Lumicks C-Trap

Technical Specifications

- Quadruple (4) optical traps
- Can apply forces in the 0.1-1000 pN range
- Stable force clamping achievable at >0.5 pN
- Sub-nm and sub-ms spatial temporal resolution
- Single-photon sensitivity
- Confocal imaging
- 3 excitation lasers – 488nm, 561nm, and 638nm
- Corresponding bandpass filters - 525/45, 600/50, and 680/42
- 5-channel microfluidics
- Temperature control (heating only)
- Data acquisition can be automated via Lumicks' Bluelake software
- In-house Python scripts for processing and analysing acquired data (including object tracking, calculation of diffusion coefficients and quantification by photobleaching analysis) are available in addition to Lakeview software written by Lumicks.

Lenses

Lens	Numerical aperture	Working distance (mm)	Immersion	Features
Nikon CFI Plan Apo VC 60XWI	1.2	0.28-0.31	Water	Correction collar for coverslip thickness (0.15-0.18mm)