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- (71) Applicant (for all designated States except US): **LG FUEL CELL SYSTEMS INC.** [US/US]; 6065 Strip Avenue NW, North Canton, OH 44720 (US).
- (72) Inventors; and
(75) Inventors/Applicants (for US only): **LIU, Zhien** [US/US]; 6763 Canter Hill Circle NE, Canton, OH 44721 (US). **GOETTLER, Richard** [US/US]; 4030 Dan Road, Medina, OH 44256 (US).
- (74) Agents: **GOSNELL, Paul** et al.; Krieg DeVault LLP, One Indiana Square, Suite 2800, Indianapolis, IN 46204 (US).
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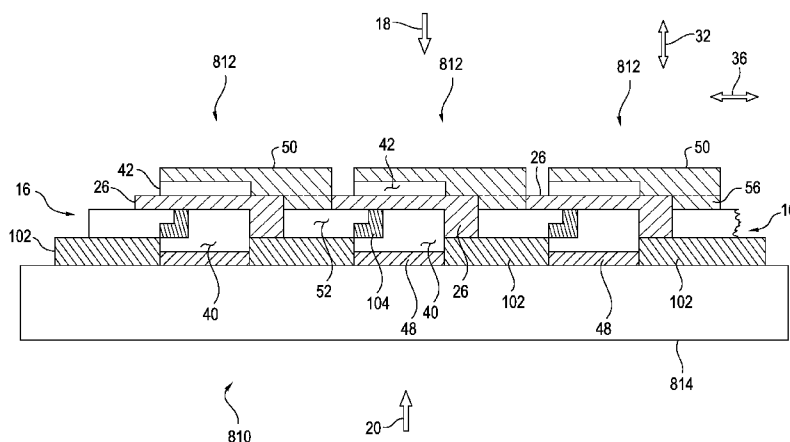


FIG. 13

(57) Abstract: The present invention includes a fuel cell system having a plurality of adjacent electrochemical cells formed of an anode layer, a cathode layer spaced apart from the anode layer, and an electrolyte layer disposed between the anode layer and the cathode layer. The fuel cell system also includes at least one interconnect, the interconnect being structured to conduct free electrons between adjacent electrochemical cells. Each interconnect includes a primary conductor embedded within the electrolyte layer and structured to conduct the free electrons.



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 12/42073

<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - H01M 8/10 (2012.01) USPC - 429/479 According to International Patent Classification (IPC) or to both national classification and IPC</p>												
<p>B. FIELDS SEARCHED</p>												
<p>Minimum documentation searched (classification system followed by classification symbols) USPC: 429/479</p>												
<p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 429/149, 158, 160, 400, 479, 482, 517</p>												
<p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWEST(PGPB, USPT, EPAB, JPAB); Google Scholar Search Terms Used: fuel cell interconnect chemical barrier anode cathode electrolyte doped blind conductor nickel precious metal oxygen</p>												
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p>												
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.										
Y	US 2005/0221138 A1 (CHINCHURE et al.) 06 October 2005 (06.10.2005), Abstract, para [0017]-[0018], [0030]	1-39										
Y	US 2010/0209802 A1 (ARMSTRONG et al.) 19 August 2010 (19.08.2010), para [0015], [0017], [0041]-[0043], [0057]-[0058]	1-39										
Y	US 2007/0037031 A1 (CASSIDY et al.) 15 February 2007 (15.02.2007), para [0015], Fig. 1	3-5										
Y	US 2005/0227134 A1 (NGUYEN) 13 October 2005 (13.10.2005), para [0008], [0015], [0025]	7-8										
Y	US 2009/0035635 A1 (BAE et al.) 05 February 2009 (05.02.2009), para [0041]	21-22, 29-30										
Y	US 2007/0259242 A1 (SCHAEVITZ et al.) 08 November 2007 (08.11.2007), Abstract	31, 39										
<p><input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/></p>												
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>“A” document defining the general state of the art which is not considered to be of particular relevance</td> <td>“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</td> </tr> <tr> <td>“E” earlier application or patent but published on or after the international filing date</td> <td>“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>“O” document referring to an oral disclosure, use, exhibition or other means</td> <td>“&” document member of the same patent family</td> </tr> <tr> <td>“P” document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			“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	“E” earlier application or patent but published on or after the international filing date	“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	“O” document referring to an oral disclosure, use, exhibition or other means	“&” document member of the same patent family	“P” document published prior to the international filing date but later than the priority date claimed	
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<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201</p>		<p>Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>										