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Declarations under Rule 4.17:

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- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

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(54) **Title:** DEVICES AND METHODS FOR DETERMINATION OF BIOAVAILABILITY OF POLLUTANTS

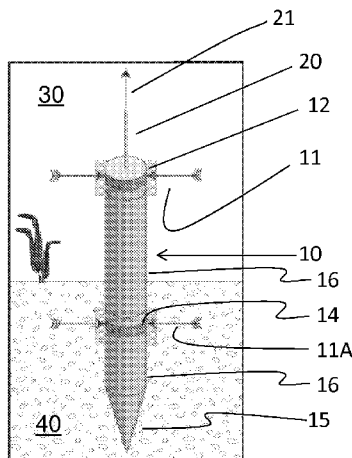


FIG. 4

(57) **Abstract:** Contaminant mass collection in saturated sedimentary environments for bioavailability determination. A casing includes a screen between the environment that is subject to sampling, such as a saturated sediment and the device itself. The casing includes a water intake zone, a pump, and sorptive media. The water intake zone, the pump, the screen and the sorptive media, are all operably linked in sequence. The screened casing is secured to form an in situ device; the screen is in fluid communication with the water intake zone and excludes endemic sediments and aquatic life. The in situ device is deployed in the saturated sedimentary environment. The pump operates to concentrate analytes from the selected environment in the sorptive media, where the concentrated analytes include the analyte mass of time-weighted fluid samples.



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/033912**A. CLASSIFICATION OF SUBJECT MATTER***G01N 33/18(2006.01)i, G01N 1/14(2006.01)i, G01N 35/10(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 33/18; C12Q 1/04; C02F 1/32; E21B 49/00; G01N 1/00; A61M 1/00

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: contaminant, collection, saturated sedimentary environment, kinetic rate

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2009-105241 A1 (THE JOHNS HOPKINS UNIVERSITY) 27 August 2009 See abstract; page 1, para. 5; page 12, para. 2; claims 1-2, 17; fig. 2.	1-42
A	US 2007-0161076 A1 (ROLF U. HALDEN) 12 July 2007 See abstract; paras. 9, 33, 43-44, 65, 67, 69; claims 1-2, 4, 11, 13.	1-42
A	US 2003-0004474 A1 (DANIEL L. BARKER) 02 January 2003 See abstract; para. 16; claim 1; fig. 1.	1-42
A	US 04628748 A (MICHAEL J. JOGAN et al.) 16 December 1986 See abstract; col. 2, line 53 - col. 5, line 8; claims 1, 16.	1-42
A	US 2005-0218082 A1 (CHRISTIAN WILLIAMSON et al.) 06 October 2005 See abstract; paras. 13, 14-16, 88; claims 1, 11.	1-42

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

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"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

"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

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"&" document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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