Primary Production, Recycling and Environmental Issues
Session Chair
Simulation of Atmospheric Environments for Storage and Transport of Magnesium and Its Alloys
Literature Review on Magnesium Recycling
Nb-Doped TiO2 Inert Anodes for Electrolytic Production of Magnesium Metal
Study on the Protecting Effect of HFC134a on AZ91D Magnesium Alloy in a Sealed Melting Furnace
The Physical Chemistry of the Carbothermic Route to Magnesium
Thermal De-Coating of Magnesium - A First Step Towards Recycling of Coated Magnesium

Magnesia Solubility in the LaCl3-MgCl2 System
Casting and Solidification I
Session Chair
Microsegregation and Microstructure in Directionally Solidified Mg4Al, Mg5Al3Ca and AXJ530 Alloys
Experimental Study of Vacuum Die Casting Process of AZ91D Magnesium Alloy
Hot Cracking Susceptibility of Binary Mg-Al Alloys
Phase Equilibria of Mg-Al-Ca Ternary System at 773 and 673 K
Preliminary Investigation on the Grain Refinement Behavior of ZrB2 Particles in Mg-Al Alloys
Microstructure and Mechanical Properties of Permanent Mold Cast Mg - 4 Al - 4 (Ca, Ce, La, or Sr) Ternary Alloys
Phenomena of Formation of Gas Induced Shrinkage Porosity in Pressure Die-Cast Mg-Alloys
The Road to 2020: Overview of the Magnesium Casting Industry Technology Roadmap
Casting and Solidification II
Session Chair
Characterization of Local Cavity Pressures in Squeeze Casting of Magnesium Alloy AM50A
Effect of Power Ultrasound on Grain Refinement of Magnesium AM60B Alloy
Heat Treatment and Mechanical Properties of a Rheocast Magnesium Alloy
Microstructural Refinement of Magnesium Alloy by Electromagnetic Vibrations
Microstructure and Mechanical Properties of Die Cast Magnesium Alloy AM50 with Varying Section Thicknesses
On Liquidus and Solidus Temperatures in AZ and AM Alloys
Vertical Direct Chill (VDC) Casting of a Novel Magnesium Wrought Alloy with Zr and Re Additions (ZK10): Alloying Issues
Warm Water Scale Model Experiments for Magnesium Die Casting
Wrought Alloys and Forming Processes I
Session Chair
A Study on the Static Recrystallization of Cold Rolled Magnesium Alloy AZ80
The High Strain Rate Deformation Behavior of High Purity Magnesium and AZ31B Magnesium Alloy
Deformation of O-Temper AZ31B Mg Sheet Under Monotonic and Cyclic Loading
A Study of Damping Capacities of Mg-Zr Alloys After Hot Rolling and Annealing
Direct Chill Casting and Plastic Deformation of Magnesium Alloys
Effects of Microstructural Changes of AZ31 Magnesium Alloy on Its Tensile Properties Up to Localized Necking
Wrought Alloys and Forming Processes II
Session Chair
Development of CaO Added Wrought Mg Alloy for Cleaner Production
Development of Thixoextrusion Process for AZ31 Magnesium Wrought Alloy
Effect of Strain Rate on Deformation Behaviour of a Mg-9Li-2Zn Alloy Sheet at Room Temperature
High-Speed Heavy Rolling of Magnesium Alloy Sheets
Hot Rolling and Deep Drawing of AM50 Sheet
Wrought Alloys and Forming Processes III
Session Chair
Low Temperature Hydrostatic Extrusion of Magnesium Alloys
Effect of Twinning on the Mechanical Behavior of a Magnesium Alloy Sheet During Strain Path Changes
Microstructure Evolution During Hot Rolling of Magnesium Alloy AZ31 Strip
Microstructure and Texture Evolution During the Uniaxial Tensile Testing of AM30 Magnesium Alloy
Numerical Modelling of Large Strain Deformation in Magnesium
Development and Validation of an Extrusion Limit Diagram for AZ31 Magnesium Alloy
Warm Formability and Plastic Anisotropy of AZ31B Mg Sheets
High Internal Pressure Forming of Magnesium Tubes
Welding and Joining
Session Chair
Effect of Grain Refinement on the Strength and Corrosion of AZ31 Magnesium Alloy Following Severe Plastic Deformation
Micro-Alloying of Magnesium Wrought Alloys for Improved Electro-Magnetic Joining of Extruded Hollow Profiles
Corrosion and Coatings
Session Chair
Conversion Coating Treatment for AZ31 Alloy in a Permanganate-Phosphate Solution
Corrosion Behavior and Microstructure of a Broad Range of Mg-Sn-X Alloys
Corrosion Behaviors of Polyaniline Electrodeposited on AZ91 Magnesium Alloys in Alkaline Solutions
Electroless Nickel-Phosphorus Plating on AZ31 Magnesium Alloy Pretreated with a Chemical Conversion Coating
Sacrificial Magnesium Film Anode for Cathodic Protection of Die Casting AZ91D Alloy

Selected Etching Surface Treatment for Improving the Corrosion Resistance of Die Cast AZ91D Thin Plate
Corrosion Behaviour of Electroless Nickel Plating on AZ91 Magnesium Alloy
Corrosion Behavior of Pure Magnesium in Sodium Sulfate Solution
Automotive and Other Applications

Session Chair

AM-HP2: A New Magnesium High Pressure Diecasting Alloy for Automotive Powertrain Applications

Wrought Magnesium Research for Automotive Applications

Fabrication of Carbon Long Fibre Reinforced Magnesium Parts in High Pressure Die Casting

Machining of Hybrid Reinforced Mg-MMCs Using Abrasive Water Jetting

The Influence of Mechanical Activation on the Process of Thermal Reduction of Silica by Magnesium Powder

Synthesis of Magnesium Diboride Powder by Self-Propagating High-Temperature Surface Cladding of Magnesium Alloy Castings Using Nd:YAG Laser

Microstructure and Properties I

Session Chair

Effect of Hot Torsion Deformation on Microstructure in AZ31 Magnesium Alloy

Creep Transition Behavior of Pure Magnesium Poly and Single Crystals

Precipitation Hardening and Phase Formation in Mg-Sn-Zn-Al-Alloys

The Influence of Y Addition on Precipitation Sequence in a Mg-Zn-Sn Based Alloy

Microstructure and Properties II

Session Chair

Effect of Grain Size and Texture on Fracture Toughness in Magnesim and Magnesium-Aluminum-Zinc (AZ31) Alloy

Fatigue Behavior of High-Pressure Die-Cast Magnesium Alloys

Tensile Fracture Characteristics of Die Cast Magnesium Alloy AM60B Determined from High-Resolution X-Ray Tomography

Mechanical Behavior of Wrought Mg-Zn-Y(-Mm) Alloys

Study of Rolling, Heat Treatment Characteristics and Mechanical Properties of Superlight Mg-Li-Zn Alloys

The Microstructure, Tensile, and Creep Behavior of Mg-Zn Alloys Ranging from 0-4.4wt.%Zn

Thermodynamics and Fundamental Research

Session Chair

Finite-Temperature Thermodynamic Properties of Intermetallics in the Mg-Ca-Sn System Via First-Principles Methods

Investigation of the Mg-Rich Portion of the Mg-In-Ce Ternary System

Study of Phase Equilibria in Magnesium-Cerium Binary System Via the Diffusion Couple Technique

Study of Thermal Evolution of the Mg Solid Solution in the Mg-Al-Li-Zn System

The Effect of Solute Elements on the Lattice Parameters and Grain Size of Binary Solid Solutions of Magnesium

Thermodynamic Modeling of the Mg-Sn-Zn-Al System and Its Application to Mg Alloy Design

The Dissolution and Recovery of Manganese Additions Into Liquid Magnesium

Two-Stage Thermodynamic Modeling of a Thixoforming Process