

Title (en)
OPTOELECTRONIC COMPONENT

Title (de)
OPTOELEKTRONISCHES BAUELEMENT

Title (fr)
COMPOSANT OPTOÉLECTRONIQUE

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Application
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• DE 2008001514 W 20080910
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• DE 102007049799 A 20071017

Abstract (en)
[origin: WO2009039826A1] An optoelectronic component comprising the following features is disclosed: - at least one semiconductor body (1) provided for emitting electromagnetic radiation from a first wavelength range, - an inner radiation-transmissive shaped body (2), into which the semiconductor body (1) is embedded, - a wavelength-converting layer (6) on an outer side (5) of the inner shaped body (2), said layer comprising a wavelength conversion substance (8) suitable for converting radiation from the first wavelength range into radiation from a second wavelength range, which is different from the first wavelength range, - a coupling-out lens (10), into which the inner shaped body (2) and the wavelength-converting layer (6) are embedded, wherein - the coupling-out lens (10) has an inner side enclosed by an inner hemisphere area having a radius $R_{conversion}$, and an outer side enclosing an outer hemisphere area having a radius R_{outer} , and the radii $R_{conversion}$ and R_{outer} meet the Weierstrass condition: $R_{outer} = R_{conversion} * n_{Lens}/n_{air}$, where n_{Lens} is the refractive index of the coupling-out lens and n_{air} is the refractive index of the surroundings of the coupling-out lens.

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Citation (search report)
See references of WO 2009039826A1

Citation (examination)
• US 2004227149 A1 20041118 - IBBETSON JAMES [US], et al
• US 6635363 B1 20031021 - DUCLOS STEVEN JUDE [US], et al
• US 6472765 B1 20021029 - SANO TAKESHI [JP], et al

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