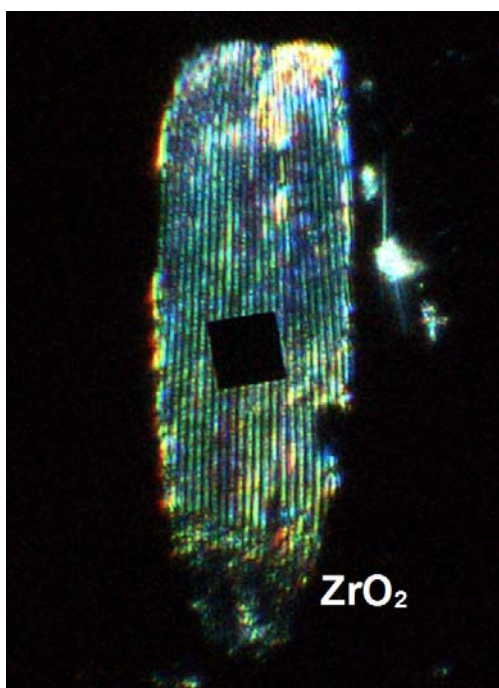


Supplementary Information

Tunable three-dimensional ZrO₂ photonic crystals replicated from single butterfly wing scales

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Supp. Fig. 1 Optical microscope image of synthesized ZrO₂ single wing scale replica. The black square (~15 μm × 15 μm) shows where the reflectance spectra were acquired. ZrO₂ main-ridges are brighter than their adjacent areas (with no structures) and can be seen clearly under the optical microscope, which indicates the main-ridges with their fine structures are the most important functional light reflective units.