Highly Nonlinear Multimode Mid Infrared Fibers

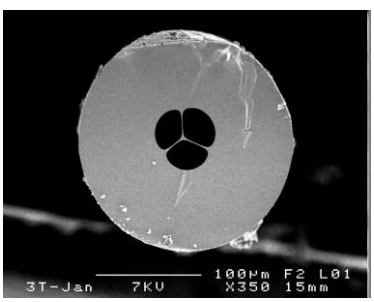
Advantages

- Highly NonLinear
- Low losses transmission up to 8.5 µm
- Core diameter and dispersion can be adjusted

Applications

- Supercontinuum generation
- Wavelength Conversion

Specifications



Reference	AsSe Suspended Core
Glass	$As_{38}Se_{62}$
Refractive Index @1.55µm	2.81
Nonlinear Refractive index n_2 (m^2/W)	≈$1.1*10^{-17}$ (≈500*n_2 silica)
Brillouin Gain, gB (W/m)	≈$5.5.10^{-9}$ (≈130*gB silica)
Operating Range (µm)/Guiding Regime	1.5-8.5 (Multimode) (possibility to extend the transmission up to 10µm
Typical Attenuation (dB/m)	Equivalent to AsSe SM2
Typical Core Diameter (µm)	4
Typical Cladding Diameter (µm)	200
Typical Numerical Aperture	>0.7
Zero Dispersion Wavelength (µm)	<3.5
Possible Customized specifications	-Core diameter can be adjusted in the [2-7] µm range - Transmission can be upgraded up to 10 µm

Reference:

- **Uffe Mollet et Al; « Multi-milliwatt mid-infrared supercontinuum generation in a suspended core chalcogenide fiber »; Optics Express, Vol.23, N°3, 2015.**

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