

Title (en)
NON-ORTHOGONAL SOLAR HEAT COLLECTOR AND SOLAR ENERGY COGENERATION

Title (de)
NICHTORTHOGONALER SONNENWÄRMEKOLLEKTOR UND KRAFT-WÄRME-KOPPLUNG DURCH SOLARENERGIE

Title (fr)
COLLECTEUR DE CHALEUR SOLAIRE NON ORTHOGONAL ET COGÉNÉRATION D'ÉNERGIE SOLAIRE

Publication
EP 2745058 A4 20150408 (EN)

Application
EP 12865747 A 20120817

Priority
• CA 2750315 A 20110819
• CA 2012001205 W 20120817

Abstract (en)
[origin: CA2750315A1] In one aspect, a non-orthogonal solar heat collector is provided. The non-orthogonal solar heat collector comprises: a solar heat-absorbing element, a solar heat conducting/transferring element having a closed thermal connection with said solar heat-absorbing element, a solar heat converging element for converging solar heat transferred from said solar heat conducting/transferring element, a non-orthogonal angle included between a normal line of earth surface and an axis of said solar heat conducting/transferring element is larger than 95 degrees or less than 85 degrees, and a non-orthogonal angle included between a normal line of earth surface and an axis of said solar heat converging element is larger than 95 degrees or less than 85 degrees. In another aspect, there is provided a solar energy cogeneration system. Said solar energy cogeneration system is also called a combined solar heat and power that provides solar heat and electricity to customers simultaneously and locally. The solar heat cogeneration system comprises: a non-orthogonal solar heat collector, a turbine driven by fluid pressure, a turbine shaft turning generator, a generator producing electricity through the movement of the rotor in the stator, a fluid inlet, and a fluid outlet. The pressure driven turbine is from a medium selected from a group of water, steam, air and a combination of them.

IPC 8 full level
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F03G 6/065 (2013.01 - EP US); **F24S 10/45** (2018.04 - EP); **F24S 60/00** (2018.04 - EP US); **F24S 60/10** (2018.04 - EP US); **F24S 60/30** (2018.04 - EP US); **F24S 80/30** (2018.04 - EP); **Y02E 10/44** (2013.01 - EP); **Y02E 10/46** (2013.01 - EP)

Citation (search report)
• [XYI] WO 2011080038 A2 20110707 - SIEMENS AG [DE], et al
• [XYI] DE 102007013430 A1 20080918 - DEUTSCH ZENTR LUFT & RAUMFAHRT [DE]
• [XYI] US 2011127773 A1 20110602 - FREUND SEBASTIAN WALTER [DE], et al
• [Y] WO 2010138835 A2 20101202 - GMZ ENERGY INC [US], et al
• See references of WO 2013106901A1

Designated contracting state (EPC)
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