Special Issue Scope: in Materials Science in Semiconductor Processing

Manuscripts intended for publication in Materials Science in Semiconductor Processing should be submitted to the Special Issue: Processing and Characterization of Functional Oxide Semiconductors for Emerging Device Technologies (Functional Oxide Semiconductors)

This Special Issue welcomes manuscript submissions from all conference sessions related to functional oxide semiconductors, covering recent advances in materials synthesis, processing, characterization, and device integration.

Topics of interest include (but are not limited to):

- Novel fabrication and processing techniques for bulk, thin-film, and nanostructured oxide semiconductors
- Advanced characterization methods, including synchrotron-based spectroscopy, electron microscopy, and operando / in situ techniques
- Defect, interface, and compositional engineering for enhanced carrier transport, switching behavior, and ionic conduction
- Functional oxide semiconductors for energy harvesting, sensing, and photonic/electronic devices
- Integration of oxide materials in AI-enabled, neuromorphic, and quantum-inspired systems
- Device-level studies demonstrating improved performance, reliability, or multifunctionality enabled by oxide materials

All submitted manuscripts will undergo a preliminary review by the Academic Committee prior to journal submission. The journal submission system will open on 25 January 2026.