

Title (en)
BATTERY CATHODE

Title (de)
BATTERIE KATHODE

Title (fr)
CATHODE DE PILE

Publication
EP 1042829 A4 20040714 (EN)

Application
EP 98963897 A 19981214

Priority

- US 9826490 W 19981214
- US 182297 A 19971231
- US 5492898 A 19980403

Abstract (en)
[origin: WO9934462A1] A cathode (12) that includes manganese dioxide and relatively small particles of nonsynthetic, nonexpanded graphite is disclosed. The graphite particles can have an average particle size of less than 20 microns. The cathode (12) can be used in an electrochemical cell, such as a battery (10).

IPC 1-7
H01M 4/30; H01M 4/62

IPC 8 full level
H01M 4/06 (2006.01); **H01M 4/24** (2006.01); **H01M 4/50** (2010.01); **H01M 4/62** (2006.01); **H01M 6/06** (2006.01); **H01M 6/08** (2006.01); **H01M 50/414** (2021.01); **H01M 50/429** (2021.01); **H01M 50/449** (2021.01); **H01M 50/491** (2021.01); **H01M 4/02** (2006.01)

CPC (source: EP US)
H01M 4/244 (2013.01 - EP); **H01M 4/50** (2013.01 - EP); **H01M 4/625** (2013.01 - EP); **H01M 6/08** (2013.01 - EP); **H01M 50/414** (2021.01 - EP US); **H01M 50/429** (2021.01 - EP US); **H01M 50/491** (2021.01 - EP US); **H01M 50/44** (2021.01 - EP); **H01M 2004/028** (2013.01 - EP); **Y02E 60/10** (2013.01 - EP)

Citation (search report)

- [X] TAKEDA K: "OPTIMIZING THE PARAMETERS OF CELL EXPANSION IN ALKALINE MANGANESE DIOXIDE BUTTON CELLS", JOURNAL OF POWER SOURCES, ELSEVIER SEQUOIA S.A. LAUSANNE, CH, vol. 32, no. 1, 1 July 1990 (1990-07-01), pages 9 - 17, XP000160866, ISSN: 0378-7753
- [X] PATENT ABSTRACTS OF JAPAN vol. 010, no. 099 (E - 396) 16 April 1986 (1986-04-16)
- [X] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 02 29 February 1996 (1996-02-29)
- [A] PATENT ABSTRACTS OF JAPAN vol. 012, no. 330 (E - 655) 7 September 1988 (1988-09-07)
- See references of WO 9934462A1

Designated contracting state (EPC)
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US 9826490 W 19981214; AR P980106710 A 19981229; AU 1913299 A 19981214; CA 2313790 A 19981214; CN 98812838 A 19981214; EP 98963897 A 19981214; JP 2000526986 A 19981214; TW 87121895 A 19981230