Special Issue

Corrosion and Formation of Surface Films on Metals and Alloys

Message from the Guest Editors

Corrosion is a multifaceted degradation phenomenon with wide-ranging consequences in many industries and environments. The corrosion behavior of materials in corrosive media depends critically on the nature of the passive film and corrosion products formed during the corrosion process. This Special Edition will emphasize these passive films and corrosion products that form during the aqueous media's corrosion process. Mild and stainless steel are popular materials in several industries and applications, and their corrosion behavior is often reported. However, a wide variety of other non-ferrous metals and alloys find application in numerous products and processes. The focus in this Special Edition will be on these different alloys and metals, e.g., titanium, magnesium, and aluminum alloys, copper, brass, and bronze alloys, cermet and metal matrix composites, high-entropy alloys, and any materials and the nature and composition of passive film and corrosion products formed on them during any aqueous corrosion process. Information obtained by any surface analysis technique, or combination thereof, which can provide such information and is utilized as part of the study [...]

Guest Editors

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Dr. Michael Oluwatosin Bodunrin
Dr. David Whitefield

Deadline for manuscript submissions

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Message from the Editorial Board

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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