Record Nr. UNINA9910725079303321 Autore Li Yajiang **Titolo** Joining Technology and Application of Advanced Materials [[electronic resource] /] / by Yajiang Li Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2023 Pubbl/distr/stampa **ISBN** 9789811996894 9789811996887 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (473 pages) Collana Advanced and Intelligent Manufacturing in China, , 2731-5991 Disciplina 620.118 Soggetti **Building materials** Manufactures Ceramic materials Composite materials Structural Materials Machines, Tools, Processes Ceramics Composites Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction -- Overview -- Joining of Advanced Ceramics -- Diffusion Bonding of Composite Ceramics to Steels -- Joining of Ni-Al and Ti-Al Intermetallic Compounds -- Joining of Fe-Al Intermetallic Compounds -- Welding of Laminated Materials -- Welding of Advanced Composites -- Joining of Functional Materials. The book focuses on joining of advanced materials such as ceramics, Sommario/riassunto intermetallics, laminated materials, composite materials and functional materials considering both in theory and in practice. It also covers details of joint design, weldability and quality assurance of the product. Both principles and engineering practice have been addressed to show

advanced, scientific and novelty features. The latest research on advanced joining technology is one of the major features of the book, which is particularly suited for readers who are interested to learn practical solutions in joining of advanced materials. The book can benefit researchers, engineers and graduate students in the fields of

joining, materials design and manufacturing, etc. This book is a translation of an original German edition. The translation was done with the help of artificial intelligence (machine translation by the service DeepL.com). A subsequent human revision was done primarily in terms of content, so that the book will read stylistically differently from a conventional translation.