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Patent Number(s): DE102010049658-A1; WO2012055574-A1
Title: System for generating and coherent detection terahertz radiation used in telecommunication application, has photosensitive active layer whose band edge wavelength is greater than wavelength the laser light source
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Abstract: NOVELTY - The terahertz system has a laser light source (1) that is coupled with a transmitting antenna (2) and a receiving antenna (3) through an optical fiber (5). Each antenna has antenna conductors, photosensitive active layer and bordering layer. The band edge wavelength photosensitive active layer is 150 nm greater than wavelength the laser light source. The band edge wavelength bordering layer is smaller than the wavelength the laser light source.
USE - System for generating and coherent detection terahertz radiation used in telecommunication application.
ADVANTAGE - Since the band edge wavelength photosensitive active layer in antennas is greater than wavelength the laser light source, the transmitting efficiency transmitting antenna and receiving efficiency receiving antenna are improved. The coherent detection terahertz radiation can be performed easily with high precision.
DESCRIPTION DRAWING(S) - The drawing shows the schematic view the system for generating and coherent detection terahertz radiation.
Laser light source (1)
Transmitting antenna (2)
Receiving antenna (3)
Beam splitter (4)
Optical fiber (5)
Drawing:
Derwent Class Code(s): S03 (Scientific Instrumentation, photometry, calorimetry); V07 (Fibre-optics and Light Control); V08 (Lasers and Masers)
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