

Title (en)
PHOSPHOR PARTICLE COATING

Title (de)
PHOSPHORPARTIKELBESCHICHTUNG

Title (fr)
REVÊTEMENT DE PARTICULES DE LUMINOPHORE

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Application
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Abstract (en)
[origin: WO2022006048A1] The invention provides a method for providing a luminescent particle (100) with a hybrid coating, the method comprising: (i) providing a luminescent core (102) comprising a primer layer (105) on the luminescent core (102); (ii) providing a main ALD coating layer (120) onto the primer layer (105) by application of a main atomic layer deposition process, the main ALD coating layer (120) comprising a multilayer (1120) with two or more layers (1121) having different chemical compositions, and wherein in the main atomic layer deposition process a metal oxide precursor is selected from a group of metal oxide precursors comprising Al, Zn, Hf, Ta, Zr, Ti, Sn, Nb, Y, Ga, and V; (iii) providing a main sol-gel coating layer (130) onto the main ALD-coating layer (120) by application of a main sol-gel coating process, the main sol-gel coating layer (130) having a chemical composition different from one or more of the layers (1121) of the multilayer (1120).

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