Record Nr. UNINA9910465143703321 Light metal and their alloys III: technology, microstructure and **Titolo** properties / / edited by Anna J. Dolata and Maciej Dyzia Pubbl/distr/stampa Durnten-Zurich:,: Trans Tech Publications,, [2014] ©2014 **ISBN** 3-03826-337-0 Descrizione fisica 1 online resource (163 p.) Collana Solid state phenomena; ; volume 211 Altri autori (Persone) DolataAnna J DyziaMaciej Disciplina 620.16 Soggetti Light metals Alloys Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Light Metal and their Alloys III; Introduction and Announcement; Table of Contents; Chapter 1: Aluminium and Aluminium Alloys; Proeutectic Crystallisation of AlSi17Cu5 Alloy after Overheating and Modification with Al-CuP Master Alloy; Effect of Overheating on the Mechanical and Plastic Properties of A390.0 Cast Alloy; Welding of Aluminium Alloy Thin Sheets Using Variable Polarity MIG Method; Effect of Ti Addition to Zn Filler Metal on Wettability and Reinforcement of Soldered Joint of Aluminum; CMT Robotized Welding of Thin-Walled Joints Made of 7xxx Series Aluminium Alloy Effect of Electrode Negative Ratio in AC MIG Welding of Aluminium Alloy 6082 on the Microstructure and Properties of Heat Affected ZoneHybrid Comopsites Shaped by Casting Methods; Fine Particle Reinforced Composites Obtained by Suspension Method: Assessment of the Deformation of Composites with Aluminum Matrix Designed for the

Metal Forming; Chapter 2: Magnesium and Magnesium Alloys; The Microstructure of Elektron21 and WE43 Magnesium Casting Alloys after Subsequent Melting Process Operations; The Quality of Produced Sand-

The Microstructural Changes after Thermal Shock Applied on Elektron

Cast Engine Block Made from Elektron 21 Magnesium Allov

21 Magnesium AlloyHigh-Cycle Fatigue Life of AZ31 and AZ61 Magnesium Alloys; Investigation of Stress Corrosion Cracking in Magnesium Alloys; Potentiodynamic Tests of Magnesium Alloy AZ31 with Lithium Additive; Microstructure of WE43 Magnesium Matrix Composite Reinforced Ceramic Particles; Microstructure of Magnesium Alloy ZRE1 Glassy Carbon Composite Interface; Chapter 3: Titanium and Titanium Alloys; Aluminium Evaporation from Titanium Alloys in the VIM Process

Multi-Stage Heat Treatment of Second Generation TiAl Based AlloysDiffusion Vacuum Brazing of TiAl48Cr2Nb2 Casting Alloys Based on TiAl () Intermetallic Compound Using Ag-Cu-Ti Braze Alloy; The Stress Effects Occurring During Induction Heating of Titanium; Keywords Index; Authors Index

Sommario/riassunto

The issue collects papers presentingmost current results of research in the scope of light metal alloys. That volume include three chapters: I - aluminium alloys, II - magnesium alloys and III - titanium alloys. Chapter I presents subjects related to manufacturing of aluminum alloys, grain refinement and welding joints. The chapter presents also result of investigations concerning methods of obtaining and properties of aluminium matrix composites. Chapter II contain papers presenting the results of researches carried out on conventional and new casting magnesium alloys. The first group of arti