

Title (en)

DEFORMABLE DOWNHOLE STRUCTURES INCLUDING CARBON NANOTUBE MATERIALS, AND METHODS OF FORMING AND USING SUCH STRUCTURES

Title (de)

VERFORMBARE BOHRLOCHSTRUKTUREN MIT KOHLENSTOFFNANORÖHRCHENMATERIALIEN UND VERFAHREN ZUR FORMUNG UND VERWENDUNG SOLCHER STRUKTUREN

Title (fr)

STRUCTURES DE FOND DE TROU DÉFORMABLES COMPRENANT DES MATÉRIAUX EN NANOTUBES DE CARBONE ET PROCÉDÉS DE FORMATION ET D'UTILISATION DE TELLES STRUCTURES

Publication

**EP 3426876 A1 20190116 (EN)**

Application

**EP 17763825 A 20170306**

Priority

- US 201615063034 A 20160307
- US 2017020903 W 20170306

Abstract (en)

[origin: US2017254170A1] A deformable downhole article for use in a wellbore includes a tubular component configured for placement in a wellbore, a deformable material disposed around an outer surface of the tubular component, and an electrically conductive element comprising a carbon nanotube (CNT) material bonded to the deformable material. To form such a deformable downhole article, a deformable material is disposed around an outer surface of a tubular component, and an electrically conductive element comprising a carbon nanotube (CNT) material is bonded to the deformable material. In use, the deformable downhole article may be positioned within a wellbore, and the deformable material may be expanded to an expanded state. Expansion of the deformable material may strain the carbon nanotube (CNT) material of the electrically conductive element, and an electrical property of the electrically conductive element may be measured to deduce information about the state of the deformable material.

IPC 8 full level

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CPC (source: EP US)

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