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标题: Multi-wavelength superlensing with layered phonon-resonant dielectrics
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摘要: We theoretically propose a multilayered polar-dielectric superlens system capable of sub-diffraction limited imaging simultaneously at different wavelengths. Our theory and simulation results show that this multilayered lens can fulfill a superlensing condition at multiple different wavelengths due to phonon resonances of polar dielectrics, and the number of superlensing wavelengths of the lens can be easily tuned by controlling the number of polar dielectrics. Ideally, by suitably choosing polar dielectrics, our lens can cover wavelengths ranging from infrared to THz frequencies. (C) 2012 Optical Society of America
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