Special Issue

AI in Laser Materials Processing

Message from the Guest Editor

In this Special Issue of *Journal of Manufacturing and Materials Processing* (*JMMP*) , we seek recent advances in AI-enhanced laser materials processing, including innovations in data-driven modeling, in situ monitoring, and adaptive control strategies. We welcome contributions that address fundamental and applied research aimed at improving process understanding, enhancing material performance, and expanding the capabilities of laser-based manufacturing techniques. We are particularly interested in research topics such as:

- AI-driven process optimization for laser cutting, welding, drilling, and additive manufacturing.
- Machine learning for real-time monitoring and defect detection in laser processing.
- Predictive modeling and digital twins for laser–material interactions.
- AI-enhanced control strategies for adaptive and autonomous laser machining.
- Data-driven insights into material behavior and process dynamics in laser processing.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Journal of Manufacturing and Materials Processing (*JMMP*)(ISSN 2504-4494) is a new MDPI peer-reviewed, open access venue with a focus on the scientific fundamentals and engineering methodologies of manufacturing and materials processing. We offer an online platform facilitating effective exchange of innovative scientific and engineering ideas and the dissemination of recent, original, and significant research and developmental findings. On behalf of the Editorial Board, I extend an invitation to our scientific and engineering colleagues to contribute high-quality, innovative, and ground-breaking research articles to *JMMP.*

Editor-in-Chief

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