1. Record Nr. UNINA9910778686403321 Autore DuPont John N. <1964-> Titolo Welding metallurgy and weldability of nickel-base alloys [[electronic resource] /] / John DuPont, John C. Lippold, Samuel D. Kiser Hoboken, N.J., : John Wiley & Sons, c2009 Pubbl/distr/stampa **ISBN** 1-118-21003-4 1-282-34629-6 9786612346293 0-470-50026-3 0-470-50021-2 Descrizione fisica 1 online resource (456 p.) Altri autori (Persone) KiserSamuel D. <1945-> LippoldJohn C Disciplina 673/.733252 Soggetti Nickel - Welding Nickel - Metallurgy Nickel alloys - Welding Nickel alloys - Metallurgy Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di contenuto WELDING METALLURGY AND WELDABILITY OF NICKEL-BASE ALLOYS: CONTENTS; Preface; 1. Introduction; 2. Alloying Additions, Phase Diagrams, and Phase Stability: 3. Solid-Solution Strengthened Ni-base Alloys: 4. Precipitation-Strengthened Ni-base Alloys: 5. Oxide Dispersion Strengthened Alloys and Nickel Aluminides; 6. Repair Welding of Ni-base Alloys; 7. Dissimilar Welding; 8. Weldability Testing; Appendix A Composition of Wrought and Cast Nickel-Base Alloys; Appendix B Composition of Nickel and Nickel Alloy Consumables; Appendix C Corrosion Acceptance Testing Methods Appendix D Etching Techniques for Ni-base Alloys and WeldsAuthor Index; Subject Index Sommario/riassunto The most up-to-date coverage of welding metallurgy aspects and weldability issues associated with Ni-base alloys Welding Metallurgy

and Weldability of Nickel-Base Alloys describes the fundamental

metallurgical principles that control the microstructure and properties of welded Ni-base alloys. It serves as a practical how-to guide that enables engineers to select the proper alloys, filler metals, heat treatments, and welding conditions to ensure that failures are avoided during fabrication and service. Chapter coverage includes:Alloying additions, phase diagrams, and phase stab