



## **Editorial Introduction to the First Issue of Acta Materialia Turcica**

On behalf of the Editorial Board, it is with great sincere privilege that I am writing this message to present the first issue of the *Acta Materialia Turcica*. Introduction of this new journal would not have been possible without the important contributions from the Editorial Board members and from Gebze Technical University.

Stone Age, Bronze Age, Iron Age and Silicon Age... Materials Science has acquired great importance throughout the history and the civilization has developed in hand with the utilization of new materials. Today, advancement in materials technology is one of the major factor determining the industrial competitiveness of a country. According to the report of European Commission's Materials Summit in Brussels. "Seventy per cent of all technical innovations are directly or indirectly linked to materials; this percentage has been increasing since 1970 and is forecast to continue increasing steadily until 2030".

This journal targets to offer a common platform for researchers to promptly share their novel results and latest developments in *Materials Science and related areas*. The journal aspires to function as an international forum within the editorial focus, with a determination to disseminate the results promising scientific excellence. Currently the Journal welcomes the scientific contributions in the following topics:

### **1. Condensed Matter Physics**

- Crystallography
- Semiconductors physics and devices
- Ferroics and multiferroics
- Magnetic materials
- Superconductors
- Computational solid state physics

### **2. Nanoscience and Nanotechnology**

- Graphene and 2D materials
- Multifunctional nanomaterials
- Nanoelectronics and information technology
- Nanobiotechnology
- Layered and composite nanostructures
- Computational nanoscience and nanotechnology
- Nanofabrication

### **3. Optical Physics, Quantum Electronics and Photonics**

- Optoelectronics, quantum electronics
- Applied optics
- Non-linear optics
- Laser physics and applications
- Ultrafast phenomena and applications
- Computational optical physics

### **4. Materials Science & Engineering**

- Surfaces, interfaces and colloids
- Sol-gel technology
- Thin film technology
- Polymers and amorphous materials
- Superalloys
- Ceramics and glasse

- Biomaterials
- Extractive metallurgy
- Melting and casting
- Powder metallurgy
- Steels and steel production technologies
- Heat treatment
- Mechanical behavior of materials
- Science and technology composite materials
- Nondestructive evaluation of materials
- Materials characterization
- Computational materials science and engineering

#### **5. Engineering and Industrial Physics, Instrumentation Metrology and Standards**

- Advances in instrumentation and techniques
- Applications of microscopy and imaging techniques in the physical sciences
- Applied non-linear physics
- Environmental physics
- Transport phenomena
- Mechanical design
- Microelectromechanical Systems (MEMS)
- Biomechanics
- Separation and purification processes
- Mathematical methods in biophysics
- Optimization techniques
- Finite element analysis

#### **6. Quantum, Atomic and Nuclear Physics**

- Atomic, molecular and chemical physics
- Radioactivity and radiochemistry, radiation protection and safety issues
- Nuclear sciences and engineering
- Quantum entanglement, quantum information and quantum cryptography
- Plasma physics, high-energy physics and particle physics
- Computational atomic and nuclear physics
- Chaos and complex systems

We hope you will enjoy reading our first issue, and that you find these articles useful to stimulate your research into the vibrant area of Materials Science. We invite you to submit your best papers for publication.

With my kindest regards,  
Ahmet Yavuz Oral  
Editor-in-Chief  
Gebze Technical University