Special Issue

Surface Engineering of C/N/O Functionalized Materials

Message from the Guest Editor

The carburizing and nitriding of metallic materials are vital to enhancing the fatigue life of key base components, such as tools and dies. Highly efficient oxygen transport in ceramic oxides is important to accelerate the practical applications of ceramic fuel cells. The aim of this Special Issue is to present technical synergies, such as characterization and testing methodology, surface reaction mechanism, diffusion mechanism, process–structure–property relationships, etc., between the surface engineering of metals and ceramics by evaluating the reaction-diffusion of C/N/O, and to accelerate scientific discovery in the area of surface engineering. This Special Issue is dedicated to the up-to-date development of surface engineering of C/N/O functionalized materials. Both experimental and theoretical studies are encouraged. The subtopics to be covered within the issue include but are not limited to:

- Heat treatment of steels;
- Ceramic fuel cells;
- Surface engineering of metals and ceramics;
- Carburization and nitridation;
- Surface chemical modification;
- Process modeling and simulation;
- Process–structure–property relationships.

Guest Editor

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Deadline for manuscript submissions

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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.

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