

The monochromical one-component immersion aspheric lens for recording and information read-out comprises a single lens which the first surface is aspheric, and the last, inversed in image space, is flat one. Between the lens and the image space there is immersion medium and lens parameters are satisfying to the following conditions:

$$D/2 \leq 1.7$$

$$0.60 < n_1 - 2r_1/f' < 0.65$$

$$1.3 < D/f' < 1.35$$

where D – the entrance pupil diameter;

n_1 – the refraction index of a lens material;

r_1 – the paraxial curve radius of aspheric space;

f' – the rear focal lens distance in total.