

Title (en)

SOLAR BLACKBODY WAVEGUIDE FOR HIGH PRESSURE AND HIGH TEMPERATURE APPLICATIONS

Title (de)

SOLAR-SCHWARZKÖRPER-WELLENLEITER FÜR HOCHDRUCK- UND HOCHTEMPERATURANWENDUNGEN

Title (fr)

GUIDE D'ONDES A CORPS NOIR SOLAIRE POUR DES APPLICATIONS SOUS HAUTE PRESSION ET A HAUTE TEMPERATURE

Publication

**EP 1949007 A4 20100728 (EN)**

Application

**EP 06837095 A 20061107**

Priority

- US 2006043390 W 20061107
- US 27316605 A 20051114

Abstract (en)

[origin: WO2007058834A2] A solar blackbody waveguide (10) that captures and uses sunlight to heat a thermal heat transfer fluid. One or more systems of optical mirrors (18) provided on each tower (12) captures and concentrates the sunlight. Each system of optical mirrors (18) is movably mounted on its tower (12) to track the daily movement of the sun and to maintain the proper angle with the horizon throughout the year. Each system of optical mirrors (18) directs the light into an associated short light pipe (42) which delivers the light into a curved solar coil (44) contained within an enclosure (46). Energy from the light rays is absorbed by the solar coil (44) and transferred to thermal working fluid or heat transfer fluid (64) flowing between the solar coil (44) and the enclosure (46). The energy laden thermal heat transfer fluid (64) is gathered from a plurality of towers (12) for use with existing technologies, such as with a combined cycle gas turbine (22), boiler, or steam generator (102).

IPC 8 full level

**F24J 2/46** (2006.01); **F24S 10/95** (2018.01)

CPC (source: EP US)

**F02C 1/05** (2013.01 - EP US); **F03D 9/007** (2013.01 - EP); **F03G 6/064** (2013.01 - EP US); **F24S 10/25** (2018.04 - EP US); **F24S 20/20** (2018.04 - EP US); **F24S 23/00** (2018.04 - EP US); **F24S 23/79** (2018.04 - EP US); **F24S 30/452** (2018.04 - EP US); **F24S 50/20** (2018.04 - EP US); **F05B 2240/96** (2013.01 - EP US); **F24S 23/12** (2018.04 - EP US); **F24S 23/74** (2018.04 - EP US); **F24S 2023/88** (2018.04 - EP US); **F24S 2030/134** (2018.04 - EP US); **Y02E 10/40** (2013.01 - US); **Y02E 10/44** (2013.01 - EP US); **Y02E 10/46** (2013.01 - EP US); **Y02E 10/47** (2013.01 - EP US); **Y02E 10/72** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2007058834 A2 20070524; WO 2007058834 A3 20080117;** AU 2006315789 A1 20070524; EP 1949007 A2 20080730; EP 1949007 A4 20100728; US 2008184989 A1 20080807

DOCDB simple family (application)

**US 2006043390 W 20061107;** AU 2006315789 A 20061107; EP 06837095 A 20061107; US 27316605 A 20051114