

Title (en)

TERAHERTZ RADIATION SOURCE AND METHOD FOR PRODUCING TERAHERTZ RADIATION

Title (de)

TERAHERTZSTRÄHLUNGSQUELLE UND VERFAHREN ZUR ERZEUGUNG VON TERAHERTZSTRÄHLUNG

Title (fr)

SOURCE DE RAYONNEMENT TÉRAHERTZ ET PROCÉDÉ POUR GÉNÉRER UN RAYONNEMENT TÉRAHERTZ

Publication

EP 2324389 A1 20110525 (DE)

Application

EP 09779681 A 20090609

Priority

- EP 2009057072 W 20090609
- DE 102008041107 A 20080807

Abstract (en)

[origin: WO2010015443A1] The present invention relates to a terahertz radiation source comprising a pulsed femtosecond fiber laser (1), a pulse shaper (2), an optical amplifier (3) and a nonlinear crystal (4), wherein the laser (1), pulse shaper (2), optical amplifier (3) and nonlinear crystal (4) are adapted and/or disposed in such a way that a laser pulse I, II, III, IV produced by the laser (1) first passes through the pulse shaper (2), then the optical amplifier (3) and then the nonlinear crystal (4); an imaging and/or spectroscopy system; a method for generating terahertz radiation; a method for detecting and/or examining life forms, objects and materials using such a system; and use of such a source and such a system.

IPC 8 full level

G02F 1/35 (2006.01)

CPC (source: EP US)

G01N 21/3581 (2013.01 - EP US); **G01V 8/005** (2013.01 - EP US); **G02F 1/3534** (2013.01 - EP US); **G01S 13/887** (2013.01 - EP US);
G02F 2203/13 (2013.01 - EP US)

Citation (search report)

See references of WO 2010015443A1

Designated contracting state (EPC)

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 SE SI SK TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

DE 102008041107 A1 20100211; CN 102119359 A 20110706; EP 2324389 A1 20110525; JP 2011530092 A 20111215;
RU 2011108214 A 20120920; US 2011121209 A1 20110526; WO 2010015443 A1 20100211

DOCDB simple family (application)

DE 102008041107 A 20080807; CN 200980130503 A 20090609; EP 09779681 A 20090609; EP 2009057072 W 20090609;
JP 2011521495 A 20090609; RU 2011108214 A 20090609; US 200913055659 A 20090609