

## Trends and Advances in Anti-wear Materials

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### Message from the Guest Editors

Novel anti-wear materials with superior mechanical properties are being highly demanded in modern industries. Many critical components for industrial application are prepared using anti-wear materials, including crusher hammers, brake discs, engine cylinder sleeves, friction sheaves, grinding rollers, and liner plates for ball mills. Although various anti-wear materials have been developed, the contradiction between wear resistance, strength, ductility, and toughness remains a significant problem. Therefore, the pursuit of advanced anti-wear materials and related methods for their processing has become a critical issue.

Manuscripts on calculation studies, simulation, and experimental works are welcome, and the topics of interest include but are not limited to:

1. Development of advanced anti-wear
2. Deposition of hard coatings (e.g., PVD, CVD, etc.).
3. Solidification or fabrication of metal matrix composites.
4. Computer simulations for designing novel high-performance anti-wear materials.
5. Development of ceramic-particle-dispersed superhard alloys.
6. Unprecedented properties of metallic anti-wear materials...



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## Message from the Editorial Board

Now more than ever, research is called for to produce technologies and improve knowledge to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed at the center of most contemporary research. Surface science and engineering play a key role in this regard. Refining surfaces and their modifications provides new materials, architectures and processes with a huge potential to aid most societal challenges. *Coatings* is a well-established, peer-reviewed, online journal that focuses on the dissemination of publications in the field of surface science and engineering. *Coatings* publishes original research articles that report cutting-edge results and review papers on the hottest topics.

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