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## Analysis of high-power diode laser thermal properties by micro-Raman spectroscopy

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### Keywords

Raman spectroscopy, catastrophic optical mirror damage (COMD), high-power laser, thermoreflectance

### Abstract

Spatially resolved micro-Raman measurements have been performed to determine temperature distribution over the facet of high power semiconductor diode lasers. This technique is non-invasive and allows one to study the local temperature on the surface of the mirror of semiconductor diode lasers under normal operating conditions. The micro-Raman measurements can also serve as a calibration of absolute temperature for the other contact-less thermometric methods, *e.g.*, thermoreflectance.



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