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Descrizione fisica	x, 180 p
Collana	Materials forming, machining and tribology
Altri autori (Persone)	YilbasBekir S
Disciplina	670
Soggetti	Lasers in engineering Lasers - Industrial applications
Lingua di pubblicazione	Inglese
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Nota di contenuto	Introduction.- Equilibrium Laser Pulse Heating and Thermal Stress Analysis -- Analytical Solution of Cattaneo and Thermal Stress Equations -- Analytical Treatment of Hyperbolic Equations for Stress Analysis -- Concluding Remarks.
Sommario/riassunto	This book introduces laser pulse heating and thermal stress analysis in materials surface. Analytical temperature treatments and stress developed in the surface region are also explored. The book will help the reader analyze the laser induced stress in the irradiated region and presents solutions for the stress field. Detailed thermal stress analysis in different laser pulse heating situations and different boundary conditions are also presented.