



**Dr Rox Middleton**  
**MSci, PhD**

EPSRC Doctoral Prize Fellow

**Area of research**

Characterising iridescence space

School of Biological Sciences,  
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**Summary**

My research has been primarily concerned with the physical optics of biology, both the characterisation of biomaterials and fabrication of novel biomimetic and bioinspired structures. My PhD work investigated characterisation of structural colour in fruits and their development. My current interests lie in the interaction of physical and biological insight and techniques, particularly in visual ecology. My postdoctoral work continues my interest in fruit coloration and also in the characterisation, function and prevalence of iridescent materials in nature, from both an ecological and an optical materials perspective.

**Activities / Findings**

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**Keywords**

- structural colour
- iridescence
- visual ecology

**Memberships**

**Organisations**

[School of Biological Sciences](#)

**Research groups**

- [Animal Behaviour and Sensory Biology](#)
- [Plant and Agricultural Sciences](#)

**Labs**

- [Ecology of Vision](#)
- [Plant Photobiology](#)

**Recent publications**

- Middleton, R., 2018, '[Long-lived polarization memory in the electronic states of lead-halide perovskites from local structural dynamics](#)'. *Nature Communications*.

[View complete publications list](#) in the University of Bristol publications system