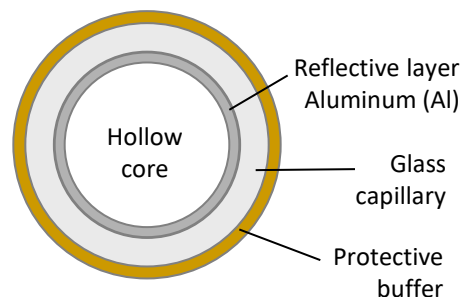




UV-Vis Hollow Fiber Optics



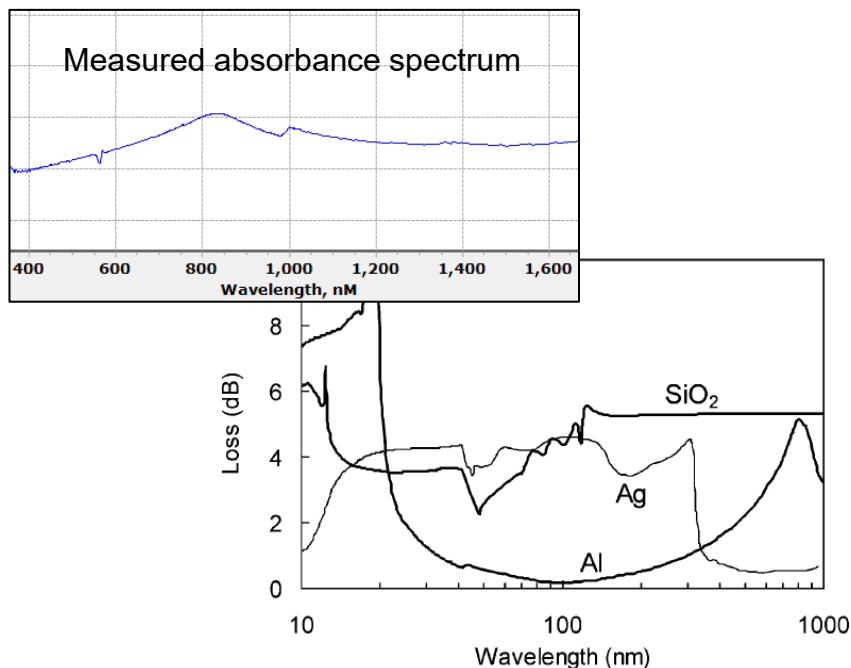
Hollow core fiber

Hollow fibers with an aluminum reflective coating are ideally suited for transmitting ultra-violet wavelength beams, including high power and/or high energy pulsed beams.

Internal Diameter (ID)	700 μm	1000 μm
Typical Loss[†] (straight)	1.0 dB/m	0.5 dB/m
Max Energy* ($\lambda = 193 \text{ nm}$; ArF)	5 mJ	10 mJ
Maximum Power (average)*	1.0 W	2.0 W
Minimum Bend Radius	20 cm	30 cm
Patch Cable Length	0.1 - 1.0 m	

[†] Additional loss on bending, which scales with radius (R) as $1/R$.

* Assuming proper coupling. Initial alignment should always be done at reduced power.



UV Fibers

Coupling into aluminum coated hollow fibers is similar to coupling into our Mid-IR fibers, see guidingphotonics.com for more details. In general, a relatively long focal length lens should be used with the beam focused straight into the fiber. For vacuum UV wavelengths the fibers can be purged with an inert gas.

Related Products

Related hollow fiber optics are available for additional wavelength regimes from UV up to far IR including a full line of hollow fiber optics products designed specifically for mid-infrared (Mid-IR) applications ($\lambda = 2 - 16 \mu\text{m}$). Note: the coating structure for such fibers, includes a dielectric layer with composition and thickness tuned specifically for a given wavelength range.

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