

foXXus_0.015-0.047_NA0.8



Objectives of patent pending design with multiple foci

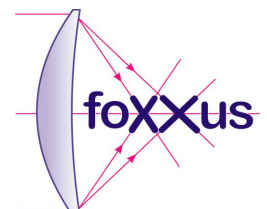
Applications:

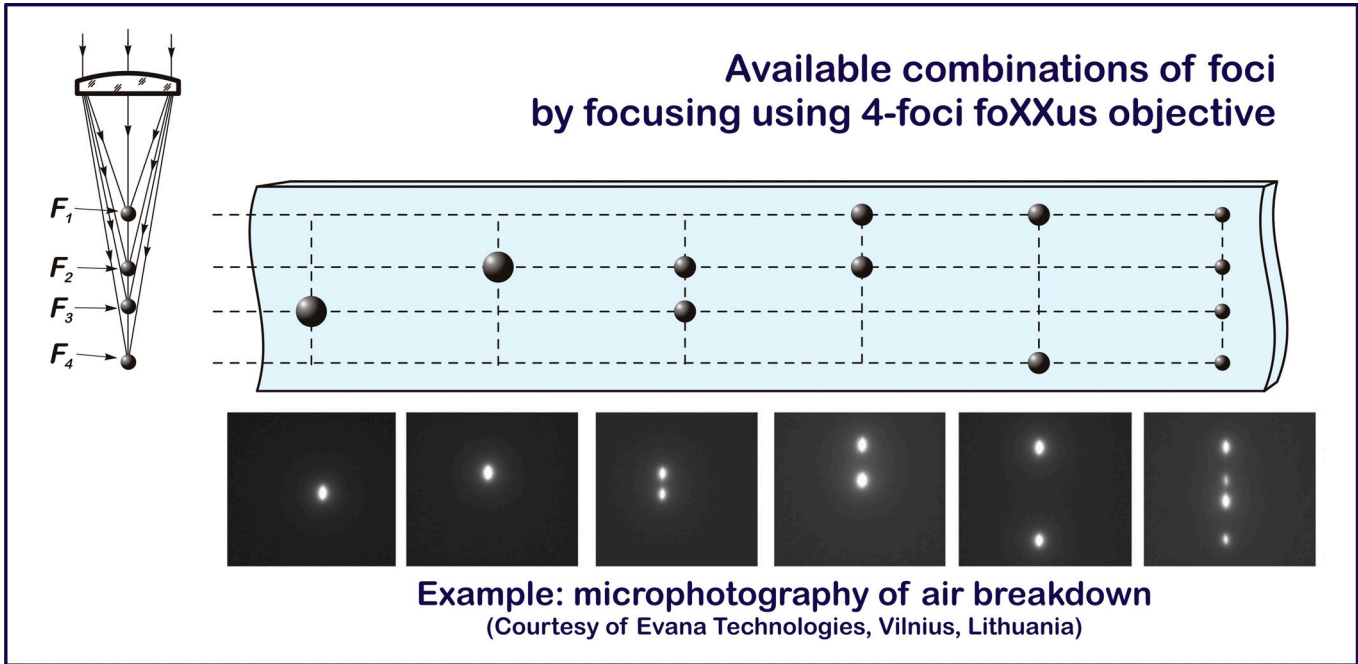
- Glass Cutting
- Cutting of Sapphire, SiC



| Description | | Objective lens with multiple foci | |
|--|---------------------------------|---|------------------|
| ΔF , μm | air | 2 foci: 15, 47 | 4 foci: 16-15-16 |
| | Glass (x1.5) | 2 foci: 24, 72 | 4 foci: 24-24-24 |
| | Al_2O_3 (x1.76) | 2 foci: 28, 86 | 4 foci: 29-28-29 |
| Beam full diameter, mm | | 12.9 | |
| Numerical aperture (NA) | | 0.8 | |
| Focal length (F), mm | | 8.1 | |
| Working Distance, mm | | 1.0 | |
| Spectral band, nm | | _1064: 1020 - 1100 _532: 510 - 550 other wavelengths on request | |
| 2 ω , μm waist in air | 1064 nm | 1.1 | |
| | 532 nm | 0.6 | |
| Angular field | | $\pm 1^\circ$ | |
| Recommended maximum pulse energy | | 25 mJ at 5 ns | |
| Mounting | | C-Mount (1"-32 UN 2A) | |
| Diameter, mm | | 39 | |
| Length, mm | | <44.5 | |

Specifications are subject to change without notice





Comments:

- ΔF in material is n times larger than in air, where n is refractive index of the material:
 - $n \cong 1.76$ for sapphire,
 - $n \cong 1.5$ for glass,
- the foXXus objectives create 1, 2 or 4 foci along the optical axis,
- compensation of spherical aberration induced by focusing inside bulk material,
- the crack inside material is typically longer than ΔF defined by optical design,
- Denomination: foXXus_0.015-0.047_NA0.8_1064

ΔF in air, mm _____
 Numerical aperture _____ Wavelength, nm _____

