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Special Issue Reprint

Laser Assisted Manufacturing

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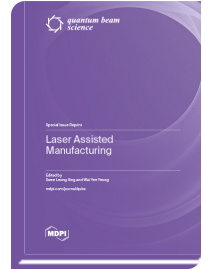
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Lasers play integral roles in many manufacturing techniques, such as laser-based powder bed fusion for metals (PBF-L/M), additive manufacturing (AM), and 3D printing. In this reprint of the Special Issue titled “Laser Assisted Manufacturing”, nine articles are collated, highlighting the ongoing research efforts in this area. In their article, Pasang et al. investigated the use of a blue diode laser in the welding of titanium foils. Parfenov et al. studied the use of a laser for the cleaning and preservation of books and documents, as well as laser scanning and 3D printing for preservation efforts in heritage artefacts. In the area of conservation, Ruzankina et al. also looked into the laser treatment of monuments made from iron-based alloys. Confalonieri et al. explored the use of different process parameters in PBF-L/M of aluminium alloys, while Tajyar et al. used finite element analysis for the laser peening of these alloys. Finally, in their reviews, Kaligar et al. looked into a femtosecond laser applied in AM, Bachmann summarised the use of lasers in metal bending for rapid prototyping, and Aminzadeh analysed the use of process monitoring for a laser welding process.



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