



## Active Screen Plasma Treatment

Guest Editor:

**Prof. Dr. Akio NISHIMOTO**

Department of Chemistry and  
Materials Engineering, Kansai  
University, Osaka, Japan

Deadline for manuscript  
submissions:

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### Message from the Guest Editor

Dear Colleagues,

Conventional direct current plasma nitriding (DCPN) has some limitations and disadvantages. Thus, some new methods were presented to avoid the direct formation of plasma on the surface and its consequent problems. One of the methods is active screen plasma nitriding (ASPN) or cathodic cage plasma nitriding (CCPN). Many researchers have reported on factors that are critical to nitriding, including the geometry of the active screen or cathodic cage, the distance between the screen and the component, screen material, furnace size, the value of bias power, and the sample position. Various materials such as steels, titanium alloys, aluminum alloys, copper alloys, high-entropy alloys, polymers, and carbon fibers have been nitrided by ASPN or CCPN. Different materials such as silver, copper, titanium, chromium, and carbon have also been applied as an active screen. This Special Issue will collect reviews and articles related to active screen plasma treatments such as ASPN or CCPN as well as active screen plasma carburizing (ASPC) or cathodic cage plasma carburizing (CCPC).





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## Editor-in-Chief

### 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 Editor-in-Chief

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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Metals Editorial Office  
MDPI, Grosspeteranlage 5  
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