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Nota di contenuto	Introduction to Polymer Science -- Contemporary Issues on Thermoplastics Welding -- Polymer Welding Techniques -- Ultrasonic Welding of Polymers -- Characterization Adopted for Polymer Welding -- Case Studies -- Data Acquisition and Optimization Techniques for USW -- Conclusions -- Appendix.
Sommario/riassunto	This book offers a systematic overview of polymer joining and highlights the experimental and numerical work currently being pursued to devise possible strategies to overcome the technical issues. It also covers the fundamentals of polymers, the corresponding joining processes and related technologies. A chapter on the extrapolation of finite element analysis (FEA) for forecasting the deformation and temperature distribution during polymer joining is also included. Given its breadth of coverage, the book will be of great interest to researchers, engineers and practitioners whose work involves polymers.