

Multilayer interference coatings on the basis of the layers of silicon and dioxide of silicon on the thinning InSb FPA with increased mechanical strength and reproducibility

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The paper considers the methods of increasing in mechanical strength and reproducibility in the construction of the two-spectral of the thinning InSb FPA by means of spraying of multilayer interference coatings on the basis of the layers of silicon and dioxide of silicon. The results of the simulation of the distribution of mechanical stresses and suppression of errors in the optical thickness of the antireflecting coatings with different quantity of layers are represented. Are obtained the experimental samples of two-spectral FPA, the confirmatory results of simulation.

Keywords: Focal Plane Array (FPA), indium antimonide, silicon, silicon dioxide, multilayer interference coatings, strength, reproducibility, the simulation.

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