1. Record Nr. UNINA9911007046103321 Autore Pramanik Alokesh Materials for Modern Technologies VII Titolo Pubbl/distr/stampa Zurich:,: Trans Tech Publications, Limited,, 2021 ©2021 **ISBN** 9781523145508 1523145501 9783035738636 3035738637 Edizione [1st ed.] Descrizione fisica 1 online resource (215 pages) Collana Materials Science Forum ; ; v.Volume 1026 Altri autori (Persone) ElnasharElsayed Soggetti Materials science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Intro -- Materials for Modern Technologies VII -- Preface -- Table of Nota di contenuto Contents -- Chapter 1: Metallurgical Technologies and Metal Materials Processing -- Comparison of the Microstructure and Mechanical Properties of Ti-3573 and Ti-3873 Alloys after Cold Rolling and Aging Treatment -- Analysis and Improvement of out of Round Grinding Ball -- Effect of Different Cold Rolling Reduction on the Microstructure and Mechanical Properties of Ti-3573 Titanium Alloy -- Fatigue Crack Growth and Precipitation Characteristics of a High Zn-Containing Al-Zn-Mg-Cu Alloy with Various Typical Aging States -- Optimization and Prediction of Machining Responses Using Response Surface Methodology and Adaptive Neural Network by Wire Electric Discharge Machining of Alloy-X -- Molecular Dynamics Simulation Study of the

Effect of Ni, Fe, Cu on Cryolite Molten Salt System 78% Na3AlF6-9.5% AlF3-5.0%CaF2-7.5%-Al2O3 -- Effect of Annealing Temperature on the Microstructure of 2195 Al-Li Alloy Sheet -- Design and Analysis of Hot Forming Parts with Extra Thick Specification -- Correlation among Microstructure, Texture, and Properties along the Thickness Direction in As-Hot-Rolled and As-Solution-Quenched Al7055 Thick Plates -- Effect of Combined Pre-Straining and Pre-Aging on the Precipitation

Behavior and Age Hardening Response for Al-Mg-Si Alloys --

Mechanical Properties and Microstructure Evolution of Typical Over-Aging State Al-Zn-Mg-Cu Alloy during Thermal Exposure -- DFT and HAADF-STEM Investigations of the Zn Effects on Phase Structure in a Zn Added Al-Mg-Si-Cu Alloy -- Processing of Agglomerates and Pellets Containing Various Amounts of Titanium Dioxide -- Prediction and Measurement of Quenching and Pre-Stretching Stress in 7050 Aluminum Alloy Thick Plate -- Chapter 2: Polymers, Composites, Ceramics and Functional Materials.

Research on Preparation and Morphology of GO and GO/Fe3O4 Composite -- Study on the Inner-Lined Layers Bonding Strength at Different Temperatures of the Ceramic-Lined Tubing Prepared by the Centrifugal-SHS Method -- Degassing Process Influence on Tensile Strength of Neat E132 Epoxy Polymeric Materials -- Study on Biodegradability of Xenobiotic Polymer with Numerical Simulation Based on Experimental Outcome -- Simulation and Optimization of C60-Based Organic Light-Emitting Diodes -- Performance of Graphene Nanopowder with Deionised Water in EDM Process -- Chapter 3: Coatings and Tribology -- Study on Coating Material and Preparation Technology of Aluminum Alloy Tube by Low Temperature Self-Propagating Molding -- Study on the Microstructure of Anti-Corrosion and Wear Resistant Coating on the Inner Wall of Equipment Pipeline and the Synthesis Mechanism of Ceramic Coating -- Wear Experiment and Influencing Factors Analysis of 13Cr-L80 Tubing String in High-Pressure, High-Temperature and High-Yield Gas Wells -- Chapter 5: Methods of Properties Measurement and Materials Testing -- The Application of Ethyl A-Cyanoacrylate in the Early Stage of Geological Experiment -- Using New Technology Material to Make Inclusion Sheet -- Novel Electrochemical-Emission Spectroscopy of Metals by White Light Interferometry -- Synthesis of Alloyed Au-Ag Nanospheres with Tunable Compositions and SERS Enhancement Effects -- Keyword Index -- Author Index.

Sommario/riassunto

Selected peer-reviewed full text papers from the 10th Spring International Conference on Material Sciences and Technology (MST-S 2021) Selected, peer-reviewed papers from the 2021 Spring International Conference on Material Sciences and Technology (MST-S), April 20-22, 2021, Xi'an, China.