

MSE 2024

24 - 26 Sep 2024 (Darmstadt)

dgm.de

Topic F: Functional Materials, Surfaces and Devices

F08: Inorganic and organically modified thin-film protective coatings - properties and applications

Protective coatings, especially inorganic thin-film coatings, are the most natural option for ensuring long-term stability of engineering materials and resistance to harsh operating conditions. Development of cost effective products under stringent environmental regulations is much more possible for inorganic coatings even if they are doped by organic moieties. The symposium is focused on the surface modification of materials as steels and other alloys, with inorganic thin-films, especially amorphous ones, to enhance the electrochemical resistance of the sample while maintaining the continuity of the coating under mechanical loads. The symposium will deal mainly with experimental investigation focused on the functional properties of protective coatings and the main focus will be on the application in:

- biological environments, biomaterial
- marine environment - offshore
- machines and devices - bearings
- erosional environments
- corrosive and abrasive environments
- civil construction and infrastructure market.

The scientists who conduct: physicochemical, electrochemical, mechanical and other functional properties analysis that provide protection of the metallic substrate are very welcome to share their research results during the oral or poster session. We especially invite people who protect the substrate when working in a corrosive environment under mechanical monotonic and/or cyclic loading.

Symposium Organizer



Dr.-Ing. Justyna Krzak
Wroclaw University of Science and Technol...



Prof. Wojciech Simka
Silesian University of Technology



Dr. Marek Smaga
RPTU Kaiserslautern-Landau

