Polycrystalline IR-Fibers & Cables

art photonics

art photonics development of unique extrusion technology for the Mid-Infrared fibers has resulted in a production of Core / Clad Polycrystalline Infra-Red (PIR-) fibers. The PIR-fibers are non-toxic, very flexible and transparent across a broad spectral range 3 -17 µm and capable for operating over the wide temperature range from 4K to 410K.

Applications:

- Spectroscopy Probes for Liquids, Gases & Solids
- Flexible Pirometry in Mid-IR
- Flexible IR-imaging Systems
- Power delivery for CO & CO_2 - Lasers
- Fiber Coupled QCL

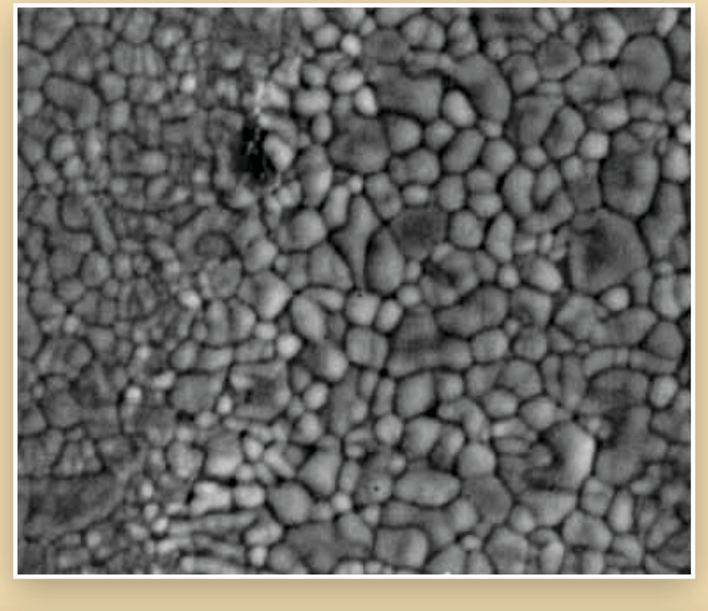
broad spectra fiber solutions **www.artphotonics.com**

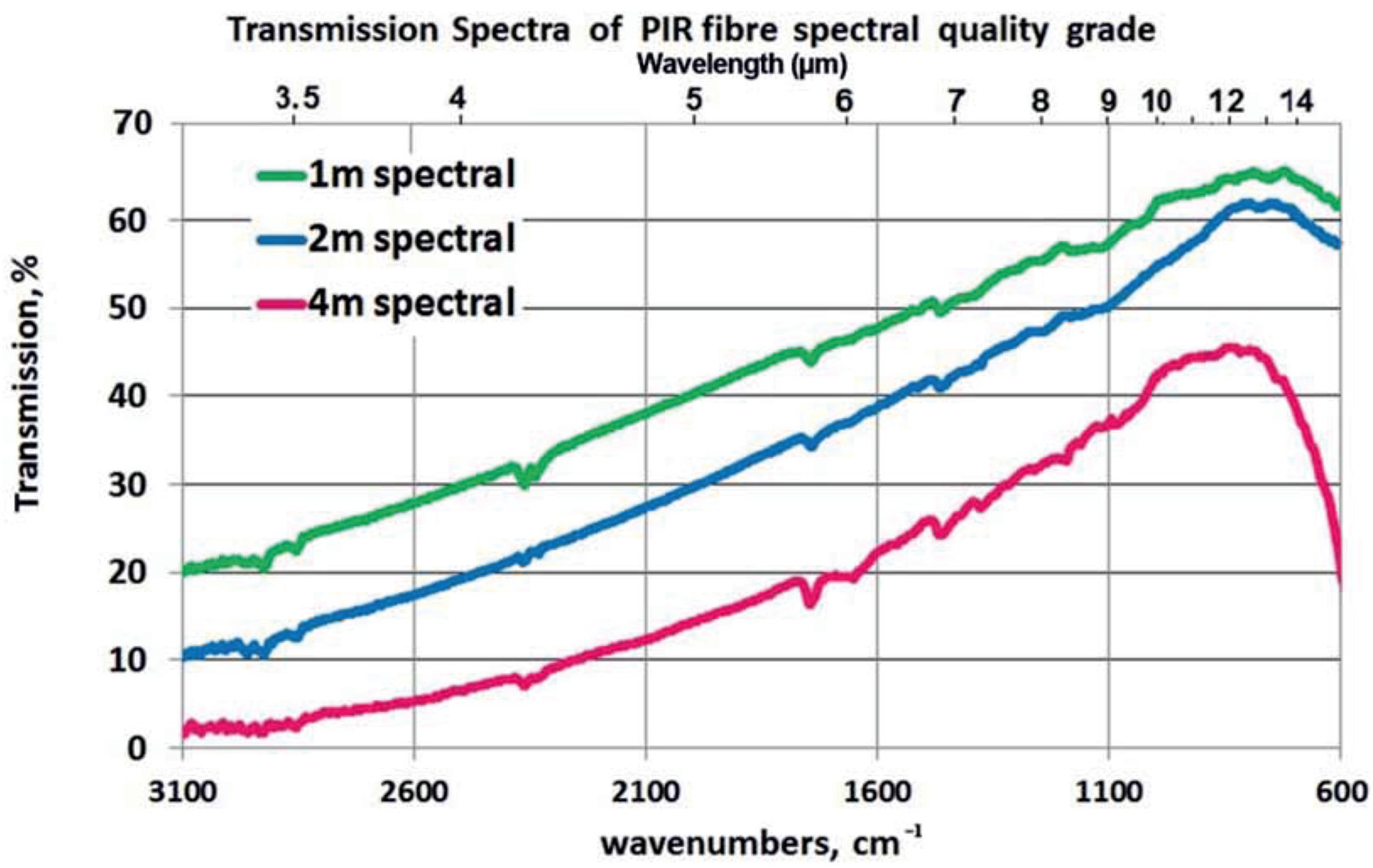
Fiber Specification

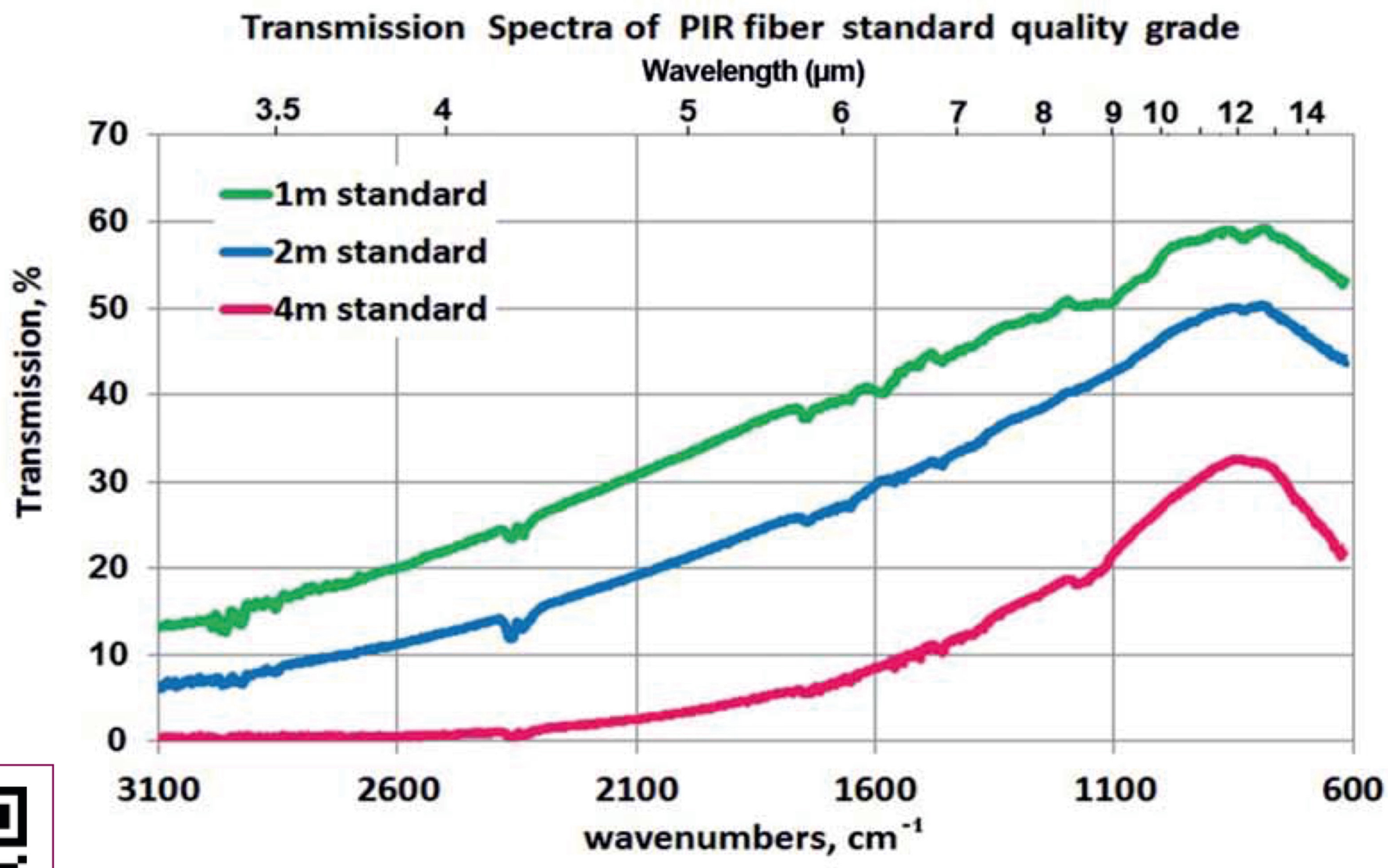
Standard Fibers	PIR-240/300	PIR-400/500	PIR-630/700	PIR-900/1000
Core diameter, µm	240	400	630	900
Cladding diameter, µm	300	500	700	1000

*other diameters are available on request

Transmission Range	3 – 17 µm
Core material	$AgCl_{0.25}Br_{0.75}$
Cladding material	$AgCl_{0.50}Br_{0.50}$
Protective tubing	PEEK
Core Refractive Index	2.15
Effective NA	0.3
Minimum bend radius	100 x Fiber diameter
Operating temperature, °C	-270 < T < 140
Maximum transmitted Power, W	40 (CW)







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