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Patent Number(s): JP2012161734-A

Title: Terahertz wave-processing of substance e.g. plant and animal, involves activating target substance using incoherent terahertz wave generated by radiator containing copper, semimetal and/or semiconductor, with fluctuation electric field

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Derwent Primary Accession No.: 2012-L29942

Abstract: NOVELTY - A fluctuation electric field or a fluctuation electric potential is applied to radiator (3) containing ceramic, copper, metal, semimetal and/or semiconductor as main component. Incoherent terahertz wave having wavelength of 3-1000 μ m generated by radiator with the fluctuation electric potential or fluctuation electric field is directly or indirectly irradiated to target substance or image of target substance. The incoherent terahertz wave activates or modifies the target substance. Thus, terahertz wave-processing of substance is carried out.

USE - Terahertz wave-processing of substance e.g. plant, animal, human being, mountain, valley, pond, lake, river, paddy field, ceramic, fiber, paper, rubber, resin, cement, timber, glass, building material used for constructing road and bridge, computer, mobile telephone, battery, transformer, electronic component, electric material, domestic electrical appliance, heater, air-conditioner, communication apparatus, medical device, foodstuff, noble metal, body ornament, cosmetics, pharmaceutical and quasi-drug (all claimed).

ADVANTAGE - The method enables activation or modification of the target substance existing in remote place.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic view of the apparatus used for terahertz wave-processing of substance. (Drawing includes non-English language text)

Substance-processing apparatus (1)

Display unit (2)

Radiator (3)

Production unit (4)

Processing unit (41)

Derwent Class Code(s): A97 (Miscellaneous goods not specified elsewhere); D13 (Other foodstuffs and treatment); J04 (Chemical/physical processes and apparatus including catalysis); L03 (Electro-(in)organic, chemical features of electrical devices); D21 (Preparations for dental or toilet purposes); P13 (Plant culture, dairy products); P14 (Animal care); P34 (Sterilising, syringes, electrotherapy); S03 (Scientific Instrumentation, photometry, calorimetry); T01 (Digital Computers); W01 (Telephone and Data Transmission Systems); X25 (Industrial Electric Equipment); X27 (Domestic Electric Appliances)

Derwent Manual Code(s): A11-C04E; D03-H01T2B; J04-X; L03-H03A; L03-H04A; S03-E05; T01-J06A; T01-J21C; T01-L01; T01-L02; T01-M06A1; W01-C01D3C; W01-C01E5B; X25-N01; X27-E01B

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