

Supporting Information

Multiscale Ommatidial Arrays with Broadband and Omnidirectional Antireflection and Antifogging Properties by Sacrificial Layer Mediated Nanoimprinting

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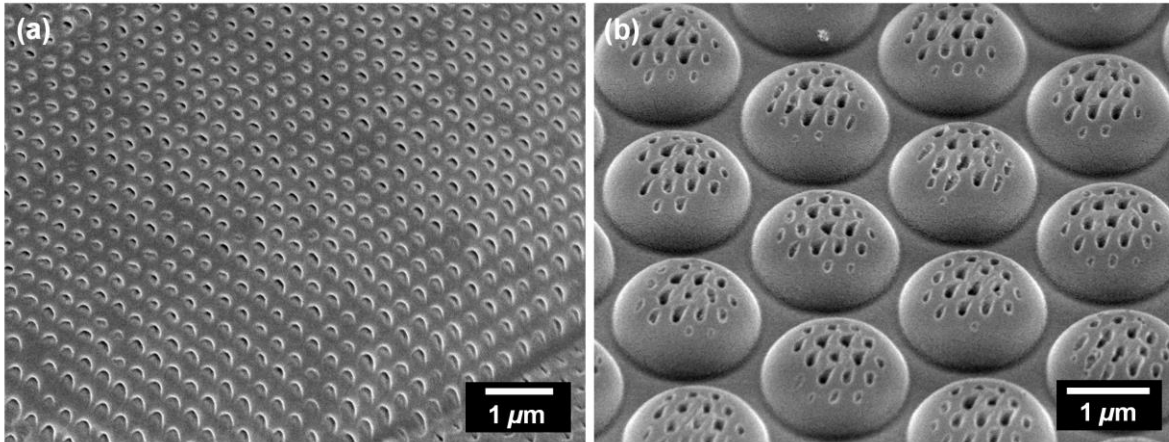


Figure S1 (a) AR nanostructures buckled and deformed after imprinting of microlens, without a sacrificial layer to secure the nanostructure arrays (b) A conventional, direct imprinting approach involving imprinting of AR nanostructures atop previously imprinted microlens arrays that could not fully replicate the nanostructure arrays.

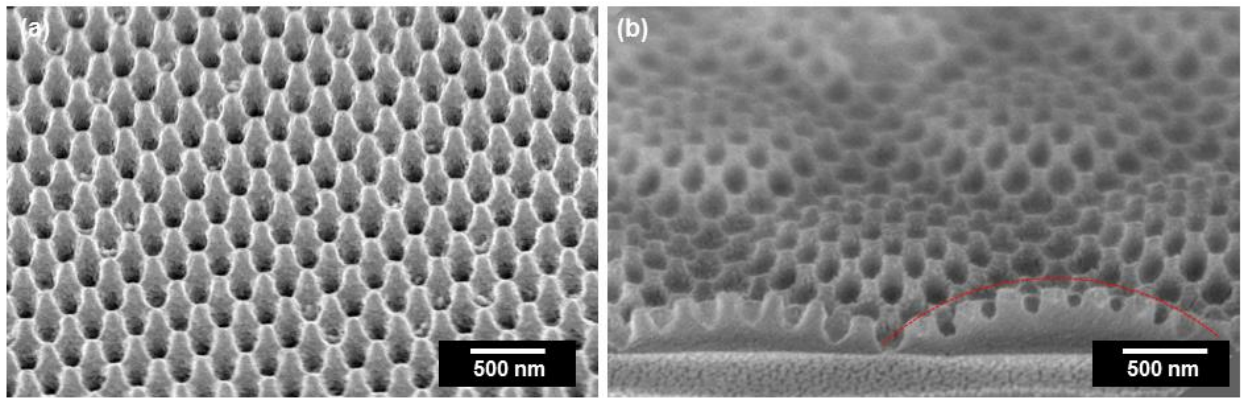


Figure S2 (a) AR nanostructures in a 2-dimesnional plane as imprinted on a planar thermoplastic film. (b) Cross-sectional SEM image of the AR nanostructures on the 3-dimensional microlens array after fabrication through the SLAN methodology.

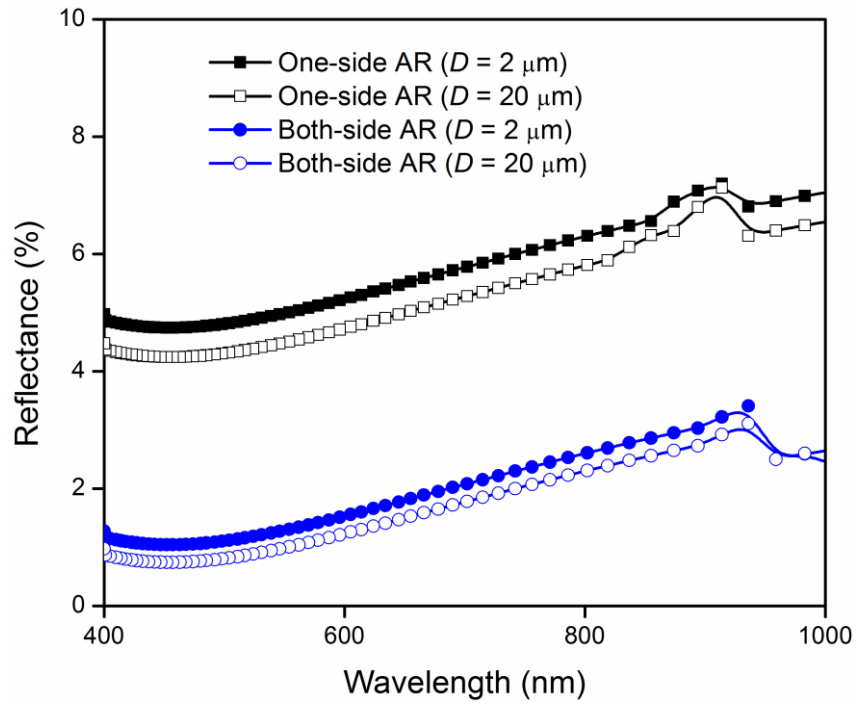
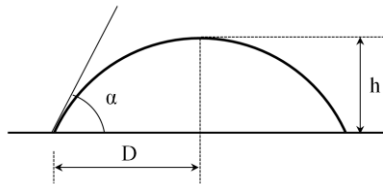


Figure S3 Finite-difference time domain simulations showing the reflectance obtained for multiscale ommatidial arrays of diameter $2 \mu\text{m}$ and $20 \mu\text{m}$.

Table ST1 Design parameters of the microlenses in the multiscale ommatidial arrays



D = Diameter of the ommatidia

h = Height of the ommatidia

α = Contact angle of the ommatidia

Type	D	h	α
2 μm multiscale ommatidial array	2	0.4	40
20 μm multiscale ommatidial array	20	3.0	36