Abstracts

Millimeter-wave beams with phase singularities

G.F. Brand. "Millimeter-wave beams with phase singularities." 1998 Transactions on Microwave Theory and Techniques 46.7 (Jul. 1998 [T-MTT]): 948-951.

Beams of millimeter-wave radiation carrying phase singularities have been generated using specially configured plane and blazed gratings. The blazed grating converts a plane wave into such a beam with very high efficiency. All of the properties of these beams that have been seen at optical wavelengths, such as the hollow profiles of the beams and the way a beam already carrying a singularity is subsequently diffracted, are shown to appear at millimeter wavelengths.

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