

## **Description of Additional Supplementary Files**

**File name:** Supplementary Movie 1

**Description:** Magnetic-field tuneable colouration of 2D cobalt-doped titanium oxide (CTO) suspensions. The CTO suspension placed in a uniform magnetic-field region between two electromagnet poles shows a uniform colour in the presence of crossed polarisers. The first and second demos illustrate that when the CTO suspension passes through a gradient field region, a corresponding rainbow of colours are seen. The one-to-one colour correspondence with the magnetic field is presented in the third demo.