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62/170,995 4 June 2015 (04.06.2015) US
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Published:

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12 January 2017



WO 2016/196993 A3

(54) Title: MULTI-MEDIATOR REAGENT FORMULATIONS FOR USE IN ELECTROCHEMICAL DETECTION

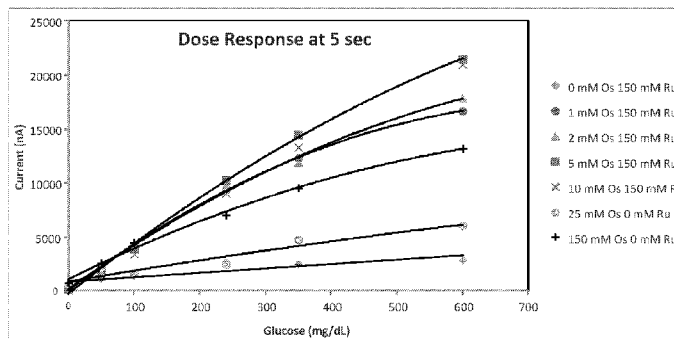


FIG. 1

(57) Abstract: The present disclosure provides, *inter alia*, mediator formulations for the measurement of an analyte comprising at least one ruthenium compound and at least one osmium compound. Also disclosed are reagent formulations for the measurement of an analyte comprising at least one ruthenium compound and at least one osmium compound. Also disclosed are methods and devices for the measurement of an analyte in a sample.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 16/35817

<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - C12Q 1/00; C12Q 1/26 (2016.01) CPC - A61K 38/00 G01N 33/5008 G01N 2500/00 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) IPC(8)- C12Q 1/00; C12Q 1/26 (2016.01) CPC-A61K 38/00 G01N 33/5008 G01N 2500/00</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC-435/4, 25, 14,817</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PatBase, Google Patents, Google Scholar (without Patents) Keywords: detecting analyte buffer oxidmeductase coenzyme cofactor ruthenium osmium thickening agent surfactant</p>														
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <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> <tbody> <tr> <td>X ---- Y</td> <td>US 2006/0113187 A1 (Deng et al.) 01 June 2006(01.06.2006) Abstract, para [0008], para [0009], para [0011], para [0026], para [0039], and entire document</td> <td>1, 16, 19, 55 ----- 2-3,6,12,23,32-33,56-59,62-64,67-69,76-78</td> </tr> <tr> <td>Y</td> <td>US 5,589,326 A (Deng et al.) 31 December 1996 (31.12.1996) Abstract, col 1 ln 30-70; col 12 ln 5-50; col 13 ln 15-20; and entire document</td> <td>2-3,6,12,32-33,56-59,62-64,67-69,76-78</td> </tr> <tr> <td>Y</td> <td>US 2010/0227355 A1 (Bell et al.) 09 September 2010 (09.09.2010) Abstract, para [0008]</td> <td>23</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X ---- Y	US 2006/0113187 A1 (Deng et al.) 01 June 2006(01.06.2006) Abstract, para [0008], para [0009], para [0011], para [0026], para [0039], and entire document	1, 16, 19, 55 ----- 2-3,6,12,23,32-33,56-59,62-64,67-69,76-78	Y	US 5,589,326 A (Deng et al.) 31 December 1996 (31.12.1996) Abstract, col 1 ln 30-70; col 12 ln 5-50; col 13 ln 15-20; and entire document	2-3,6,12,32-33,56-59,62-64,67-69,76-78	Y	US 2010/0227355 A1 (Bell et al.) 09 September 2010 (09.09.2010) Abstract, para [0008]	23
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<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" document published prior to the international filing date but later than the priority date claimed														
<p>Date of the actual completion of the international search 11 August 2016 (11.08.2016)</p>		<p>Date of mailing of the international search report 18 NOV 2016</p>												
<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. 571-273-8300</p>		<p>Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>												

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 16/35817

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.: 4-5, 7-11, 13-15, 17-18, 20-22, 24-31, 34-54, 60-61, 65-66, 70-75, 79-86
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.