

Title (en)

Composite solid state semiconductive material for generating electro-magnetic radiation and use of said material in an infrared heating device

Title (de)

Festkörper-Verbundhalbleiternmaterial zur Erzeugung elektromagnetischer Strahlung und Verwendung dieses Materials für eine Infrarotwärmvorrichtung

Title (fr)

Matériau semi-conducteur composite à l'état solide pour générer un rayonnement électro-magnétique et utilisation dudit matériau dans un dispositif de chauffage à infrarouge

Publication

**EP 1937033 A1 20080625 (EN)**

Application

**EP 06077224 A 20061221**

Priority

EP 06077224 A 20061221

Abstract (en)

The invention relates to a composite material in which electro-magnetic radiation is generated by applying an electric field across said material, whereby said material contains at least an electrically conductive component, as well as a component that generates radiation under influence of an applied electric field, and a component acting as a lens on the generated radiation. Said composite material is thereby characterised by the fact that trivalent ytterbium or a compound of trivalent ytterbium is another component that is present in the composite material and acts as an amplifier for the radiation that is generated in the material.

IPC 8 full level

**H05B 6/00** (2006.01)

CPC (source: EP)

**H05B 6/105** (2013.01)

Citation (search report)

- [X] EP 1117273 A2 20010718 - SUMITOMO ELECTRIC INDUSTRIES [JP]
- [A] EP 0741501 A1 19961106 - VORONKOVA ZINAIDA PETROVNA [RU]
- [A] DE 10345109 A1 20050504 - IBT INFRABIO TECH GMBH [DE]
- [A] WO 9942141 A1 19990826 - RAKHIMOV RUSTAM [UZ]

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

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

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