB simple family (publication)  
**WO 0213302 A1 20020214**; **WO 0213302 A8 20020516**; AU 9244301 A 20020218; CA 2417013 A1 20020214; CZ 2003246 A3 20030618; EP 1320906 A1 20030625; HU P0302080 A2 20030929; IL 154204 A0 20030731; JP 2004506302 A 20040226; KR 20030038687 A 20030516; NZ 523942 A 20040730; PL 360437 A1 20040906; US 2004089540 A1 20040513

DOCDB simple family (application)  
**NL 0100621 W 20010726**; AU 9244301 A 20010726; CA 2417013 A 20010726; CZ 2003246 A 20010726; EP 01972803 A 20010726; HU P0302080 A 20010726; IL 15420401 A 20010726; JP 2002518555 A 20010726; KR 20037001740 A 20030206; NZ 52394201 A 20010726; PL 36043701 A 20010726; US 34408303 A 20030624