

Title (en)
OPTICAL MICROWAVE SOURCE

Title (de)
OPTISCHE MIKROWELLENQUELLE

Title (fr)
SOURCE DE MICRO-ONDES OPTIQUE

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Application
EP 02798257 A 20021129

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Abstract (en)
[origin: WO03049242A2] The aim of the invention is the disclosure of a simple, tuned monolithic integrated component for the generation of optical microwaves in the frequency range of from 0.5 GHz to the THz range. Said aim is achieved by means of an optical microwave source, embodied as a multi-section semiconductor laser, the sections of are embodied such as to be independently electrically controlled, with a single mode DFB laser (1), driven above the laser threshold and at least one monolithic integrated (external) cavity, comprising a passive phase control section (2) and an active section (3). The multisection laser is defined by two facets, of which at least one has a reflectivity of > 0. Passive (2) and active (3) sections are connected to the DFB section (1) by means of a common waveguide (WL), the active sections (3) comprising means for amplification and the passive sections (2) comprising means for changing the phase position of waves returning into the multisection semiconductor laser.

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