

Title (en)  
HELICAL WINDING OF INSULATED CONDUCTOR HEATERS FOR INSTALLATION

Title (de)  
SPIRALWINDUNG ISOLIERTER LEITERERHITZER FÜR INSTALLATIONEN

Title (fr)  
ENROULEMENT HÉLICOÏDAL D'ÉLÉMENTS CHAUFFANTS À CONDUCTEUR ISOLÉ POUR INSTALLATION

Publication  
**EP 2556208 A4 20140702 (EN)**

Application  
**EP 11766724 A 20110407**

Priority  
• US 32266410 P 20100409  
• US 2011031565 W 20110407

Abstract (en)  
[origin: WO2011127257A1] An insulated conductor heater may include an electrical conductor that produces heat when an electrical current is provided to the electrical conductor. An electrical insulator at least partially surrounds the electrical conductor. The electrical insulator comprises a resistivity that remains substantially constant, or increases, over time when the electrical conductor produces heat. An outer electrical conductor at least partially surrounds the electrical insulator.

IPC 8 full level  
**E21B 36/04** (2006.01); **H05B 3/40** (2006.01)

CPC (source: EP)  
**E21B 36/04** (2013.01); **H05B 3/40** (2013.01)

Citation (search report)  
• [XYI] WO 2006116078 A1 20061102 - SHELL OIL CO [US], et al  
• [YA] US 4979296 A 19901225 - LANGNER CARL G [US], et al  
• [A] US 2010038112 A1 20100218 - GRETHER MICHAEL F [US]  
• See references of WO 2011127272A1

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 2011127257 A1 20111013**; AU 2011237476 A1 20120927; AU 2011237476 B2 20150122; AU 2011237479 A1 20120927; AU 2011237479 B2 20150129; AU 2011237617 A1 20120920; CA 2793627 A1 20111013; CA 2793627 C 20190611; CA 2794569 A1 20111013; CA 2794689 A1 20111013; CN 102835185 A 20121219; CN 102835185 B 20151125; CN 102844520 A 20121226; CN 102844520 B 20160203; CN 102884279 A 20130116; CN 102884279 B 20160120; EP 2556208 A1 20130213; EP 2556208 A4 20140702; EP 2556210 A1 20130213; EP 2556210 A4 20140709; EP 2556721 A1 20130213; EP 2556721 A4 20140702; JP 2013524055 A 20130617; JP 2013524056 A 20130617; JP 2013524465 A 20130617; JP 5868942 B2 20160224; RU 2012147630 A 20140520; RU 2570508 C2 20151210; WO 2011127272 A1 20111013; WO 2011127275 A1 20111013

DOCDB simple family (application)  
**US 2011031543 W 20110407**; AU 2011237476 A 20110407; AU 2011237479 A 20110407; AU 2011237617 A 20110407; CA 2793627 A 20110407; CA 2794569 A 20110407; CA 2794689 A 20110407; CN 201180018269 A 20110407; CN 201180018299 A 20110407; CN 201180018322 A 20110407; EP 11766713 A 20110407; EP 11766724 A 20110407; EP 11766725 A 20110407; JP 2013503946 A 20110407; JP 2013503949 A 20110407; JP 2013503950 A 20110407; RU 2012147630 A 20110407; US 2011031565 W 20110407; US 2011031570 W 20110407