Title (en)

NANOSCALE ION STORAGE MATERIALS

Title (de)

NANOSKALIGE IONENSPEICHERUNGSMATERIALIEN

Title (fr)

MATÉRIAUX DE STOCKAGE D'IONS À ÉCHELLE NANOMÉTRIQUE

Publication

EP 2118949 A4 20140226 (EN)

Application

EP 08782740 A 20080131

Priority

- US 2008052584 W 20080131
- US 88892907 P 20070208
- US 67293107 A 20070208

Abstract (en)

[origin: WO2008109209A2] Nanoscale ion storage materials are provided that exhibit unique properties measurably distinct from their larger scale counterparts. For example, the nanoscale materials can exhibit increased electronic conductivity, improved electromechanical stability, increased rate of intercalation, and/or an extended range of solid solution. Useful nanoscale materials include alkaline transition metal phosphates, such as LiMPO4, where M is one or more transition metals. The nanoscale ion storage materials are useful for producing devices such as high energy and high power storage batteries, battery-capacitor hybrid devices, and high rate electrochromic devices.

IPC 8 full level

H01M 4/58 (2010.01); **C01B 25/45** (2006.01); **H01M 10/052** (2010.01); **H01M 10/36** (2010.01); **H01M 10/44** (2006.01); H01M 4/02 (2006.01)

CPC (source: EP KR)

B82Y 30/00 (2013.01 - KR); **C01B 25/45** (2013.01 - EP KR); **H01M 4/48** (2013.01 - KR); **H01M 4/485** (2013.01 - KR); **H01M 4/5825** (2013.01 - EP); **H01M 10/052** (2013.01 - EP); **H01M 10/44** (2013.01 - KR); H01M 2004/021 (2013.01 - EP); Y02E 60/10 (2013.01 - EP)

Citation (search report)

- [E] WO 2008039170 A2 20080403 - A123 SYSTEMS INC [US], et al
- [XP] WO 2007064934 A2 20070607 - A123 SYSTEMS INC [US], et al
- [X] WO 02089233 A2 20021107 - NEO PHOTONICS CORP [US], et al
- See references of WO 2008109209A2

Designated contracting state (EPC)

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DOCDB simple family (publication)

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US 2008052584 W 20080131; CN 200880009462 A 20080131; EP 08782740 A 20080131; JP 2009549177 A 20080131; KR 20097018664 A 20080131; TW 97103922 A 20080201