

Title (en)

LOW-LOSS OPTICAL MATERIALS AND PROCESSES

Title (de)

OPTISCHE MATERIALIEN UND VERFAHREN MIT GERINGEM VERLUST

Title (fr)

MATÉRIAUX ET PROCÉDÉS OPTIQUES À FAIBLE PERTE

Publication

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Application

EP 22721224 A 20220415

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Abstract (en)

[origin: WO2022221662A1] An optical device includes a substrate, a first surface-relief grating including grooves and ridges formed on or in the substrate, a first overcoat layer in the grooves of the first surface-relief grating, and a first antireflective layer on the first overcoat layer. The ridges of the first surface-relief grating include high-refractive index, photoactive metal oxide nanoparticles and a material of the first overcoat layer in regions between the metal oxide nanoparticles, or the first overcoat layer includes the metal oxide nanoparticles and a material of the first antireflective layer in regions between the metal oxide nanoparticles. Methods of fabricating the optical device are also described.

IPC 8 full level

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