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Title:Polymer microstructured optical fibers for terahertz wave guiding

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Abstract:We outline the most recent technological advancements in the design, fabrication and characterization of polymer microstructured optical fibers (MOFs) for applications in the terahertz waveband. Focusing on specific experimental demonstrations, we show that polymer optical fibers provide a very flexible route towards THz wave guiding. Crucial incentives include the large variety of the low-cost and relatively low absorption loss polymers, the facile fiber preform fabrication by molding, drilling, stacking and extrusion, and finally, the simple fabrication through fiber drawing at low forming temperatures.

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