535. Title:Optical lens design based on metallic nanoslits with variant widths
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Abstract:Designs of optical lenses based on metallic nanoslits are carried out based on the phase and amplitude modulation by tuning the slit widths. The slits are perforated on thin metallic film, and the width of each slit is achieved by simulated annealing algorithms, which is connected with both the amplitude and phase modulation. Two kinds of focal lenses, which can realize one or two focus points, have been designed. The finite-difference time-domain method is employed to check the performance of the designed lenses. Simulation results show that the designed lenses can perform the preset functions well. Using this method, multiple optical elements with different functions can be conveniently achieved in subwavelength scale.