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(54) Title: ELECTROCHEMICAL CELLS WITH IONIC LIQUID ELECTROLYTE

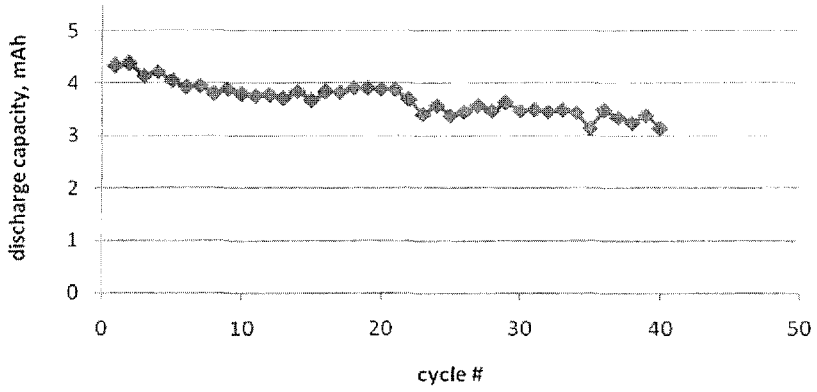


FIG. 1

(57) Abstract: The present invention provides a lithium-ion electrochemical cell comprising an ionic liquid electrolyte solution and a positive electrode having a carbon sheet current collector.

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INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

H01M 10/05(2010.01)i, H01M 4/48(2006.01)i, H01M 4/58(2006.01)i

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)

IPC H01M 10/40, 2/02, 4/02, 6/16

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

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

eKOMPASS(KIPO internal) "lithium, ion, electrochemical cell, thermal, stability, characteristics, ionic liquid, cation, anion, pyridinium, pyrimidium, pyrazinium"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2002373704 A (YUASA Corp.) 26 Dec. 2002 See abstract, pages 1~9 and claims 1~6.	1~19, 21~23, 30, 35~39
Y		24~29
Y	US 05965054 A (Alan B. McEwen, etc.) 12 Oct. 1999 See abstract, columns 1~9, and claims 1~12.	24~29

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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Date of the actual completion of the international search	Date of mailing of the international search report
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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2002-373704 A	2002.12.26	None	
US 05965054 A	12.10.1999	EP 1027713 A4	11.08.2004
		EP 1027713 A1	16.08.2000
		JP 2001-512903 A	28.08.2001
		WO 1999-008299 A1	18.02.1999