

Symposium Bioinspired Functional Materials: From Nature's Nanoarchitectures to Nanofabricated Designs (SYBM)

jointly organized by
 the Chemical and Polymer Physics Division (CPP),
 the Biological Physics Division (BP),
 the Thin Films Division (DS),
 the Dynamics and Statistical Physics Division (DY),
 the Microprobes Division (MI), and
 the Metal and Material Physics Division (MM)

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Many biological materials and tissues are characterised by properties and functionalities that result from a complex spatial structure on the nanometer scale. Examples include the brilliant optical reflections of some insect and butterfly wings and the non-wettability of plant leaves known as the lotus effect, as well as many others that relate to current topics within the field of condensed matter physics. The symposium will address both for function and formation mechanisms of such biological structures, as well as the inspiration and biomimetic concepts that these systems provide for synthetic counterparts – from structure formation in self-assembly to biomimetic and bioinspired designs for nanofabrication technologies.

Overview of Invited Talks and Sessions

(Lecture room HSZ 02)

Invited Talks

SYBM 1.1	Tue	9:30–10:00	HSZ 02	New twists in biological photonics: circular polarisation and beyond. — ●PETE VUKUSIC, LUKE McDONALD, EWAN FINLAYSON
SYBM 1.2	Tue	10:00–10:30	HSZ 02	Bio-inspired materials and structures for technology and architecture — ●THOMAS SPECK
SYBM 1.3	Tue	10:30–11:00	HSZ 02	Cellulose bio-inspired hierarchical structures — ●SILVIA VIGNOLINI
SYBM 1.4	Tue	11:15–11:45	HSZ 02	Strong Flexible Bioenabled Nanocomposites for Sustainable Sensing — ●VLADIMIR TSUKURUK
SYBM 1.5	Tue	11:45–12:15	HSZ 02	3D laser nano-printing of rationally designed materials — ●MARTIN WEGENER

Sessions

SYBM 1.1–1.5	Tue	9:30–12:15	HSZ 02	Bioinspired Functional Materials: From Nature's Nanoarchitectures to Nanofabricated Designs
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Related Sessions

Chemical and Polymer Physics Division (CPP)

Bioinspired Functional Materials I, Mon 10:15–13:00 (ZEU 114)
 Bioinspired Functional Materials II, Mon 15:00–18:15 (ZEU 114)
 Poster Bioinspired Functional Materials, Mon 18:30–21:00 (P1C)