

Title (en)
NANOHYBRID PHASE INTERFACES FOR ALTERING WETTABILITY IN OIL FIELD APPLICATIONS

Title (de)
NANOHYBRIDPHASEN-SCHNITTSTELLEN ZUR ÄNDERUNG EINER BENETZBARKEIT IN ÖLFELDDANWENDUNGEN

Title (fr)
INTERFACES DE PHASE NANOHYBRIDE POUR ALTÉRER LA MOUILLABILITÉ DANS DES APPLICATIONS DE CHAMP PÉTROLIFÈRE

Publication
EP 2809741 A4 20150729 (EN)

Application
EP 13744247 A 20130129

Priority

- US 201213364770 A 20120202
- US 2013023591 W 20130129

Abstract (en)
[origin: WO2013116198A1] Methods of using nanohybrid-containing fluids in a well are provided. The methods include the steps of: (a) forming or providing a well fluid comprising a nanohybrid; and (b) introducing the well fluid into a well. The methods can be used in various applications, such as in drilling, completion, or intervention operations.

IPC 8 full level
C09K 8/40 (2006.01); **C09K 8/03** (2006.01); **C09K 8/38** (2006.01); **C09K 8/467** (2006.01); **C09K 8/60** (2006.01); **C09K 8/94** (2006.01); **E21B 43/22** (2006.01)

CPC (source: EP)
B82Y 30/00 (2013.01); **C04B 14/026** (2013.01); **C04B 28/02** (2013.01); **C09K 8/03** (2013.01); **C09K 8/58** (2013.01); **C09K 8/60** (2013.01); **C09K 8/602** (2013.01); **C04B 2103/40** (2013.01); **C04B 2111/00008** (2013.01); **C09K 2208/10** (2013.01)

C-Set (source: EP)

- C04B 28/02 + C04B 14/026 + C04B 40/0633**
- C04B 14/026 + C04B 20/023**

Citation (search report)

- [X] US 2007197401 A1 20070823 - ARCO MANUEL J [US], et al
- [XI] US 2010163234 A1 20100701 - FULLER MICHAEL J [US], et al
- [I] US 2008173451 A1 20080724 - REDDY B RAGHAVA [US], et al
- [I] EP 1634938 A1 20060315 - SCHLUMBERGER TECHNOLOGY BV [NL], et al
- [I] VILLAMIZAR L ET AL: "Interfacially active SWNT/Silica nanohybrid used in enhanced oil recovery", 17TH SPE IMPROVED OIL RECOVERY SYMPOSIUM 2010 (IOR 2010) : TULSA, OKLAHOMA, USA, 26 - 28 APRIL 2010, CURRAN, RED HOOK, NY, no. spe 129901, 26 April 2010 (2010-04-26), pages 1 - 11, XP002669976, ISBN: 978-1-61738-415-8
- [A] YEFEI WANG ET AL: "Surfactant induced reservoir wettability alteration: Recent theoretical and experimental advances in enhanced oil recovery", PETROLEUM SCIENCE, CHINA UNIVERSITY OF PETROLEUM (BEIJING), HEIDELBERG, vol. 8, no. 4, 8 December 2011 (2011-12-08), pages 463 - 476, XP019988547, ISSN: 1995-8226, DOI: 10.1007/S12182-011-0164-7
- See references of WO 2013116198A1

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

DOCDB simple family (publication)
WO 2013116198 A1 20130808; AU 2013215336 A1 20140619; AU 2013215336 B2 20150416; BR 112014019261 A2 20170620; BR 112014019261 A8 20170711; CA 2860793 A1 20130808; CA 2860793 C 20170418; EP 2809741 A1 20141210; EP 2809741 A4 20150729; MX 2014009377 A 20140827

DOCDB simple family (application)
US 2013023591 W 20130129; AU 2013215336 A 20130129; BR 112014019261 A 20130129; CA 2860793 A 20130129; EP 13744247 A 20130129; MX 2014009377 A 20130129