Special Issue

New Frontiers in Laser Welding

Message from the Guest Editor

Laser welding is a precision welding process that enables high processing speed and low distortion due to low heat input into the base materials. It has been applied in various industries (e.g., automotive, electronics, etc.), but in its early states, it was mainly used for thin steel sheets. With the advances of power sources and optic technologies, new laser welding applications are being continuously introduced. Multi-kW fiber and disk lasers have been successfully applied to the welding of thick plates and nonferrous alloys due to the possibility for deep penetration and high absorptivity. More recently, the use of hard-to-weld material combinations has been continuously increasing in industrial applications, and innovative laser welding technologies are emerging to meet the requirements of these materials.

This Special Issue invites original review articles on recent advances in the development of innovative laser welding technologies based on new laser power sources, laser optics, systems, and monitoring technologies.

Guest Editor

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Optics (ISSN 2673-3269) aims at establishing *Optics* as a leading journal for publishing high impact fundamental research and applications in optics field with a fast processing time and high quality service. The journal particularly welcomes both theoretical (simulation) and experimental research within our journal's scope. We encourage scientists to publish their experimental and theoretical results in as much detail as possible. So, there is no restriction on the length or pages of the papers. The full experimental details must be provided so that the results can be reproduced. Electronic files and software regarding the full details of the calculation or experimental procedure, if unable to be published in a normal way, can be deposited as supplementary electronic material.

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