Special Issue

Environmentally-Assisted Cracking of Traditional and Innovative Alloys

Message from the Guest Editors

It is a pleasure to introduce you to this Special Issue dedicated to environmentally-assisted cracking (EAC), the premature fracture of susceptible materials under the synergistic action of tensile loading and a specific environment. Within EAC, we find phenomena such as stress corrosion, fatigue corrosion, and hydrogen embrittlement. The latter is extremely timely, considering that many industrialized countries see hydrogen as a source of green energy that will play an important role in decarbonising energy consumption. The transport, storage, and subsequent reoxidation of hydrogen represent a great challenge for the materials of the future, which must ensure great structural performance whilst guaranteeing operational safety. This Special Issue aims to be a collection of the most recent research on the problems of EAC, above all but not limited to the industry of production, transport, and the storage of traditional and innovative energy sources. Other aspects of EAC-related work are also welcome.

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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