



Solar-Pumped Lasers and Sustainable Laser Beams: Current and Future Development

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Deadline for manuscript
submissions:

14 November 2024

Message from the Guest Editors

Laser technology is widely used in several industrial and scientific areas, such as laser material processing, the medical industry, energy production, communications and space applications.

Solar-pumped lasers, being a sustainable source of coherent optical radiation, offer the prospect of a drastic reduction in the cost for high and average laser power applications, opening pathways to environmental and economical benefits in different technological segments, such as green hydrogen production and renewable energy cycles.

The main current and future challenges of sustainable laser beams are to increase the efficiency, versatility and scalability compared with other classical, fossil-fuel-based laser beams, as a more robust and available implementation, suitable for different fields of low-carbon industry and poligeneration.





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