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# Metallic Films: From Nanofabrication and Nanostructuration to Characterizations and Applications

Guest Editor:

#### Dr. Francesco Ruffino

Department of Physics and Astronomy "Ettore Majorana", University of Catania, Via Santa Sofia 64, 95123 Catania, Italy

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## Message from the Guest Editor

Dear Colleagues,

Metallic films are key components in many of modern technologies. In particular, nanostructured metal (Au, Ag, Pd, Pt, Ni, Co, Fe, etc.) films find applications in the production of innovative devices and coatings. These technologies, however, require exploitation of the electronic, magnetic, optical, mechanical, and thermal properties unique to metallic materials. Thus, it is of paramount importance to control the films of nanoscale structures, as a result of the fabrication or post-fabrication processes, to tailor their properties.

This Special Issue of *Metals* aims at collecting a compilation of review articles and original research papers illustrating: a) the latest developments in nanofabrication and nano-patterning of thin metallic films; b) the development of new 1D, 2D, and 3D metallic nano-architectures for specific applications; c) the use of advanced state-of-art characterization methods for the understanding of full metallic films and nano-architectures properties; d) exploitation of the physico-chemical properties of nanostructured metallic films in the fabrication of devices (from electronics to sensors).









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#### Prof. Dr. Hugo F. Lopez

Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

#### Prof. Dr. Yong Zhang

Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

### **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 metallurgical field the 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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*Metals* Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/metals metals@mdpi.com X@Metals\_MDPI