

Title (en)

AMORPHOUS AND PARTIALLY AMORPHOUS NANOSCALE ION STORAGE MATERIALS

Title (de)

AMORPHE UND TEILWEISE AMORPHE IONENSPEICHERMATERIALIEN AUF NANOMASSSTAB

Title (fr)

NANOMATERIAUX D ACCUMULATION IONIQUE AMORPHES ET PARTIELLEMENT AMORPHES

Publication

**EP 1972018 A4 20101215 (EN)**

Application

**EP 06844738 A 20061201**

Priority

- US 2006046085 W 20061201
- US 74160605 P 20051202
- US 39651506 A 20060403

Abstract (en)

[origin: WO2007064934A2] Amorphous or partially amorphous nanoscale ion storage materials are provided. For example, lithium transition metal phosphate storage compounds are nanoscale and amorphous or partially amorphous in an as-prepared state, or become amorphous or partially amorphous upon electrochemical intercalation or de- intercalation by lithium. These nanoscale ion storage materials are useful for producing devices such as high energy and high power storage batteries.

IPC 8 full level

**H01M 4/52** (2010.01); **H01M 4/136** (2010.01); **H01M 4/58** (2010.01); H01M 4/02 (2006.01); **H01M 10/0525** (2010.01); **H01M 10/36** (2010.01)

CPC (source: EP KR)

**B82Y 30/00** (2013.01 - EP); **C01B 25/26** (2013.01 - KR); **C01B 25/45** (2013.01 - EP); **C01D 15/00** (2013.01 - EP); **H01M 4/04** (2013.01 - KR); **H01M 4/136** (2013.01 - EP); **H01M 4/485** (2013.01 - KR); **H01M 4/5825** (2013.01 - EP); **H01M 10/0525** (2013.01 - EP); **B82Y 30/00** (2013.01 - KR); **C01P 2002/02** (2013.01 - EP); **C01P 2002/04** (2013.01 - EP); **C01P 2004/62** (2013.01 - EP); **C01P 2004/64** (2013.01 - EP); **H01M 2004/021** (2013.01 - EP); **Y02E 60/10** (2013.01 - EP)

Citation (search report)

- [X] WO 02089233 A2 20021107 - NEO PHOTONICS CORP [US], et al
- [X] WO 03056646 A1 20030710 - MASSACHUSETTS INST TECHNOLOGY [US]

Citation (examination)

- JP 2005259629 A 20050922 - SANYO ELECTRIC CO
- US 5869208 A 19990209 - MIYASAKA TSUTOMU [JP]
- EP 0938147 A2 19990825 - CANON KK [JP]
- WO 03092099 A1 20031106 - LG CHEMICAL LTD [KR], et al
- SEUNG-TAEK MYUNG ET AL: "Emulsion Drying Preparation of LiFePO<sub>4</sub> /C Composite and Its Enhanced High-rate Performance at 50 °C", CHEMISTRY LETTERS, vol. 32, no. 7, 1 July 2003 (2003-07-01), JAPAN, pages 566 - 567, XP055352470, ISSN: 0366-7022, DOI: 10.1246/cl.2003.566

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**WO 2007064934 A2 20070607**; **WO 2007064934 A3 20080515**; CN 101361210 A 20090204; CN 101361210 B 20141126; EP 1972018 A2 20080924; EP 1972018 A4 20101215; JP 2009518262 A 20090507; JP 2013227215 A 20131107; JP 5548366 B2 20140716; JP 6328888 B2 20180523; KR 101320788 B1 20131023; KR 20080074208 A 20080812

DOCDB simple family (application)

**US 2006046085 W 20061201**; CN 200680051496 A 20061201; EP 06844738 A 20061201; JP 2008543508 A 20061201; JP 2013097415 A 20130507; KR 20087016190 A 20061201