Module title: Chemically and bio-inspired Nanotechnology for Material Synthesis
Abbreviation: 08-FU-NT-152-m01

Module coordinator: degree programme coordinator Funktionswerkstoffe (Functional Materials)
Module offered by: Chair of Chemical Technology of Material Synthesis

ECTS: 5
Method of grading: numerical grade
Duration: 1 semester
Module level: undergraduate
Other prerequisites: --

Contents
Synthesis methods and parameters in sol-gel chemistry as well as characterization and application of created materials. Basic principles of bio-mineralisation, structure of biomaterials and introduction to bio-inspired materials synthesis.

Intended learning outcomes
The student possesses profound knowledge about sol-gel chemistry and bio-mineralisation.

Courses (type, number of weekly contact hours, language — if other than German)
V (4)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes)
Language of assessment: German and/or English

Allocation of places
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Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)
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Module appears in
Bachelor’ degree (1 major) Nanostructure Technology (2015)
Bachelor’ degree (1 major) Functional Materials (2015)
Master’s degree (1 major) Chemistry (2016)
Master’s degree (1 major) Chemistry (2018)
Master’s teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)
Master’s degree (1 major) Chemistry (2018)
Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)
Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020)
Bachelor’ degree (1 major) Nanostructure Technology (2020)
Bachelor’ degree (1 major) Quantum Technology (2021)