

Title (en)

THIN-LAYER LIGHT-EMITTING DIODE CHIP AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

DÜNNSCHICHT-LEUCHTDIODENCHIP UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

PUCE DE DIODE ELECTROLUMINESCENTE A MINCE COUCHE ET SON PROCEDE DE PRODUCTION

Publication

EP 1658644 A2 20060524 (DE)

Application

EP 04762694 A 20040819

Priority

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- DE 10340271 A 20030829

Abstract (en)

[origin: WO2005024962A2] A thin-layer light-emitting diode chip (5) comprising a sequence of epitaxial layers (6) which are arranged on a carrier element (2) and which are provided with an active area (8) producing electromagnetic radiation, in addition to a reflecting layer (3) which is arranged on a main surface of the sequence of epitaxial layers (6) oriented towards the carrier element (2) and which reflects at least one part of the electromagnetic radiation produced in the sequence of epitaxial layer (6) back to said layer, wherein a structured layer (1) is arranged on a radiation decoupling surface (7) of the epitaxial layer facing away from the carrier element (2), said structured layer containing glass material and being provided with structuring which comprises projections (5) which are tapered in the direction of the radiation decoupling surface (7) and which have a lateral grid size which is smaller than the wavelength of electromagnetic radiation emitted from the sequence of epitaxial layers (6). The structured layer (1) is advantageously applied as spin-on glass and is structured by grey tone lithography.

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IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 2005024962A2

Citation (examination)

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