Title: Li/MnO$_2$ BATTERY SEPARATORS WITH SELECTIVE ION TRANSPORT

Abstract: A method for selectively blocking flow of manganese ions from manganese dioxide electrode to a lithium electrode in lithium-manganese dioxide cell comprising the steps of: providing a lithium electrode adapted to providing lithium ions; providing a manganese dioxide electrode adapted to providing manganese ions; and blocking flow of manganese ions from the manganese dioxide electrode to the lithium electrode but allow lithium ions to flow freely between the lithium electrode to the manganese dioxide electrode and back by; providing a battery separator between the manganese dioxide electrode and the lithium electrode where the separator selectively allow transport of lithium ions between the lithium electrode to the manganese dioxide electrode, but blocks flow of manganese ions from the manganese dioxide electrode to the lithium electrode.
**INTERNATIONAL SEARCH REPORT**

**A. CLASSIFICATION OF SUBJECT MATTER**

**IPC:** H01M 4/58(2006.01), 4/50(2006.01)

**USPC:** 429/231.1, 224, 223, 231.6, 231.5, 221, 231.2, 231.3, 229

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S.: 429/231.1, 224, 223, 231.6, 231.5, 221, 231.2, 231.3, 229

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database consulted during the international search (name of database and, where practicable, search terms used)

EAST

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
</table>

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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**Date of the actual completion of the international search**

14 June 2006 (14.06.2006)

**Date of mailing of the international search report**

06 JUL 2006

**Name and mailing address of the ISA/US**

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