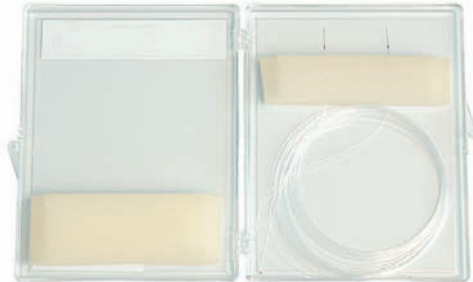


# SNOM probes and accessories

## SNOM probes



### Probe specification:

Material	Single mode optical fiber Nufern
Tip coating	Vanadium (20 nm) / aluminum (70 nm).
Tip aperture	50/100 nm
Diameter uncoated by Al	~100 nm
Tip curvature radius	25-30 degrees
Tip angler	400 microwatt
Maximum optical input power	Chemical etching*
Sharpening method	

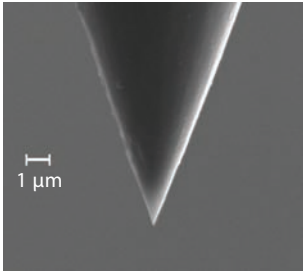
\* This method gives the optical efficiency 102-104 times better than those obtained by mechanical pulling.

**Geometrical & mechanical fiber specification:**

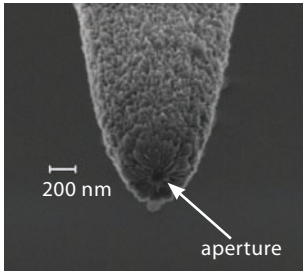
Clad Diameter	125.0 ± 1.5 μm
Coating Diameter	245 ± 15 μm
Core-Clad Concentricity	<0.5 μm
Coating/Clad Offset	≤5 μm
Coating Material	UV Cured, Dual Acrylate
Operating Temperature	-55 to +85 °C
Short-Term Bend Radius	≥ 6 mm
Long-Term Bend Radius	≥ 13 mm
Proof Test Level	≥ 200 kpsi (1.4 GN/m <sup>2</sup> )

**SNOM probe characteristics:**

Characteristic	Probe type				
	MF001	MF002	MF003	MF004	MF005
Basic Nufern fiber	405-HP	460-HP	630-HP	780-HP	980HP
Operating wavelength, nm	400-550	450-600	600-770	780-970	980-1600
Mode Field Diameter	3.5 ± 0.5 μm @ 515 nm	3.5 ± 0.5 μm @ 515 nm	4.0 ± 0.5 μm @ 630 nm	5.0 ± 0.5 μm @ 850 nm	4.2 ± 0.5 μm @ 980 nm 6.8 ± 0.5 μm @ 1550 nm
Second Mode Cut-Off, nm	370 ± 20	430 ± 20	570 ± 30	730 ± 30	920 ± 30
Optical efficiency 100 nm aperture	6x10 <sup>-4</sup>	4x10 <sup>-4</sup>	1x10 <sup>-4</sup>	4x10 <sup>-5</sup>	4x10 <sup>-6</sup>
Optical efficiency 50 nm aperture	6x10 <sup>-5</sup>	4x10 <sup>-5</sup>	1x10 <sup>-5</sup>	5x10 <sup>-6</sup>	4x10 <sup>-7</sup>



Uncoated SNOM probe tip



Probe tip with Al coating.  
Aperture is about 70 nm.

**Code for ordering**

**MF001**

Set of 10 SNOM probes MF001 type without tuning forks

**MF002**

Set of 10 SNOM probes MF002 type without tuning forks

**MF003**

Set of 10 SNOM probes MF003 type without tuning forks

**MF004**

Set of 10 SNOM probes MF004 type without tuning forks

**MF005**

Set of 10 SNOM probes MF005 type without tuning forks

