

A metasurface beam combiner based on the control of angular response

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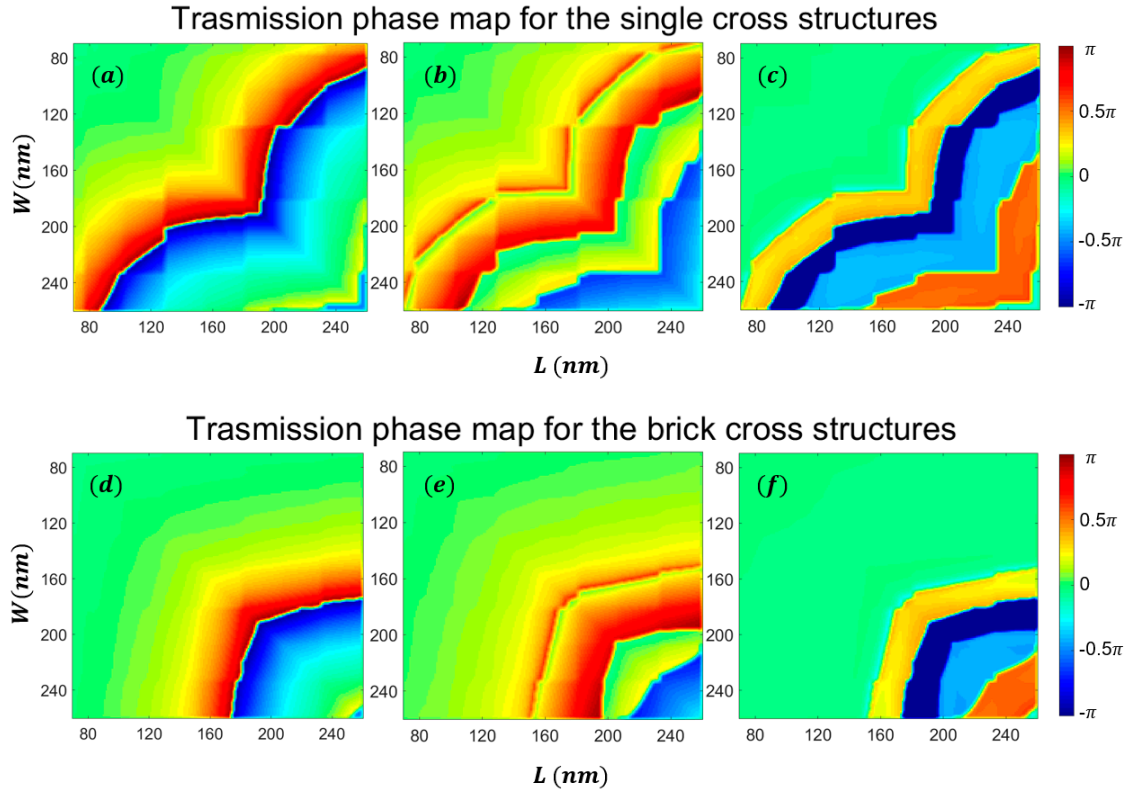


Figure S1. Transmission phase map of the single cross structures (a-c) and brick structures (d-f). (a,d) -3.7° incident light; (b,e) 15° incident light; (c,f) the phase difference between (a) and (b), (d) and (e). The unitcell's size is 520 nm, the structure height (H) is 500 nm, the length (L) and the width (W) vary from 70-260 nm.

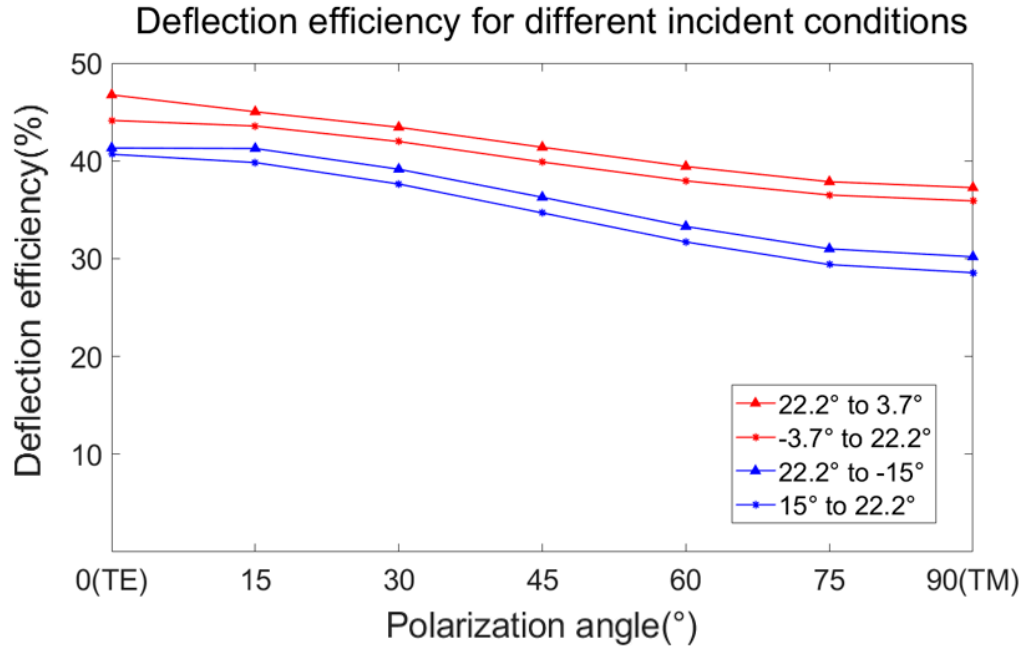


Figure S2. Deflection efficiency for different incident conditions. The blue circles represent the efficiencies of -3.7° incident light being deflected to 22.2° as a function of polarization angle. The red circles represent the efficiencies of 15° incident light being deflected to 22.2° as a function of polarization angle. The triangles represent the deflection efficiencies of light beams incident from the opposite side of the metasurface at an angle of 22.2° .