

Light

The United Nation General Assembly has proclaimed 2015 as the "International Year of Light and Light-based Technologies"

Fossils in technicolor: shedding light on the colours of ancient life

ROBERTO GATTO
DEPARTMENT OF GEOSCIENCES
University of Padova

November 18th 2015, 16.30 —Aula C Complesso "Cavalli", via Matteotti 30



Shining with metallic reflections on a butterfly wing or drawing complex chromatic patterns on a mollusc shell, colours are one of the most amazing attributes of living organisms. They originate mainly from the interaction of light with particular substances or microscopic structures present in their body and can perform a variety of functions, such as camouflage, display, warning. Though rare, the preservation in a fossil of the colours of the original organism is a fascinating phenomenon because it helps to reconstruct more realistically the life of the past. In reviewing some of these unusual cases, we will discover how colours can be preserved in fossils, how we study them and what meaning they have.

In the afternoon the museums of the Department of Geosciences (Palazzo Cavalli, via Giotto 1) will be open

- Museum of Geology and Palaeontology: guided tour at 18.00, free entrance, reservation required, max 40 people allowed
 - Museum of Mineralogy: guided tour at 18.00, free entrance, reservation required, max 20 people allowed
- Information and booking: tel 049 8272086, e-mail: museo.paleontologia@unipd.it

Light

The United Nation General Assembly has proclaimed 2015 as the "International Year of Light and Light-based Technologies"

Minerals in technicolor: natural masterpieces of colors and tints

ALESSANDRO GUASTONI
MUSEUM OF MINERALOGY
University of Padova

November 19th 2015, 16.30 —Aula C Complesso "Cavalli", via Matteotti 30



Some minerals, such as tourmalines, may have all the colors of the spectrum in the field of the visible light. When light strikes a mineral can be absorbed, scattered, reflected, refracted, released or transmitted. The color is then selectively caused by the absorption of the light that interacts with the material of which the minerals are composed (atoms, ions, and any structural defects). One of the most characteristic optical phenomena among the minerals is to release a vivid fluorescence when exposed to sources of ultraviolet light or X-ray

In the afternoon the museums of the Department of Geosciences (Palazzo Cavalli, via Giotto 1) will be open

- Museum of Geology and Palaeontology: guided tour at 18.00, free entrance, reservation required, max 40 people allowed
 - Museum of Mineralogy: guided tour at 18.00, free entrance, reservation required, max 20 people allowed
- Information and booking: tel 049 8272086, e-mail: museo.paleontologia@unipd.it