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Plößl

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(54) **METHOD FOR PRODUCING AN OPTOELECTRONIC SEMICONDUCTOR CHIP AND OPTOELECTRONIC SEMICONDUCTOR CHIP**

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CPC ... H01L 33/007; H01L 33/32; H01L 33/0095; H01L 2933/0033; H01S 5/343;
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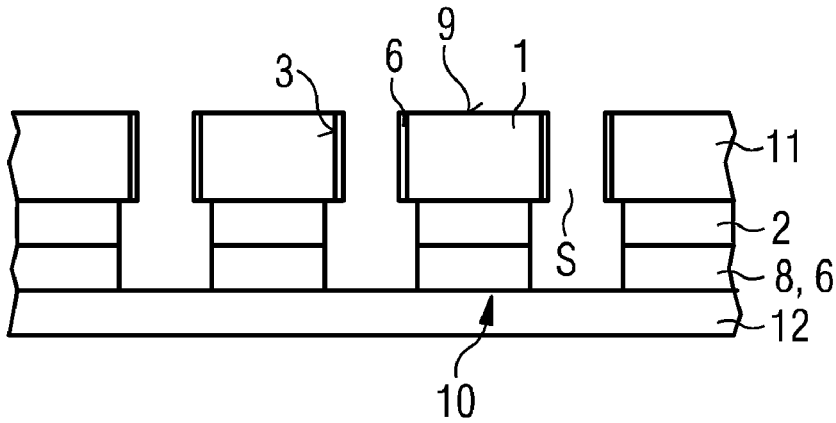
(57) **ABSTRACT**

In at least one embodiment, a method is designed to produce optoelectronic semiconductor chips. A carrier assembly, which is a sapphire wafer, is produced. A semiconductor layer sequence is applied to the carrier assembly. The carrier assembly and the semiconductor layer sequence are divided into the individual semiconductor chips. The dividing is implemented by producing a multiplicity of selectively etchable material modifications in the carrier assembly in separation region(s) by focused, pulsed laser radiation. The laser radiation has a wavelength at which the carrier assembly is transparent. The dividing includes wet chemically etching the material modifications, such that the carrier
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