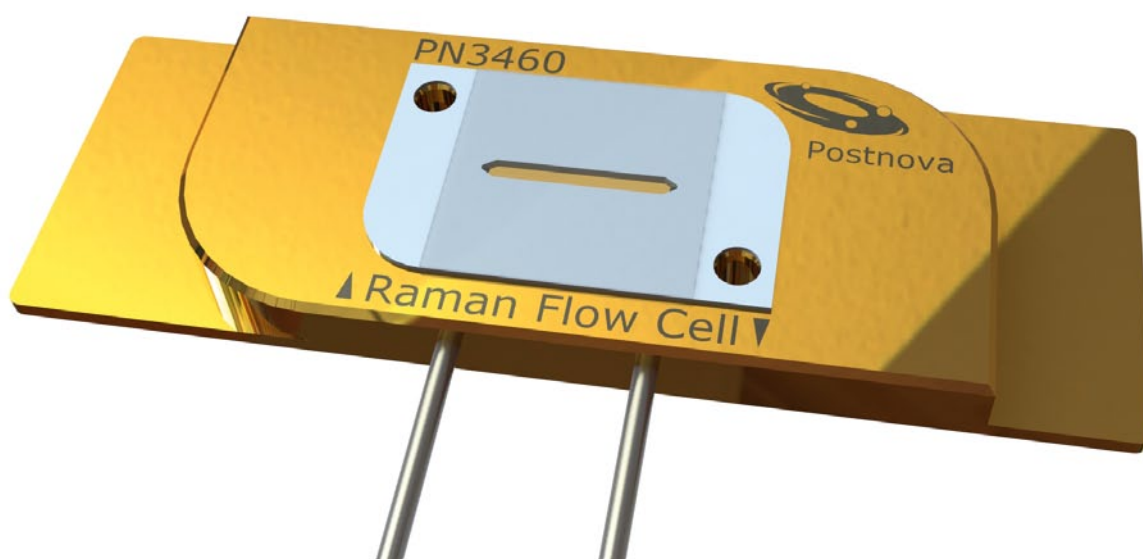


PN3460 Raman Flow Cell

Advanced FFF Interface for Raman Microscopy



PN3460 Raman Flow Cell

Features

The Postnova PN3460 Raman Flow Cell enables the online hyphenation of all liquid sample systems and especially Field-Flow Fractionation combined with Raman Microscopy for high-resolution separation and chemical identification of particles in the size range of 200 nm to 50 μm . It is particularly useful for the analysis of micro- and nanoplastic particles.

The Postnova PN3460 Raman Flow Cell has been validated with the WITec Alpha 300 access confocal Raman microscope, but is also compatible with instruments from other manufacturers. Please check with Postnova for details.

Recommended Objective:

Olympus Water Immersions Objective LUMPLFLN40XW (W.D. 3.3, Mag 40, OFN 26.5, NA 0.8, IM water).

Any other compared objectives would be possible too. Please check with Postnova for details.

Operating Principle

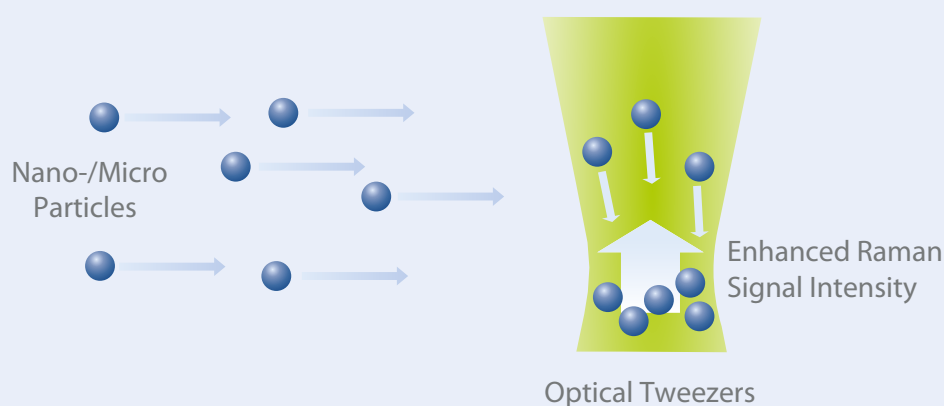
By trapping the particles in the focus of the Laser of the Raman Microscope after eluting from the FFF-channel, the PN3460 Raman Flow Cell takes advantage of the remarkable physical principle behind "Optical Tweezers" (2018 Nobel Prize in Physics).

This powerful feature leads to an accumulation of the particles in a narrow area within the Raman Flow Cell thereby significantly enhancing signal intensity and thus the sensitivity of the Raman analysis.

Field-Flow Fractionation Raman Spectroscopy

- Size Separation
- Size Information

- Chemical Information



Ordering Information

Z-DET-3460-001

PN3460 Raman Flow Cell

Specifications

- Maximum particle size: 50 μm
- Solvent Compatibility: In principle any kind of liquid phase can be used within typical viscosity levels.
- Minimum particle size: 200 nm polystyrene (depending on conditions and material)
- Flow channel dimension (LxWxH): 13 mm x 1.5 mm x 0.35mm
- Flow Cell Dimension: 76 mm x 26 mm x 1 mm fully compatible with standard microscope in compliance with DIN ISO 8037-1
- Flow channel volume: approx. 6.75 μL
- Flow rates: 0.1 mL/min up to 1.5 mL/min
- Wetted parts: Gold 999, Titanium, Stainless Steel 316, Mylar, Glas, Peek/SS
- Connections: 2 x 10-32 UNF High Pressure for 1/16 Tubes
- Maximum Pressure: 0.5 bar
- Total weight: approx. 80 g

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