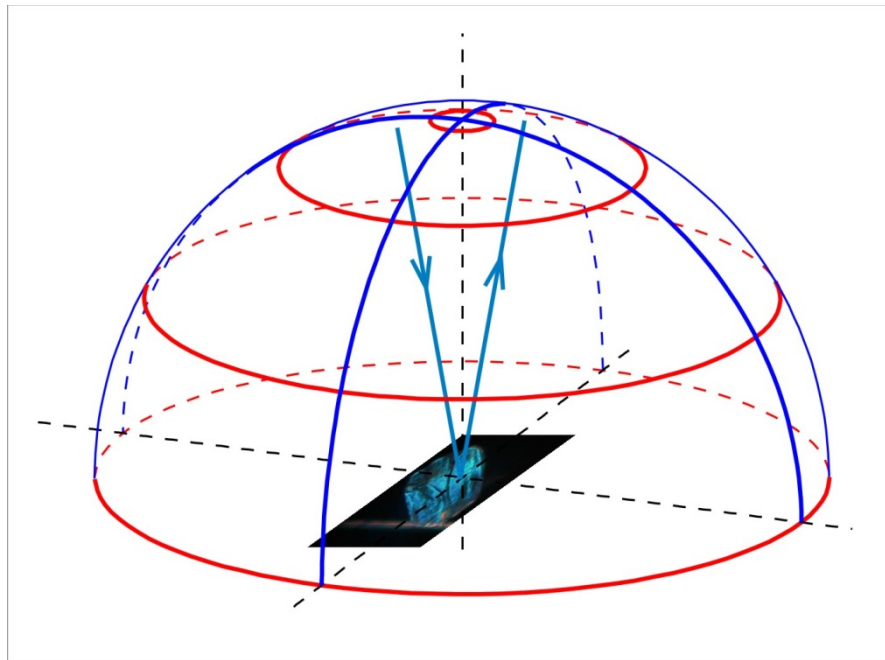
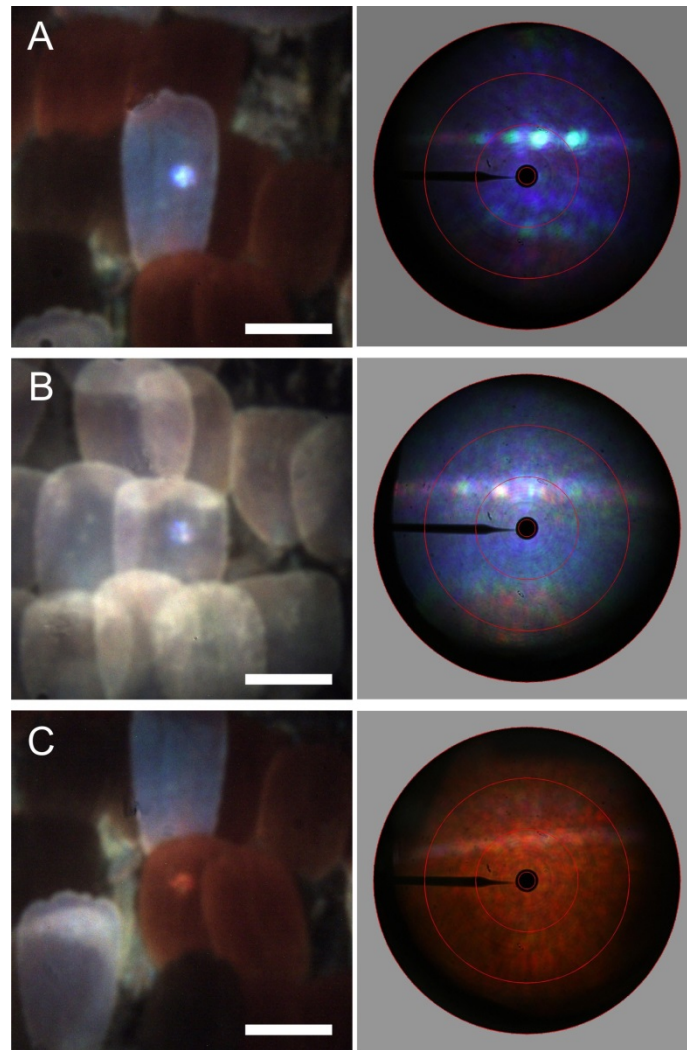


## Supplementary Material



**Fig. S1.** Diagram of light reflection by the adwing side of a nymphaline butterfly wing scale. Locally the wing acts as a thin film reflector. The red circles correspond to the red circles in the scatterograms of Fig. 5 and Fig. S2, and indicate angular directions of 5, 30, 60 and 90 deg.



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10 **Fig. S2.** Scales on the wing of a Peacock butterfly illuminated with a 5 deg aperture light  
11 beam on a  $\sim 13 \mu\text{m}$  diameter area (left) and resulting scatterograms (right). (A) A lowly  
12 pigmented (blue) scale on top of a black scale. (B) A blue scale on top of a similar scale  
13 yielding a white reflection. (C) A red-pigmented scale on top of a similar scale (bars:  $50 \mu\text{m}$ ).

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