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Determining Heat-Transfer Coefficients of Solid Objects by Laser Photothermal IR Radiometry

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Abstract
—A simple method for determining heat-transfer coefficients of solid objects is proposed that is based on direct measurement of the sample surface temperature dynamics. The object is probed by a laser beam with preset temporal variation of the radiation power, and the thermal response is detected by photodiodes operating in the mid-IR spectral range without forced cooling.
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