Special Issue

Self-Healing Organic-Inorganic Coatings

Message from the Guest Editors

Hybrid coatings provided outstanding metallic protection in extreme environments for combining features of organic and inorganic materials that not only result in a remarkable barrier but also in improved mechanical, thermal, chemical and adhesion properties. In recent decades, the development of self-healing materials has added the possibility to regenerate hybrid coatings after failure, extending their service life. Driven by the current applications of smart materials, the design of self-healing organic–inorganic coatings must maintain their structural integrity without compromising barrier and adhesion properties. To this end, the unlimited possibilities for the design, synthesis, testing, and applications of high-performance anti-corrosion materials support this SI to host papers in the following scope:

- Methods to synthesize self-healing coatings
- Smart ecofriendly coatings for corrosion protection
- Green materials for effective corrosion inhibition
- New organic–inorganic systems for protection of metallic alloys
- Water uptake calculations, prediction of performance and durability of hybrid coatings in extreme environments
- Self-healing mechanisms

Guest Editors

Prof. Dr. Peter Hammer

Department of Analytical, Physical and Inorganic Chemistry, Universidade Estadual Paulista "Júlio de Mesquita Filho", Sao Paulo, Brazil

Dr. Andressa Trentin

Centre for Functional and Surface Functionalized Glass, Alexander Dubček University of Trenčín, Trencin, Slovakia

Deadline for manuscript submissions

closed (15 February 2024)

Coatings

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.4

mdpi.com/si/130770

Coatings
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
coatings@mdpi.com

mdpi.com/journal/coatings

Coatings

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.4

mdpi.com/journal/coatings

About the Journal

Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.
Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

Editors-in-Chief

Prof. Dr. Wei Pan
State Key Laboratory of New Ceramics and Fine Processing, School of Materials Science & Engineering, Tsinghua University, Beijing 100084, China

Dr. Emerson Coy
NanoBioMedical Centre, Adam Mickiewicz University in Poznań, ul. Wszechnicy Piastowskiej 3, 61-614 Poznań, Poland

Author Benefits

Open Access

— free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q2 (Surfaces, Coatings and Films)

MDPI