



## Preparation and Characterization of Structural/High-Strength Steels

Guest Editors:

**Dr. Evgeniy Tkachev**

1. Laboratory of Mechanical Properties of Nanostructured Materials and Superalloys, Belgorod State University, Belgorod 308015, Russia  
2. Moscow Timiryazev Agricultural Academy, Russian State Agrarian University, Moscow 127550, Russia

**Dr. Andrey Belyakov**

Laboratory of Mechanical Properties of Nanostructured Materials and Superalloys, Belgorod National Research University, Pobeda 85, Belgorod 308015, Russia

Deadline for manuscript submissions:

**closed (11 January 2024)**

### Message from the Guest Editors

High-chromium martensitic steels with low carbon (0.1% max) contents and additions of Mo, W, V, Nb, N and other elements are the main structural materials used in the steam circuit of modern power units due to their relatively high creep strength, good oxidation resistance at elevated temperatures and low cost.

The aim of this Special Issue is to clarify the basic principles of alloying design, processing and applications, as well as new progress and findings in the field of high-chromium martensitic steels. The articles presented in this Special Issue will cover various topics, including but not limited to:

- Alloying design;
- Microstructure characterization;
- Mechanical behavior at elevated temperatures;
- Heat treatment and thermo-mechanical processing;
- Microstructural degradation and fracture behavior;
- Precipitation and coarsening of secondary particles;
- Corrosion, physical and mechanical behavior;
- Welding of similar and dissimilar materials;
- Microstructure–mechanical-properties relationships.





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### Prof. Dr. Alessandra Toncelli

Department of Physics, University  
of Pisa, 56126 Pisa, Italy

## Message from the Editor-in-Chief

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*Crystals* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
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