

1. Record Nr.	UNINA9910688260203321
Titolo	Engineering Principles : Welding and Residual Stresses / / edited by Kavian Cooke, Ronaldo Camara Cozza
Pubbl/distr/stampa	London : , : IntechOpen, , 2022
Descrizione fisica	1 online resource (338 pages) : illustrations
Disciplina	621
Soggetti	Mechanical engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Sommario/riassunto	<p>Over the last decade, there has been substantial development of welding technologies for joining advanced alloys and composites demanded by the evolving global manufacturing sector. The evolution of these welding technologies has been substantial and finds numerous applications in engineering industries. It is driven by our desire to reverse the impact of climate change and fuel consumption in several vital sectors. This book reviews the most recent developments in welding. It is organized into three sections: "Principles of Welding and Joining Technology," "Microstructural Evolution and Residual Stress," and "Applications of Welding and Joining." Chapters address such topics as stresses in welding, tribology, thin-film metallurgical manufacturing processes, and mechanical manufacturing processes, as well as recent advances in welding and novel applications of these technologies for joining different materials such as titanium, aluminum, and magnesium alloys, ceramics, and plastics.</p>