

S1-3.21**Properties of Carbazole-based Azopolymer Used in Formation of Photoinduced Surface Relief Gratings**

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New carbazole-based azopolymer was synthesized, characterized and applied for formation of photoinduced surface relief gratings. The surface modulation of spin-coated azopolymer film depending on the different polarization configurations is considered. It is shown that holographic surface relief gratings with relatively large amplitude could be obtained by direct one-step holographic recording without any subsequent processing steps. Right and left orthogonal circular polarization configuration is the best case, which allows to achieve surface relief grating with the largest amplitude up to 50% of original film thickness.