

Abstract Submitted
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Generating Optical Vortex Arrays with Rectangular Hole Arrays¹

MIAO JIANG, Liquid Crystal Institute, Kent State Univ, Kent, OH, YU-BING GUO, Kent State Univ - Kent, QI-HUO WEI, Liquid Crystal Institute, Kent State Univ, Kent, OH — Paraxial optical beams are known to carry angular momentums which contain both spin and orbital components. Light carrying orbital angular momentum promise applications in information transfer and new spinoptic devices. In this paper we study optical transmission through rectangular hole arrays in metal films, and discuss their interactions with the angular momentum of light and applications in the generations of optical vortex arrays with different topological charges.

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