Design of fine spectral DOEs

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Abstract:

This paper considers phase diffraction optical elements (DOEs) that function at different wavelengths of the illuminating beam. Typically, DOEs are produced for the beam of a specific wavelength (the height of the microrelief is strictly related to the beam wavelength). Light with other wavelengths will form a distorted picture when getting through the DOE. The necessity to use monochromatic light limits the applications of DOE.

Keywords: diffraction optical elements, spectral DOEs, monochromatic light

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