

Title (en)

SYSTEMS AND METHODS FOR DETECTING MICROANNULUS FORMATION AND REMEDIATION

Title (de)

SYSTEME UND VERFAHREN ZUR ERKENNUNG UND BEHEBUNG EINER MIKROANNULUSBILDUNG

Title (fr)

SYSTÈMES ET PROCÉDÉS POUR DÉTECTER LA FORMATION DE MICRO-ESPACES ANNULAIRES ET Y REMÉDIER

Publication

**EP 2877679 A1 20150603 (EN)**

Application

**EP 13759107 A 20130828**

Priority

- US 201213615714 A 20120914
- US 2013057024 W 20130828

Abstract (en)

[origin: US2014076550A1] Optical analysis systems may be useful in detecting microannulus formation in a wellbore casing and remediating a microannulus. In some instances, a system may include a cement sheath disposed about and in contact with at least a portion of an exterior surface of a casing; and at least one optical computing device arranged coupled to the casing, the at least one optical computing device having at least one integrated computational element configured to optically interact with a material of interest and thereby generate optically interacted light, and at least one detector arranged to receive the optically interacted light and generate an output signal corresponding to a characteristic of the material of interest, the material of interest comprising at least one selected from the group consisting of the cement sheath, a displacement composition disposed between the cement sheath and the exterior surface of the casing, and any combination thereof.

IPC 8 full level

**E21B 33/14** (2006.01); **E21B 47/12** (2012.01); **G01N 21/17** (2006.01)

CPC (source: EP US)

**E21B 33/14** (2013.01 - EP US); **E21B 47/135** (2020.05 - EP US); **G01N 21/47** (2013.01 - EP US)

Citation (search report)

See references of WO 2014042874A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**US 2014076550 A1 20140320**; AR 092558 A1 20150422; AU 2013315935 A1 20150226; BR 112015004933 A2 20170704; CA 2882075 A1 20140320; EP 2877679 A1 20150603; MX 2015002470 A 20150910; WO 2014042874 A1 20140320

DOCDB simple family (application)

**US 201213615714 A 20120914**; AR P130103283 A 20130913; AU 2013315935 A 20130828; BR 112015004933 A 20130828; CA 2882075 A 20130828; EP 13759107 A 20130828; MX 2015002470 A 20130828; US 2013057024 W 20130828