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Preparation and optical properties of nanocrystalline diamond coatings for infrared planar waveguides

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Abstract

The high index of refraction planar optical waveguides operating in the near infrared spectrum were prepared from the intrinsic hydrogenated amorphous silicon (a-Si:H) layer coated by nanocrystalline diamond (NCD). The a-Si:H layers were grown by radio frequency plasma enhanced chemical vapor deposition on glass substrates from silane and hydrogen

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