



Surface Electrochemistry: Corrosion and Electrode Materials

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Message from the Guest Editors

Dear Colleagues,

Surface electrochemistry focuses on electrochemical reactions involving the transfer of electric charge across the electrode/solution interface, which are inherently associated with thermodynamic and kinetic processes of electrode interfaces, chemical bonding of adsorbates, and electrocatalytic reactivity and bonding of water molecules and anions on electrode surfaces. This Special Issue aims to collect the latest developments in this area, with special emphasis on surface electrochemistry as well as industrial applications in corrosion protection areas and electrode materials for energy conversion. Contributions from academic research, application-oriented research, and industrial field studies are welcome.

In particular, the topic of interest includes but is not limited to

- Surface electrochemistry;
- Electrode/solution interfaces;
- Corrosion mechanism of metallic materials;
- Electrode materials for metallurgy;
- Nanostructured electrocatalysts;
- Electrode materials for batteries, fuel cells, solar cells, and sensors;
- Electrochemical characterization;
- Corrosion-resistant coatings;
- Biomimetic coatings.





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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.

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