

Title (en)  
CARBON DIOXIDE-BASED GEOTHERMAL ENERGY GENERATION SYSTEMS AND METHODS RELATED THERETO

Title (de)  
SYSTEME ZUR ERZEUGUNG GEOTHERMALER ENERGIE AUF KOHLENDIOXIDBASIS UND ENTSPRECHENDE VERFAHREN

Title (fr)  
SYSTÈMES DE GÉNÉRATION D'ÉNERGIE GÉOTHERMIQUE À BASE DE DIOXYDE DE CARBONE ET PROCÉDÉS ASSOCIÉS À CEUX-CI

Publication  
**EP 2875089 A1 20150527 (EN)**

Application  
**EP 13745264 A 20130719**

Priority  
• US 201213554868 A 20120720  
• US 2013051379 W 20130719

Abstract (en)  
[origin: WO2014015307A1] A system comprises an injection well for accessing a reservoir containing a native fluid comprising at least one hydrocarbon, wherein the reservoir is located below one or more caprocks, is at a first temperature, and is accessible without using large-scale hydrofracturing. The system further includes a production well in fluid communication with the reservoir, a supply apparatus configured to feed a non-water based working fluid at a second temperature that is lower than the first temperature through the injection well to the reservoir, wherein the working fluid mixes with the native fluid to form a production fluid comprising at least a portion of the working fluid and at least a portion of the at least one hydrocarbon at a third temperature that is higher than the second temperature. An energy recovery apparatus is in fluid communication with the productions well, wherein energy contained in the production fluid is converted to electricity, heat, or combinations thereof, in the energy recovery apparatus.

IPC 8 full level  
**C09K 8/594** (2006.01); **E21B 43/16** (2006.01); **F01K 25/10** (2006.01); **F02C 1/00** (2006.01); **F02C 1/05** (2006.01); **F02C 1/10** (2006.01); **F02C 6/14** (2006.01); **F24J 3/08** (2006.01)

CPC (source: EP)  
**C09K 8/594** (2013.01); **E21B 43/164** (2013.01); **E21B 43/281** (2013.01); **F01K 25/103** (2013.01); **F02C 1/005** (2013.01); **F02C 1/05** (2013.01); **F02C 1/10** (2013.01); **F03G 7/04** (2013.01); **F24T 10/20** (2018.04); **F24T 2010/56** (2018.04); **Y02E 20/14** (2013.01); **Y02P 90/70** (2015.11)

Citation (search report)  
See references of WO 2014015307A1

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)  
**WO 2014015307 A1 20140123**; AU 2013292325 A1 20150305; CA 2879544 A1 20140123; CA 2879544 C 20190924; EP 2875089 A1 20150527

DOCDB simple family (application)  
**US 2013051379 W 20130719**; AU 2013292325 A 20130719; CA 2879544 A 20130719; EP 13745264 A 20130719