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Titolo	Lock-in Thermography : Basics and Use for Evaluating Electronic Devices and Materials // by Otwin Breitenstein, Wilhelm Warta, Martin C. Schubert
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Disciplina	621.381
Soggetti	Lasers Photonics Materials science Microwaves Optical engineering Structural materials Optics, Lasers, Photonics, Optical Devices Characterization and Evaluation of Materials Microwaves, RF and Optical Engineering Structural Materials
Lingua di pubblicazione	Inglese
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Nota di contenuto	Introduction -- Physical and Technical Basics -- Experimental Technique -- Theory -- Measurement Strategies -- Typical Applications -- Summary and Outlook. .
Sommario/riassunto	This book discusses lock-in thermography (LIT) as a dynamic variant of the widely known IR thermography. It focuses on applications to electronic devices and materials, but also includes chapters addressing non-destructive evaluation. Periodically modulating heat sources allows a much-improved signal-to-noise ratio (up to 1000x) and a far better lateral resolution compared to steady-state thermography. Reviewing various experimental approaches to LIT, particularly the commercial LIT systems available, this 3rd edition introduces new LIT applications,

such as illuminated LIT applied to solar cells, non-thermal LIT lifetime mapping and LIT application to spin caloritronics problems. Numerous LIT investigation case studies are also included.
