

SPECIAL SECTION

Advances in Material Properties for Better Performance in Engineering Applications

With great interest, we introduce to the readers of the Journal of Mining and Metallurgy, Section B: Metallurgy, vol. 60 (2) 2024, Special Section entitled: "Advances in Material Properties for Better Performance in Engineering Applications".

The section contains extended versions of papers presented at the 54th International October Conference on Mining and Metallurgy - IOC M&M 2023.

The 54th IOC M&M (Bor Lake, Serbia, 18-21 October 2023) was organized by the University of Belgrade, Technical Faculty in Bor in cooperation with the Institute of Mining and Metallurgy Bor.

This conference brought together experts from academia and industry to exchange ideas and research findings through plenary sessions, invited lectures, oral and poster presentations, company showcases, and interactive exhibitions.

A selection of peer-reviewed studies reflects the commitment of the Journal of Mining and Metallurgy, Section B: Metallurgy, to present further advances in sustainable methodologies and innovative technologies within the metallurgy industries.

The chosen top-rated oral presentations are presented in their extended version inside the Special section. The submitted extended version of the papers underwent a rigorous peer-review process by independent reviewers according to the Journal of Mining and Metallurgy, Section B: Metallurgy editorial policy and publishing requirements.

All papers share the rationale behind improving material resilience for performance optimization in extremely demanding applications. The topics covered include predictive modeling of biocompatible titanium alloys, novel methods related to wear-resistant bimetallic parts fabricated by Wire Arc Additive Manufacturing, and material resistance to ultrasonic cavitation erosion.

These research works will contribute to the field of material science and yield relevant insight into the development of more durable, efficient, and reliable engineering solutions for a wide range of demanding industrial contexts.

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