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Assessment of Multifunctional Nanostructured Coatings/Metal Interfaces in Extreme Environments

Guest Editor:

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Deadline for manuscript submissions:
closed (31 January 2019)

Message from the Guest Editor

Dear Colleagues,

Nanostructured multifunctional coatings as single layer or multilayers covering metallic substrates are among the most highly-exploited research systems in the field of corrosion science and engineering. The manufacture, design and test of high-performance nanoparticles that are either electroactive or are capable of serving as physical protection layers provides unprecedented functionality and opportunities for multifunctional coatings protecting the metallic alloys.

The experimental, theoretical, computer simulation and field conditions approach are endless; however, challenges like performance assessment modeling and experimental, corrosion control mechanisms, localize attack monitoring and simulation, in situ high resolution electrochemical techniques, matrix and control over interfacial interactions with extreme (corrosive, temperature and stress) environments are yet to be completely resolved. Towards this goal, we are assembling a Special Issue of journal Metals to encourage researchers worldwide and to provide them with a platform to publish their novel studies.

Prof. Dr. Homero Castaneda
Guest Editor

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Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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