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Passive Oxide Films and Their Susceptibility to Corrosion

Guest Editor:

Prof. Dr. Daniel John Blackwood

Department of Materials Science & Engineering, National University of Singapore, Singapore 117574, Singapore

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Message from the Guest Editor

Dear Colleagues,

It is only the presence of passive oxide films that allows us to make use a number of thermodynamically reactive metals, such as aluminium and titanium alloys, as well as stainless steels. Despite the obvious economic importance of these thin films and decades of study, we are only now starting to really understand their properties; be it crystallinity, electrical conductivity or even in some cases composition. This knew knowledge should lead us to a better understanding of, or, perhaps, to a better agreement on, the mechanisms behind the breakdown of passive films and the subsequent corrosion of the underlying substrate.

The scope of this Special Issue covers, but is not limited to: The nature of passive films on industrially important metals and alloys and their role in preventing corrosion and degradation.

Prof. Dr. Daniel J. Blackwood *Guest Editor*









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Editor-in-Chief

Prof. Dr. Maryam Tabrizian

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

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