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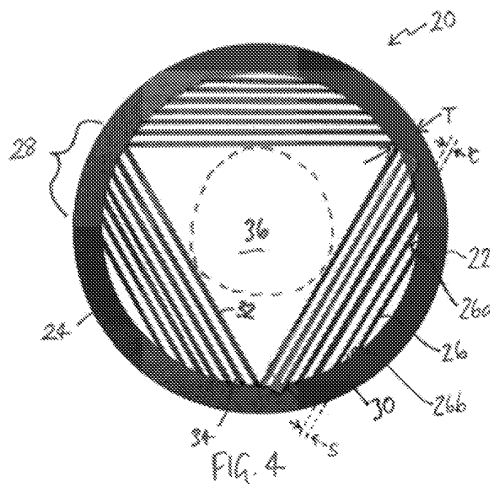
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(54) Title: HOLLOW CORE OPTICAL FIBRE WITH YIELD TOLERANT MICROSTRUCTURE



(57) Abstract: A hollow core optical fibre (HCF) configured for guidance of an optical wave by antiresonance comprises a tubular glass jacket; a hollow core defined in the central lumen of the jacket and having in transverse cross-section a polygonal shape; and a cladding located in the central lumen and comprising flat planar glass membranes each having two opposite edges extending along a length of the HCF, membrane thickness < jacket wall thickness, the membranes arranged as a plurality of groups each comprising: a core boundary membrane defining one side of the polygonal shape; and at least one cladding membrane located between the core boundary membrane and the jacket, all membranes in the group being spaced apart; wherein every side of the polygonal shape is formed by a core boundary membrane, every membrane is anchored to the jacket only along its two opposite edges, and there is no contact between any membranes.

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