

## DESCRIPTION

IRphotonics doped fibers are manufactured with the company's patented enhanced fluoride fiber manufacturing process. This process allows the fabrication of accurately doped glass rods that are drawn into doped fibers.

Our doped fibers have been optimized for applications requiring a precise core diameter as well as very low attenuation.

Wide ranges of dopant concentration in the core and a variety of geometrical shapes for the outer cladding are possible with IRphotonics fibers allowing a wide range of Fiber Laser designs.

## FEATURES

- Transparent in UV, VIS, NIR, MID-IR
- Wide Range of NA's Available
- Wide Range of Rare Earth Dopants Available
- Wide Range of Dopant Concentrations Available
- Wide Range of Core Diameters Available
- Wide range of Cladding Diameter and Shapes Available

## APPLICATIONS

- Fiber Lasers
- Instrumentation
- Amplifiers

## Doped Mid-IR Fiber



## FIBER SPECIFICATIONS

- Spectral Transmission Range from 300nm to 4500 nm
- Numerical Aperture: 0.05 to 0.25
- Operating Temperature: -20°C to 90°C
- Standard Buffer Coating: Acrylate
- Proof Test Level: >50 kpsi (dependent on fiber design)
- Can be (co) doped with: Er, Pr, Tm, Dy, Ho, Yb, Nd, Sm
- Dopant Concentrations: up to 50 000 ppm, and higher on special request

**SPECIFICATIONS**

SPECIFICATION	
Available Core Diameters	$\geq 4 \mu\text{m}$
Core/Cladding Offset	Depends on core diameter
Coating/Cladding Offset	$\leq 2 \mu\text{m}$
Proof Test Level	$> 50 \text{ kpsi}$
Coating Material	Acrylate
Breaking Bend radius (125 $\mu\text{m}$ cladding)	4 mm
Long-Term Bend Radius	50 mm
Operating Wavelength Range	0.3 to 4.5 $\mu\text{m}$
Numerical Aperture	0.05 to 0.25

**DOPANT SPECIFICATIONS FOR DOPED FIBERS**

Dopants Er, Pr, Tm, Dy, Ho, Yb, Nd, Sm  
 Co-Doping Available  
 Concentration up to 50 000 ppm or higher on special request

**ORDERING INFORMATION**

Most of IRphotonics doped fibers requested are custom made

Contact IRphotonics to discuss your requirements.

Requested doped fiber might be available from stock otherwise the requirements will be responded to and a quotation provided.

**IRPHOTONICS CUSTOMIZATION PROGRAM**

If you have any unique requirements, please contact us to discuss tailoring a product or design to optimize optical performance for your specific application. Custom NA's, dopants, fiber diameters and other specifications can be adapted to your requirements.

Contact IRphotonics for prices and availability or to obtain the name of your local representative.

IRphotonics has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation.