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Nota di contenuto	Chapter 1.Titanium and Titanium Alloy -- Chapter 2.Principles of Superplastic Forming/Diffusion Bonding -- Chapter 3. Typical Structure Forming and Process Quality Control -- Chapter 4. Microstructure and Properties of Superplastic Forming/Diffusion Bonding Process -- Chapter 5. Test Methods of Superplastic Forming/Diffusion Bonding Structure -- Chapter 6. Design and Evaluation Method of Superplastic Forming/Diffusion Bonding Structure.
Sommario/riassunto	This book provides a comprehensive illustration to the superplastic forming/diffusion bonding (SPF/DB) technology developed over decades of research on titanium alloys, process modeling, and its application. SPF/DB technology plays key roles in building aviation components with complicated structures, with highly beneficial effects when well designed. With the ever-increasing demand on components with multiple layers, there is an urgent need for an updated assessment of traditional and modern SPF/DB processing methods. Success critically depends on making the most practical and effective choice of SPF/DB method for a given application. The book introduces titanium and titanium alloys, SPF/DB processing and its modeling, and applications for building typical single or multiple layer(s) structures. Particular attention is paid to illustrating the microstructure evolution

during SPF/DB processes. The information for making technical decisions about optimal choice of measurement and evaluation methods is also given in the book. Each chapter follows a focused and pragmatic format. Fully illustrated throughout, the book presents the state of the art in SPF/DB technology in a manner that makes it useful for engineers to improve the established forming processes and quality of components. This book is an essential reading material for industrial practitioners, academic researchers and postgraduates.
