

OPTICAL ELEMENTS FOR IR SPECTRAL
REGION ON THE BASE OF ChVS LAYERS

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In this paper, the fabrication of optical elements for the IR spectral region on the base of As_{100-x}S_x films is considered. The peculiarities of the selective etching processes of As_{100-x}S_x films in amine-based etching solutions are considered. The transmitting diffraction gratings with the diffraction efficiency in the first order of ~ 23% for a grating period of 6 μm were obtained. Matrices of refractive microlenses with the diameter of a single lens of ~ 12 μm were obtained by the contact printing using halftone masks. The obtained results enable to consider As_{100-x}S_x layers as perspective relief forming media for the fabrication of various optical elements in the IR spectral region.