

Title (en)

METHOD AND DEVICE FOR OBTAINING USEFUL ENERGY FROM GEOTHERMAL HEAT

Title (de)

VERFAHREN UND EINRICHTUNG ZUR GEWINNUNG VON NUTZENERGIE AUS ERDWÄRME

Title (fr)

PROCÉDÉ ET DISPOSITIF POUR OBTENIR DE L'ÉNERGIE UTILE A PARTIR DE L'ÉNERGIE GÉOTHERMIQUE

Publication

**EP 3853533 A1 20210728 (DE)**

Application

**EP 19755388 A 20190821**

Priority

- EP 18190739 A 20180824
- EP 2019072331 W 20190821

Abstract (en)

[origin: CA3110280A1] The invention relates to a method for obtaining useful energy from geothermal heat, in which in a coaxial tube (1) introduced into the earth in a deep bore, having an outer tube (2) and an inner tube (3), in which in an end portion (4) of the coaxial tube (1) countersunk in the deep bore, outer tube (2) and inner tube (3) have a connection to one another, and a heat medium (8), which is liquid under standard conditions, is introduced into the outer tube (2), and flows in the direction of the end portion (4) of the coaxial tube (1) countersunk in the deep bore. The heat medium (8) is heated while absorbing geothermal heat and passes through a phase transition in the region of the end portion (4), and enters the inner tube (3) in gaseous form flowing upwards therein, up to an upper end of the coaxial tube that is located on the surface of the earth, wherein with the flowing, gaseous heat medium (8), a flow generator (14) for generating electrical energy is operated. By means of this method, kinetic energy of a flow of the gaseous heat medium generated by geothermal heat is converted very effectively and with little expenditure to obtain usable energy.

IPC 8 full level

**F24T 10/17** (2018.01)

CPC (source: EP US)

**F24T 10/17** (2018.05 - EP US); **Y02E 10/10** (2013.01 - EP)

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)

**EP 3614069 A1 20200226**; AU 2019323662 A1 20210408; CA 3110280 A1 20200227; CN 113039398 A 20210625; EP 3853533 A1 20210728; US 2021325090 A1 20211021; WO 2020038978 A1 20200227

DOCDB simple family (application)

**EP 18190739 A 20180824**; AU 2019323662 A 20190821; CA 3110280 A 20190821; CN 201980055590 A 20190821; EP 19755388 A 20190821; EP 2019072331 W 20190821; US 201917270085 A 20190821