

Title (en)

CONDUCTING POLYMER-INORGANIC NANOPARTICLE (CPIN) NANOARRAYS AND METHOD OF MAKING SAME AND A BATTERY UTILIZING CPIN NANOARRAYS

Title (de)

LEITENDE POLYMER-ANORGANISCHE NANOPARTIKEL (CPIN) NANOANORDNUNG, VERFAHREN ZU DESSEN HERSTELLUNG, SOWIE BATTERIE DIESE NANOANORDNUNG VERWENDEND.

Title (fr)

NANOSEAUX DE NANOParticules INORGANIQUES ET DE POLYMERES CONDUCTEURS (CPIN), PROCEDE DE FABRICATION, ET BATTERIE COMPRENANT DES NANOSEAUX CPIN

Publication

**EP 1515807 A4 20051123 (EN)**

Application

**EP 03724453 A 20030506**

Priority

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- US 37761702 P 20020506

Abstract (en)

[origin: WO03095111A1] A conducting polymer-inorganic nanoparticle nanoarray is provided. Nanoparticles are formed and capped which provide enhanced properties to the nanoparticles and allow easier handling of them. The capping may be done when the nanoparticles are formed and may functionalize the nanoparticles. The nanoparticles are then bound to conducting polymers in order to produce an electrically conducting matrix which may in turn be electrically bound to a substrate to form an anode or cathode for a Lithium battery. In the matrix the nanoparticles are wired to each other electrically via the capping agent and/or the conducting polymer. The conducting polymer allows for repeated Li<sup>+</sup> insertion in use as a battery anode or cathode.

IPC 1-7

**B05D 7/00; B05D 7/24; B32B 5/16; H01M 4/36**

IPC 8 full level

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CPC (source: EP US)

**C08K 9/04** (2013.01 - EP); **H01B 1/08** (2013.01 - EP); **H01B 1/127** (2013.01 - EP); **H01M 4/621** (2013.01 - EP); **H01M 4/622** (2013.01 - EP); **H01M 10/058** (2013.01 - EP US); **C08K 2201/013** (2013.01 - EP); **H01M 10/0472** (2013.01 - EP); **H01M 10/052** (2013.01 - EP); **H01M 2004/021** (2013.01 - EP); **Y02E 60/10** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Citation (search report)

- [X] US 6344272 B1 20020205 - OLDENBURG STEVEN J [US], et al
- See references of WO 03095111A1

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