

## Hybrid welding of dissimilar metals

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### Abstract

© Published under licence by IOP Publishing Ltd. The article addresses issues laser - plasma welding (LPW) dissimilar metals and the results of metallographic studies of the microstructure of welds ferrite - 40 steel and molybdenum - steel 40. Increasing potential opportunities the high-energy processing is carried out by integration the laser radiation (LR) and plasma, which allows you to create the desired spatial distribution of the energy flow for technological processes (TP) of laser-plasma heat treatment (LPT) of metals. The distribution of the thermal field is determined by the density distribution of energy flow LR and plasma exposure time, and the thermal characteristics of the treated metal. The most interesting is the treatment of details with ring flow of plasma and LR axial impact.

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