

varying orientation. Based on the measured intensities of the anomalously refracted LCP and RCP light, the experimental values of the ellipticity and handedness of the incident light agree very well with predicted values. This work shows remarkable potential to address major issues typically associated with the current polarization measurement systems, by virtue of its simplicity, miniaturization, compactness and broadband nature. Use of the metasurface approach can simplify future polarization measurements and lead to much improved optical system integration.

Acknowledgment

This work is supported by the Engineering and Physical Sciences Research Council of the United Kingdom (Grant Ref: EP/M003175/1) and Renishaw-Heriot Watt Strategic Alliance. X.C. acknowledges the start package from School of Engineering and Physical Sciences, Heriot-Watt University. D.W. and F.Y. acknowledge the studentship from Heriot-Watt University. M.C. acknowledges the support from the China Scholarship Council (CSC, No.201208455034).