Special Issue

Artificial Intelligence for Plasma Processes

Message from the Guest Editors

This Special Issue on “Artificial Intelligence for Plasma Processes” invites high-quality contributions that showcase recent advances at the intersection of AI and plasma science/engineering. Topics of interest include, but are not limited to, the following:

- Data-driven and hybrid (physics + ML) models for plasma kinetics, transport, and chemistry;
- AI-enabled plasma diagnostics, tomography, and real-time sensing;
- Autonomous control, optimization, and self-tuning of plasma reactors;
- AI-assisted material analysis and characterization of plasma-synthesized films, coatings, and nanostructures;
- Inverse design and virtual screening of plasma conditions for material synthesis;
- Digital twins for scale-up, health monitoring, and predictive maintenance.

We welcome fundamental studies, applied research, and industrial case studies that demonstrate how AI accelerates innovation in plasma processing. Both original research articles and comprehensive reviews are encouraged.

Guest Editors

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Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

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