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(54) **TEXTURED LUMIPHORE LAYER TO IMPROVE LIGHT EXTRACTION FOR LIGHT-EMITTING DIODE CHIPS AND RELATED METHODS**

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(57) **ABSTRACT**

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The present disclosure relates to solid-state lighting devices including light-emitting diodes (LEDs) and more particularly to light-extraction features for LED chips and packages and methods of forming the light-extraction features on a cover structure over the LED chip to improve light extraction from the LED chip. A number of sublayers that are embedded with lumiphoric materials can be pressed in a mold that includes texturing that imprints the light-extraction features in the sublayers. The sublayers can then be baked to form a cover structure that can be placed over the LED chip. In other embodiments, the sublayers can be baked to form the cover structure, which can then be heated to above a transition temperature of the cover structure, then pressed in a textured mold to form the light-extraction features, and then placed over the LED chip.

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