

THE WORLD COMES HERE.

TMS 2023

152nd Annual Meeting & Exhibition

MARCH 19–23, 2023
SAN DIEGO CONVENTION CENTER &
HILTON SAN DIEGO BAYFRONT
SAN DIEGO, CALIFORNIA, USA
#TMSANNUALMEETING



SUBMIT AN ABSTRACT BY JULY 1 FOR THE FOLLOWING TMS2023 SYMPOSIUM:

ADVANCED MATERIALS

Advanced Functional and Structural Thin Films and Coatings & Honorary Palkowski Session

Advanced Functional and Structural Thin Films and Coatings symposium will host the Heinz Palkowski's session at the TMS 2023 Annual Meeting & Exhibition in San Diego. This honorary session will be in celebration of the innovative and extensive contributions of Heinz Palkowski from the Clausthal University of Technology (TUC), encompassing materials development (e.g. steels) by thermomechanical treatments, processing, and their characterization. In parallel, this session will focus on the elaboration of advanced hybrid systems for improving the mechanical properties of lightweight materials (MMC) as well as structures in combination with metals and non-metals for automotive and biological applications. It will be open to all TMS2023 attendees. Invited presentations will be delivered during two sessions on Tuesday. In addition, Advanced Functional and Structural Thin Films and Coatings programming sessions will be held on Monday and Wednesday.

Functional thin films and coatings continue to be an innovative area in physics, materials science, chemistry, and engineering. This symposium encompasses all aspects of advanced thin films and nanomaterials for modern biological, electronic, optical, and photonic devices with applications in biological systems, photovoltaics, sensing, and display technologies. Moreover, coatings and engineered surfaces for reducing corrosion and wear as well as making use of lubricant-free (green) production and coatings for biomedical and healthcare applications are of interest. This symposium will include, but will not be limited to the following topics:

- Scope 1:
 - Thin films and nanostructures for optoelectronics
 - Fundamental studies and modelling, photonics, plasmonics, sensors, flexible electronics
 - Multifunctional materials and devices

- Scope 2:
 - Coating technologies and surface structuring for tools
 - Fundamentals and applications of lubricant-free (green) production
 - Methods to improve wear resistance and reduce friction
 - Functionalizing surfaces and interfaces
- Scope 3:
 - Multifunctional biomaterials, innovative approaches to new concepts, and applications
 - Functionalities of coatings/surface modifications
 - Methods to improve biocompatibility, cell proliferation and growth, antimicrobial behavior and metallic ion release, load-bearing prostheses, corrosion resistance, wear resistance, etc. under in-vitro and in-vivo conditions

ORGANIZERS

Gerald Ferblantier, University of Strasbourg - IUT LP / ICube Laboratory - CNRS

Adele Carrado, University of Strasbourg - IUT LP / IPCMS - CNRS

Ramana Chintalapalle, University of Texas at El Paso

Karine Mougín, CNRS - IS2M

Ravindra Nuggehalli, New Jersey Institute of Technology

Heinz Palkowski, Clausthal University of Technology

SYMPOSIUM SPONSORS

TMS Functional Materials Division

TMS Thin Films and Interfaces Committee

www.tms.org/TMS2023

QUESTIONS?
Contact programming@tms.org