

Title (en)
ADVANCED CAVITY RECEIVERS FOR PARABOLIC SOLAR TROUGHS

Title (de)
EMPFÄNGER MIT FORTGESCHRITTENER RESONANZ FÜR PARABOLISCHE SOLARRINNEN

Title (fr)
RÉCEPTEURS À CAVITÉ PERFECTIONNÉS POUR MIROIRS CYLINDRO-PARABOLIQUES

Publication
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Application
EP 14870350 A 20141211

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- US 201462078742 P 20141112
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Abstract (en)
[origin: WO2015089273A1] A heat-absorbing element partly enclosed in an insulating layer or jacket, has absorbing surface that is accessible to solar radiation. The thermal insulation is designed to provide entry to solar radiation by way of a cavity. In cross-section, the insulation jacket has approximately the form of a letter "C" or "U" oriented so that the opening of the "C" or "U" faces toward a parabolic collector that focuses light thereon. The absorbing surface can be substantially planar (i.e., flat) rather than another shape (for example, in one embodiment, an arc) which reduces the absorbing surface's area for a given aperture width. This reduces the area that can re-radiate heat energy away from the heat absorbing element. The heat absorbing element is supported so that its distance relative to the parabolic collector does not change as the heat absorbing element expands upon heating and contracts upon cooling.

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Citation (search report)

- [XYI] US 2013220307 A1 20130829 - STETTENHEIM JOEL [US], et al
- [XY] WO 2011121574 A2 20111006 - RONDA HIGH TECH SRL [IT], et al
- [Y] US 2011067692 A1 20110324 - DOPP KIP H [US], et al
- [A] US 3869199 A 19750304 - CUMMINGS RICHARD D
- [A] US 2011168161 A1 20110714 - CAPAN RAHMI OGUZ [TR]
- [A] US 2011214668 A1 20110908 - AL-ANSARY HANY ABDULRAHMAN M [SA], et al
- [A] GB 2282442 A 19950405 - DYCK FRANS SERAPHINA JOSEPH VA [BE]
- [A] US 2006207590 A1 20060921 - LEVIN ALEXANDER [IL]
- [A] US 4333447 A 19820608 - LEMROW CRAIG M, et al
- See references of WO 2015089273A1

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