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(71) Applicant: WORLD PROPERTIES INC. [US/US];
Suite 410, 7366 North Lincoln Avenue, Lincolnwood, IL
60646 (US).

(72) Inventors: FITTS, Bruce, B.; 86 Jacques Road, Daniel-
son, CT 06239 (US). LANDI, Vincent, R.; 240 Green Hol-
low Road, Danielson, CT 06239 (US). ROY, Saroj, K.; 840
North Main Street, Danielson, CT 06239 (US).

(74) Agent: REIMER, Leah, M.; Cantor Colburn LLP, 55
Griffin Road South, Bloomfield, CT 06002 (US).

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(54) Title: THERMOSETTING COMPOSITION FOR ELECTROCHEMICAL CELL COMPONENTS AND METHODS OF MAKING THEREOF

(57) Abstract: A conductive, moldable composite material for the manufacture of electrochemical cell components comprising a thermosetting resin system and conductive filler wherein the thermosetting resin composition comprises: (1) a polybutadiene or polyisoprene resin; (2) an optional functionalized liquid polybutadiene or polyisoprene resin; (3) an optional butadiene- or isoprene-containing copolymer; and (4) an optional low molecular weight polymer. In a preferred embodiment, the conductive moldable composite material is used to form a bipolar plate, current collector or other electrochemical cell component. Articles made of the conductive moldable composite material are resistant to chemical attack and hydrolysis, have excellent mechanical strength and toughness, have a volume resistivity of about 1.006 ohm-cm or less and preferably about 0.04 ohm-cm or less and a thermal conductivity of at least about 5 watts/meter °K.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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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)
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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 practical, search terms used)
CHEM ABS Data, WPI Data, PAJ, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE WPI Section Ch, Week 198730 Derwent Publications Ltd., London, GB; Class A12, AN 1987-210844 XP002210989 -& JP 62 138549 A (IDEMITSU PETROCHEM CO), 22 June 1987 (1987-06-22) abstract</p> <p style="text-align: center;">---</p>	1-7
X	<p>DATABASE WPI Section Ch, Week 198706 Derwent Publications Ltd., London, GB; Class A85, AN 1987-040175 XP002210990 -& JP 61 296067 A (TOSHIBA CHEM CORP), 26 December 1986 (1986-12-26) abstract</p> <p style="text-align: center;">---</p> <p style="text-align: center;">-/--</p>	1-7

Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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A document defining the general state of the art which is not considered to be of particular relevance	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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O document referring to an oral disclosure, use, exhibition or other means	*&* document member of the same patent family
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Riba Vilanova, M
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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