Title (en)
DISLOCATION-BASED LIGHT EMITTER WITH AN MIS STRUCTURE

Title (de)
VERSETZUNGSBASIERTER LICHTEMITTER MIT MIS-STRUKTUR

Title (fr)
ÉMETTEUR DE LUMIÈRE À BASE DE DÉCALAGE À STRUCTURE MIS

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EP 2030252 A1 20090304 (DE)

Application
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Abstract (en)
[origin: WO2007138078A1] Light-emitting semiconductor component (600) having a substrate (S, 200) which has a first interface between a first silicon layer (100) and a second silicon layer (102), whose grating structures which are thought to be ideal are rotated through an angle of rotation relative to one another about a first axis (118) which is perpendicular to the surface of the substrate and are tilted through a tilt angle about a second axis which is parallel to the surface of the substrate (108) in such a manner that there is a dislocation network (D) in the region of the interface, wherein the angle of rotation and the tilt angle are selected in such a manner that an electroluminescence spectrum of the semiconductor component (600) has an absolute maximum of the emitted light intensity at a wavelength of either 1.3 micrometres or 1.55 micrometres.

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