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(54) Title: RAPID TESTS FOR THE DETECTION OF INHIBITORS OF ENZYMES AND HUMAN EXPOSURE TO THE SAME

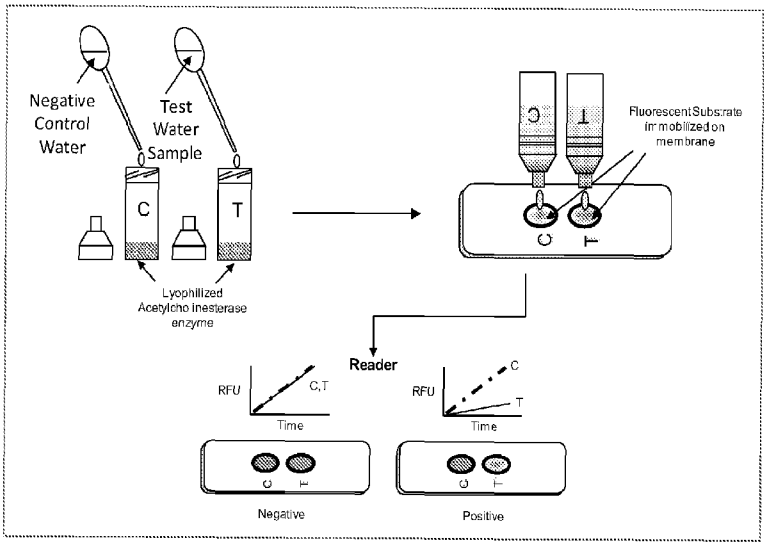

Figure 1

(57) Abstract: A device and method for the rapid on-site detection of inhibitors of enzymes, such as, acetylcholinesterase is described where the device contains 2 reaction zones containing a reporter enzyme substrate. One reaction zone is for the test sample while the other is for an onboard negative control. Sample and control fluids are preincubated with the enzyme in separate reaction containers, then an aliquot of each reaction mixture is added to designated reaction zones on the test device. A purpose- built reader or an illuminating device, such as, containing an incandescent light source, a diode, a UV light source or any other illumination source that is suitable for the reporter or mere visualization is used to determine the level of reporter.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

G01N 33/68(2006.01)i, C12Q 1/44(2006.01)i, G01N 33/52(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)
G01N 33/68; G01N 33/52; C12Q 1/00; G01N 33/543; G01N 33/53; C12M 3/00; C12M 1/34

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: enzyme inhibitor, acetylcholinesterase, pesticide

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2010-041078 A1 (CAMBRIDGE ENTERPRISE LIMITED et al.) 15 April 2010 See whole the document.	1-20
A	US 2005-0089926 A1 (PALMER TAYLOR et al.) 28 April 2005 See whole the document.	1-20
A	WO 2008-024778 A1 (ANP TECHNOLOGIES, INC. et al.) 28 February 2008 See whole the document.	1-20

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

☒ See patent family annex.

* Special categories of cited documents:
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"&" document member of the same patent family

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
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		AU 2003-225022 A8	03.11.2003
		WO 03-089599 A2	30.10.2003
		WO 03-089599 A3	30.10.2003
WO 2008-024778 A1	28.02.2008	US 2010-0178204 A1	15.07.2010