

Title (en)

LIGHT EMITTING SEMICONDUCTOR DEVICE

Title (de)

LICHTEMISSIONS-HALBLEITEREINRICHTUNG

Title (fr)

DISPOSITIF SEMI-CONDUCTEUR A EMISSION DE LUMIERE

Publication

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Application

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Abstract (en)

[origin: DE19819543A1] The invention relates to a bicolour light emitting semiconductor device with both a first surface-emitting light emitting diode (10) consisting of a first active area (11) and emitting a first wavelength radiance, and a second surface-emitting light emitting diode (20) with a second active area (21) emitting a second wavelength radiance, whereby a first reflecting layer (12) is arranged between both active areas (11,21). Said reflecting layer reflects the first wavelength and transmits the second wavelength. A second reflecting layer (22) is arranged between the second active area (21) and the rear side, whereby said reflecting layer reflects the second wavelength. The reflecting layers result in better utilization of the light from both diodes radiated in the direction of the rear side. Preferably, the reflecting layers are made of a multilayer system consisting of layers that have an alternately high and low refractive index. Preferably, the layers are made from a grid-adapted semiconductor material.

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