

JEMNÁ MECHANIKA A OPTIKA

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The article is focused on the problem of image quality evaluation of real optical systems. Formulas were described for an optimum correction of spherical aberration and a position of the optimal image plane. Formulas were also derived for the calculation of an “optimum f-number” of a given optical system when a real optical system with aberrations is practically comparable to a diffraction limited optical system. This optimum f-number may serve as an auxiliary criterion of image quality of the optical system. Keywords: f-number, image quality, spherical aberration, Strehl definition, optimal image plane	
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Local anodic oxidation lithography is a method that can change the surface of (semi)conductive sample in routine laboratory conditions. Increased humidity in the near vicinity of the sample is the only requirement. Mainly the tip sharpness but also many other parameters indicate the size of oxidation trace. Height and smooth of the trace is inversely proportional to the speed. It turns out that set up of the system is less problematic than sample itself. In the case of silicon, easy oxidation prohibits the formation of intended oxide layer by local oxidation. Keywords: AFM, oxidation lithography, oxidation trace	
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