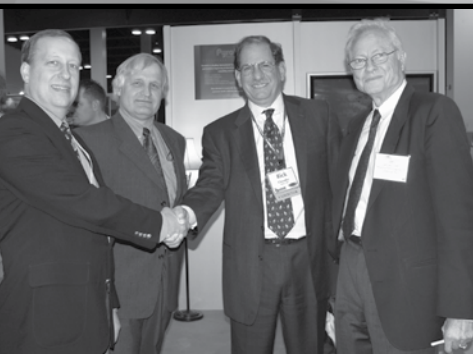


TMS2008

137th Annual Meeting & Exhibition

Linking Science and Technology
for Global Solutions



Technical Program

Program-at-a-Glance	2
Session Listing	8
Sunday PM	13
Monday AM	24
Monday PM.....	65
Tuesday AM.....	113
Tuesday PM	167
Wednesday AM	223
Wednesday PM	268
Thursday AM.....	312
Index	328
Floor Plans/Shuttle Map.....	351

Room	Sunday		Monday		Tuesday		Wednesday		Thursday
	PM	AM	PM	AM	PM	AM	PM	AM	
270			Sloan Industry Centers Forum: Techno-Management Issues Related to Materials-Centric Industries: Session I	Sloan Industry Centers Forum: Techno-Management Issues Related to Materials-Centric Industries: Session II					
271		Micro-Engineered Particulate-Based Materials: Session I		Materials Informatics: Enabling Integration of Modeling and Experiments in Materials Science: Informatics and Materials Property Design	Materials Informatics: Enabling Integration of Modeling and Experiments in Materials Science: Informatics and Combinatorial Experiments and Materials Characterization	Materials Informatics: Enabling Integration of Modeling and Experiments in Materials Science: Informatics and Materials Theory and Modeling	Materials Informatics: Enabling Integration of Modeling and Experiments in Materials Science: Informatics and Cyberinfrastructure		
272		General Abstracts: Extraction and Processing: Session I	General Abstracts: Extraction and Processing: Session II	IOMMMS Global Materials Forum 2008: Creating the Future MS&E Professional	Materials for Infrastructure: Building Bridges in the Global Community: Session I	Materials for Infrastructure: Building Bridges in the Global Community: Session II	The Role of Engineers in Meeting 21st Century Societal Challenges -- AIME Keynote Session		
273	2008 Nanomaterials: Fabrication, Properties, and Applications: Poster Session	2008 Nanomaterials: Fabrication, Properties, and Applications: CNT	2008 Nanomaterials: Fabrication, Properties, and Applications: Nanomaterials Synthesis and Sensor	2008 Nanomaterials: Fabrication, Properties, and Applications: Device	2008 Nanomaterials: Fabrication, Properties, and Applications: Application	2008 Nanomaterials: Fabrication, Properties, and Applications: Processing and Properties	2008 Nanomaterials: Fabrication, Properties, and Applications: Characterization and Theory		
275		Emerging Interconnect and Packaging Technologies: Pb-Free Solders: Fundamental Properties, Interfacial Reactions and Phase Transformations	Emerging Interconnect and Packaging Technologies: Pb-Free and Sn-Pb Solders: Electromigration	Emerging Interconnect and Packaging Technologies: Advanced Interconnects	Emerging Interconnect and Packaging Technologies: Pb-Free Solder: Tin Whisker Formation and Mechanical Behavior	Emerging Interconnect and Packaging Technologies: Pb-Free Solders: Reliability and Microstructure Development	Emerging Interconnect and Packaging Technologies: Pb-Free Solders and Other Interconnects: Microstructure, Modeling, and Test Methods		
276		Hume-Rothery Symposium - Nanoscale Phases: Session I	Hume-Rothery Symposium - Nanoscale Phases: Session II	Hume-Rothery Symposium - Nanoscale Phases: Session III	Hume-Rothery Symposium - Nanoscale Phases: Session IV	General Abstracts: Electronic, Magnetic, and Photonic Materials Division: Session I	General Abstracts: Electronic, Magnetic, and Photonic Materials Division: Session II		

Sunday	Monday		Tuesday		Wednesday		Thursday	Room
PM	AM	PM	AM	PM	AM	PM	AM	
	Complex Oxide Materials - Synthesis, Properties and Applications: ZnO Nanostructures and Thin Films	Complex Oxide Materials - Synthesis, Properties and Applications: Novel Functionality from Complex Oxide Heterointerfaces	Complex Oxide Materials - Synthesis, Properties and Applications: Functionally Cross-Coupled Heterostructures	Complex Oxide Materials - Synthesis, Properties and Applications: Epitaxial Oxides: Ferroelectric, Dielectric, and (Electro-)Magnetic Thin Films	Complex Oxide Materials - Synthesis, Properties and Applications: Scaling, Dynamics, and Switching	Complex Oxide Materials - Synthesis, Properties and Applications: Ferroelectric/ Dielectric Oxides		277
	Advances in Semiconductor, Electro Optic and Radio Frequency Materials: Silicon-Based Optoelectronics and Microelectronics	Advances in Semiconductor, Electro Optic and Radio Frequency Materials: Compound Semiconductors and Beyond	Phase Stability, Phase Transformations, and Reactive Phase Formation in Electronic Materials VII: Session I	Phase Stability, Phase Transformations, and Reactive Phase Formation in Electronic Materials VII: Session II	Phase Stability, Phase Transformations, and Reactive Phase Formation in Electronic Materials VII: Session III	Phase Stability, Phase Transformations, and Reactive Phase Formation in Electronic Materials VII: Session IV		278
	Mechanics and Kinetics of Interfaces in Multi-Component Materials Systems: Mechanics of Adhesion, Friction and Fracture	Mechanics and Kinetics of Interfaces in Multi-Component Materials Systems: Nanoscale Structures and Simulations	Mechanics and Kinetics of Interfaces in Multi-Component Materials Systems: Mechanical Properties of Interfaces	Mechanics and Kinetics of Interfaces in Multi-Component Materials Systems: Interfacial Microstructures and Effects on Mechanical and Physical Properties	Mechanics and Kinetics of Interfaces in Multi-Component Materials Systems: Joint Session with Advances in Semiconductors, Electro Optic and Radio Frequency Materials			279
	Recent Developments in Rare Earth Science and Technology - Acta Materialia Gold Medal Symposium: Session I	Recent Developments in Rare Earth Science and Technology - Acta Materialia Gold Medal Symposium: Session II	Recycling: Electronics Recycling	Recycling: Micro-Organisms for Metal Recovery	Recycling: Light Metals	Recycling: General Sessions		280
		9th Global Innovations Symposium: Trends in Integrated Computational Materials Engineering for Materials Processing and Manufacturing: Session I	9th Global Innovations Symposium: Trends in Integrated Computational Materials Engineering for Materials Processing and Manufacturing: Session II	Aqueous Processing - General Session: Aqueous Processing General Abstracts				281
	General Abstracts: Materials Processing and Manufacturing Division: Solidification and Casting	General Abstracts: Materials Processing and Manufacturing Division: Composition Structure Property Relationships I	General Abstracts: Materials Processing and Manufacturing Division: Composition Structure Property Relationships II	General Abstracts: Materials Processing and Manufacturing Division: Films, Coatings, and Surface Treatments	General Abstracts: Materials Processing and Manufacturing Division: Forging, Forming, and Powder Processing			282

	Sunday		Monday		Tuesday		Wednesday		Thursday
	PM	AM	PM	AM	PM	AM	PM	AM	
283		Materials Processing Fundamentals: Solidification and Deformation	Materials Processing Fundamentals: Process Modeling	Materials Processing Fundamentals: Powders, Composites, Coatings and Measurements	Materials Processing Fundamentals: Smelting and Refining	Pyrometallurgy - General Sessions: Pyrometallurgy			
284		Characterization of Minerals, Metals, and Materials: Emerging Characterization Techniques	Characterization of Minerals, Metals, and Materials: Characterization of Extraction and Processing	Characterization of Minerals, Metals, and Materials: Characterization of Microstructure and Properties of Materials I	Characterization of Minerals, Metals, and Materials: Characterization of Microstructure and Properties of Materials II	Characterization of Minerals, Metals, and Materials: Characterization of Microstructure and Properties of Materials III	Characterization of Minerals, Metals, and Materials: Characterization of Microstructure and Properties of Materials IV	Characterization of Minerals, Metals, and Materials: Characterization of Microstructure and Properties of Materials V	
285		Emerging Methods to Understand Mechanical Behavior: Imaging Methods: TEM, SEM, AFM and Moire	Emerging Methods to Understand Mechanical Behavior: Digital Image Correlation Methods	Emerging Methods to Understand Mechanical Behavior: Indentation and Time-Resolved Methods	Emerging Methods to Understand Mechanical Behavior: Subscale Methods: Tension and Compression	Emerging Methods to Understand Mechanical Behavior: Diffraction Methods: Electron and Neutron	Emerging Methods to Understand Mechanical Behavior: Synchrotron X-Ray		
286		3-Dimensional Materials Science: ONR/DARPA Dynamic 3-D Digital Structure Program	3-Dimensional Materials Science: Large Datasets and Microstructure Representation I	3-Dimensional Materials Science: Large Datasets and Microstructure Representation II	3-Dimensional Materials Science: Modeling and Characterization across Length Scales I	3-Dimensional Materials Science: Modeling and Characterization across Length Scales II	3-Dimensional Materials Science: Modeling and Characterization across Length Scales III	3-Dimensional Materials Science: Modeling and Characterization across Length Scales IV	
287		Recent Industrial Applications of Solid-State Phase Transformations: Superalloys and TRIP Steels/ Automotive Steels	Recent Industrial Applications of Solid-State Phase Transformations: Alloy Design, Microstructure Prediction and Control	Frontiers in Process Modeling: Metallurgical Reactors - and - Frontiers in Process Modeling: Casting and General Modeling		Energy Conservation in Metals Extraction and Materials Processing: Session I	Energy Conservation in Metals Extraction and Materials Processing: Session II		
288	Computational Thermodynamics and Kinetics: Poster Session	Computational Thermodynamics and Kinetics: Defect Structure I	Computational Thermodynamics and Kinetics: Defect Structure II	Computational Thermodynamics and Kinetics: Phase Field Crystal	Computational Thermodynamics and Kinetics: Functional Materials	Computational Thermodynamics and Kinetics: Phase Transformations	Computational Thermodynamics and Kinetics: Integrated Computational Materials Engineering	Computational Thermodynamics and Kinetics: Diffusion and Phase Stability	
291		Magnesium Technology 2008: Magnesium Plenary Session	Magnesium Technology 2008: Wrought Alloys I	Magnesium Technology 2008: Wrought Alloys II	Magnesium Technology 2008: Wrought Alloys III	Magnesium Technology 2008: Advanced Magnesium Materials	Magnesium Technology 2008: Corrosion, Surface Finishing and Joining		
292			Magnesium Technology 2008: Primary Production	Magnesium Technology 2008: Thermodynamics and Phase Transformations	Magnesium Technology 2008: Casting	Magnesium Technology 2008: Alloy Microstructure and Properties	Magnesium Technology 2008: Creep Resistant Magnesium Alloys		
293		Aluminum Alloys: Fabrication, Characterization and Applications: Development and Applications	Aluminum Alloys: Fabrication, Characterization and Applications: Processing and Properties	Aluminum Alloys: Fabrication, Characterization and Applications: Modeling	Aluminum Alloys: Fabrication, Characterization and Applications: Alloy Characterization	Aluminum Alloys: Fabrication, Characterization and Applications: Corrosion and Protection	Aluminum Alloys: Fabrication, Characterization and Applications: Composites and Foams		

Sunday		Monday		Tuesday		Wednesday		Thursday	Room
PM	AM	PM	AM	PM	AM	PM	AM		
			Carbon Dioxide Reduction Metallurgy: Mechanisms	Carbon Dioxide Reduction Metallurgy: Ferrous Industry	Carbon Dioxide Reduction Metallurgy: Electrolytic Methods				294
	Sustainability, Climate Change and Greenhouse Gas Emissions Reduction: Responsibility, Key Challenges and Opportunities for the Aluminum Industry	Cast Shop Technology: Sustainability in the Casthouse	Cast Shop Technology: Casthouse Operation	Cast Shop Technology: Melt Handling and Treatment	Cast Shop Technology: Foundry Ingots and Alloys	Cast Shop Technology: Casting Processes and Quality Analysis	Cast Shop Technology: Modelling		295
		Alumina and Bauxite: HSEC	Alumina and Bauxite: Equipment	Alumina and Bauxite: Bauxite	Alumina and Bauxite: Additives	Alumina and Bauxite: Operations	Alumina and Bauxite: Precipitation/ Conclusion		296
		General Abstracts: Light Metals Division: Session I	General Abstracts: Light Metals Division: Session II	Electrode Technology Symposium (formerly Carbon Technology): Anode Manufacturing and Developments	Hot and Cold Rolling Technology: Session I	Aluminum Reduction Technology: Reduction Cell Modelling			297
		Aluminum Reduction Technology: Sustainability and Environment	Aluminum Reduction Technology: Cell Development Part I and Operations	Aluminum Reduction Technology: Process Control	Aluminum Reduction Technology: Aluminum Industry in Mid-East: Joint Session with Electrode Technology Symposium	Aluminum Reduction Technology: Fundamentals, Low Melting Electrolytes, New Technologies	Aluminum Reduction Technology: Cell Development Part II		298
		Electrode Technology Symposium (formerly Carbon Technology): Carbon Sustainability and Environment Aspects	Electrode Technology Symposium (formerly Carbon Technology): Anode Raw Materials and Properties	Electrode Technology Symposium (formerly Carbon Technology): Cathodes Raw Materials and Properties		Electrode Technology Symposium (formerly Carbon Technology): Cathodes Manufacturing and Developments	Electrode Technology Symposium (formerly Carbon Technology): Inert Anode		299
	Deformation Twinning: Formation Mechanisms and Effects on Material Plasticity: Experiments and Modeling: Twin Formation and Growth Mechanisms	Deformation Twinning: Formation Mechanisms and Effects on Material Plasticity: Experiments and Modeling: Twin Effects on Material Deformation I	Deformation Twinning: Formation Mechanisms and Effects on Material Plasticity: Experiments and Modeling: Twinning and Associated Defect Structures	Deformation Twinning: Formation Mechanisms and Effects on Material Plasticity: Experiments and Modeling: Twin Effects on Material Deformation II					383
	Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Processing: Design, Control and Optimization	Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Phase Transformation and Microstructure Development I	Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Phase Transformation and Microstructure Development II	Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Microstructure/ Property Correlation I	Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Microstructure/ Property Correlation II	Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Physical/ Mechanical Property Prediction			384

Room	Sunday		Monday		Tuesday		Wednesday		Thursday
	PM	AM	PM	AM	PM	AM	PM	AM	
385		Minerals, Metals and Materials under Pressure: New Experimental and Theoretical Techniques in High-Pressure Materials Science	Minerals, Metals and Materials under Pressure: Shock-Induced Phase Transformations and Microstructure	Minerals, Metals and Materials under Pressure: Electronic, Magnetic and Optical Properties of Materials under High Pressure	Minerals, Metals and Materials under Pressure: High Pressure Phase Transitions and Mechanical Properties				
	Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Poster Session	Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Dislocations: Work Hardening, Patterning, Size Effects I	Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: High-temperature Mechanical Properties: Creep, Fatigue and Thermomechanical Fatigue	Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Dislocations: Work Hardening, Patterning, Size Effects II	Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Cyclic Deformation and Fatigue of Metals I	Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Mechanical Properties of Ultrafine-Grained (UFG) Metals I	Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Mechanical Properties of Ultrafine-Grained (UFG) Metals II	Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Cyclic Deformation and Fatigue of Metals II	
386		General Abstracts: Structural Materials Division: Mechanical Behavior of Metals and Alloys	General Abstracts: Structural Materials Division: Mechanical Behavior of Materials	General Abstracts: Structural Materials Division: Structure/Property Relations	General Abstracts: Structural Materials Division: Novel Issues in Materials Processing	General Abstracts: Structural Materials Division: Microstructure/Property Relations in Steel I	General Abstracts: Structural Materials Division: Microstructure/Property Relations in Steel II		
		Enhancing Materials Durability via Surface Engineering: Residual Stress Effects on Durability	Enhancing Materials Durability via Surface Engineering: Steel and Other Alloys Surface Durability	Enhancing Materials Durability via Surface Engineering: Superalloy Surface Durability	Enhancing Materials Durability via Surface Engineering: Novel Surface Durability Approaches - and - National Academies Corrosion Education Study Community Town Hall Meeting	Refractory Metals 2008: Processing	Refractory Metals 2008: Characterization	Refractory Metals 2008: Properties of Refractory Metals	
387		Particle Beam-Induced Radiation Effects in Materials: Metals I	Particle Beam-Induced Radiation Effects in Materials: Metals II	Particle Beam-Induced Radiation Effects in Materials: RIS and Multilayers	Particle Beam-Induced Radiation Effects in Materials: Ceramics and Nuclear Fuel Materials	Particle Beam-Induced Radiation Effects in Materials: Carbides, Semiconductors and Other Non-Metals	Particle Beam-Induced Radiation Effects in Materials: Nanostructures		
		Biological Materials Science: Mechanical Behavior of Biological Materials I	Biological Materials Science: Implant Biomaterials I	Biological Materials Science: Bioinspired Design and Processing	Biological Materials Science: Scaffold Biomaterials	Biological Materials Science: Functional Biomaterials	Biological Materials Science: Mechanical Behavior of Biological Materials II	Biological Materials Science: Implant Biomaterials II	
388		Neutron and X-Ray Studies for Probing Materials Behavior: Resolving Local Structure	Neutron and X-Ray Studies for Probing Materials Behavior: Diffraction at Small Dimensions	Neutron and X-Ray Studies for Probing Materials Behavior: Phase Transitions and Beyond	Neutron and X-Ray Studies for Probing Materials Behavior: Recrystallization	Neutron and X-Ray Studies for Probing Materials Behavior: Stresses/Strains and Structure	Neutron and X-Ray Studies for Probing Materials Behavior: Scattering and Understanding of Materials Properties		
389									
390									
391									

Sunday	Monday		Tuesday		Wednesday		Thursday	Room
PM	AM	PM	AM	PM	AM	PM	AM	
	Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Plenary Session	Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Gas Separation and CO ₂ Capture	Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Solid Oxide Fuel Cells: Metallic Interconnects	Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Metallic Interconnects in SOFCs: Oxidation, Protection Coatings	Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Metallic Interconnects and Sealing in SOFCs	Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: PEM Fuel Cells and Solar Technologies	Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Hydrogen Technologies	392
	Bulk Metallic Glasses V: Structures and Mechanical Properties I	Bulk Metallic Glasses V: Structures and Mechanical Properties II	Bulk Metallic Glasses V: Structures and Modeling I	Bulk Metallic Glasses V: Structures and Mechanical Properties III	Bulk Metallic Glasses V: Glass Forming Ability and Alloy Development	Bulk Metallic Glasses V: Structures and Modeling II	Bulk Metallic Glasses V: Processing and Properties	393
	Structural Aluminides for Elevated Temperature Applications: Applications	Structural Aluminides for Elevated Temperature Applications: Mechanical Behavior	Structural Aluminides for Elevated Temperature Applications: FE and Other Aluminides	Structural Aluminides for Elevated Temperature Applications: Processing and Microstructure Control	Structural Aluminides for Elevated Temperature Applications: Phase and Microstructure Evolution	Structural Aluminides for Elevated Temperature Applications: New Class of Gamma Alloys - and - Poster Session	Structural Aluminides for Elevated Temperature Applications: Environmental Effects and Protection	394
	Ultrafine-Grained Materials: Fifth International Symposium: Modeling, Theory, and Property	Ultrafine-Grained Materials: Fifth International Symposium: Processing and Materials	Ultrafine-Grained Materials: Fifth International Symposium: Stability, Technology, and Property	Ultrafine-Grained Materials: Fifth International Symposium: Properties - and - Poster Session	Ultrafine-Grained Materials: Fifth International Symposium: Deformation Mechanisms	Ultrafine-Grained Materials: Fifth International Symposium: Structure and Evolution		395/396
General Poster Session								Hall I-2
	Frontiers of Computational Materials Science: Session I							RO1/RO2 (APS)

2008 Nanomaterials: Fabrication, Properties, and Applications: Application.....	273	Tues PM	167
2008 Nanomaterials: Fabrication, Properties, and Applications: CNT.....	273	Mon AM	24
2008 Nanomaterials: Fabrication, Properties, and Applications: Device.....	273	Tues AM	113
2008 Nanomaterials: Fabrication, Properties, and Applications: Nanomaterials Synthesis and Sensor.....	273	Mon PM	65
2008 Nanomaterials: Fabrication, Properties, and Applications: Poster Session.....	273	Sun PM	13
2008 Nanomaterials: Fabrication, Properties, and Applications: Processing and Properties.....	273	Wed AM	223
2008 Nanomaterials: Fabrication, Properties, and Applications: Characterization and Theory.....	273	Wed PM	268
3-Dimensional Materials Science: Large Datasets and Microstructure Representation I.....	286	Mon PM	66
3-Dimensional Materials Science: Large Datasets and Microstructure Representation II.....	286	Tues AM	114
3-Dimensional Materials Science: Modeling and Characterization across Length Scales I.....	286	Tues PM	169
3-Dimensional Materials Science: Modeling and Characterization across Length Scales II.....	286	Wed AM	225
3-Dimensional Materials Science: Modeling and Characterization across Length Scales III.....	286	Wed PM	269
3-Dimensional Materials Science: Modeling and Characterization across Length Scales IV.....	286	Thurs AM	312
3-Dimensional Materials Science: ONR/DARPA Dynamic 3-D Digital Structure Program.....	286	Mon AM	25
9th Global Innovations Symposium: Trends in Integrated Computational Materials Engineering for Materials Processing and Manufacturing: Session I.....	281	Mon PM	68
9th Global Innovations Symposium: Trends in Integrated Computational Materials Engineering for Materials Processing and Manufacturing: Session II.....	281	Tues AM	116
Advances in Semiconductor, Electro Optic and Radio Frequency Materials: Compound Semiconductors and Beyond.....	278	Mon PM	68
Advances in Semiconductor, Electro Optic and Radio Frequency Materials: Silicon-Based Optoelectronics and Microelectronics.....	278	Mon AM	27
Alumina and Bauxite: Additives.....	296	Wed AM	226
Alumina and Bauxite: Bauxite.....	296	Tues PM	170
Alumina and Bauxite: Equipment.....	296	Tues AM	117
Alumina and Bauxite: HSEC.....	296	Mon PM	70
Alumina and Bauxite: Operations.....	296	Wed PM	271
Alumina and Bauxite: Precipitation/Conclusion.....	296	Thurs AM	313
Aluminum Alloys: Fabrication, Characterization and Applications: Alloy Characterization.....	293	Tues PM	171
Aluminum Alloys: Fabrication, Characterization and Applications: Composites and Foams.....	293	Wed PM	271
Aluminum Alloys: Fabrication, Characterization and Applications: Corrosion and Protection.....	293	Wed AM	227
Aluminum Alloys: Fabrication, Characterization and Applications: Development and Applications.....	293	Mon AM	28
Aluminum Alloys: Fabrication, Characterization and Applications: Modeling.....	293	Tues AM	118
Aluminum Alloys: Fabrication, Characterization and Applications: Processing and Properties.....	293	Mon PM	70
Aluminum Reduction Technology: Aluminum Industry in Mid-East : Joint Session with Electrode Technology Symposium.....	298/299	Wed AM	228
Aluminum Reduction Technology: Cell Development Part I and Operations.....	298	Tues AM	120
Aluminum Reduction Technology: Cell Development Part II.....	298	Thurs AM	313
Aluminum Reduction Technology: Fundamentals, Low Melting Electrolytes, New Technologies.....	298	Wed PM	273
Aluminum Reduction Technology: Process Control.....	298	Tues PM	173
Aluminum Reduction Technology: Reduction Cell Modelling.....	297	Wed PM	274
Aluminum Reduction Technology: Sustainability and Environment.....	298	Mon PM	72
Aqueous Processing - General Session: Aqueous Processing General Abstracts.....	281	Tues PM	174
Biological Materials Science: Bioinspired Design and Processing.....	390	Tues AM	121
Biological Materials Science: Functional Biomaterials.....	390	Wed AM	229
Biological Materials Science: Implant Biomaterials I.....	390	Mon PM	73
Biological Materials Science: Implant Biomaterials II.....	390	Thurs AM	315
Biological Materials Science: Mechanical Behavior of Biological Materials I.....	390	Mon AM	30
Biological Materials Science: Mechanical Behavior of Biological Materials II.....	390	Wed PM	275
Biological Materials Science: Scaffold Biomaterials.....	390	Tues PM	175
Bulk Metallic Glasses V: Glass Forming Ability and Alloy Development.....	393	Wed AM	231
Bulk Metallic Glasses V: Processing and Properties.....	393	Thurs AM	316
Bulk Metallic Glasses V: Structures and Mechanical Properties I.....	393	Mon AM	31
Bulk Metallic Glasses V: Structures and Mechanical Properties II.....	393	Mon PM	74
Bulk Metallic Glasses V: Structures and Mechanical Properties III.....	393	Tues PM	176
Bulk Metallic Glasses V: Structures and Modeling I.....	393	Tues AM	122
Bulk Metallic Glasses V: Structures and Modeling II.....	393	Wed PM	276
Carbon Dioxide Reduction Metallurgy: Electrolytic Methods.....	294	Wed AM	233
Carbon Dioxide Reduction Metallurgy: Ferrous Industry.....	294	Tues PM	179
Carbon Dioxide Reduction Metallurgy: Mechanisms.....	294	Tues AM	124
Cast Shop Technology: Casthouse Operation.....	295	Tues AM	125
Cast Shop Technology: Casting Processes and Quality Analysis.....	295	Wed PM	278
Cast Shop Technology: Foundry Ingots and Alloys.....	295	Wed AM	234
Cast Shop Technology: Melt Handling and Treatment.....	295	Tues PM	180
Cast Shop Technology: Modelling.....	295	Thurs AM	318
Cast Shop Technology: Sustainability in the Casthouse.....	295	Mon PM	76
Characterization of Minerals, Metals, and Materials: Characterization of Extraction and Processing.....	284	Mon PM	77
Characterization of Minerals, Metals, and Materials: Characterization of Microstructure and Properties of Materials I.....	284	Tues AM	126

Characterization of Minerals, Metals, and Materials: Characterization of Microstructure and Properties of Materials II	284	Tues PM	181
Characterization of Minerals, Metals, and Materials: Characterization of Microstructure and Properties of Materials III	284	Wed AM	235
Characterization of Minerals, Metals, and Materials: Characterization of Microstructure and Properties of Materials IV	284	Wed PM	279
Characterization of Minerals, Metals, and Materials: Characterization of Microstructure and Properties of Materials V	284	Thurs AM	319
Characterization of Minerals, Metals, and Materials: Emerging Characterization Techniques	284	Mon AM	33
Complex Oxide Materials - Synthesis, Properties and Applications: Epitaxial Oxides: Ferroelectric, Dielectric, and (Electro-)Magnetic Thin Films	277	Tues PM	182
Complex Oxide Materials - Synthesis, Properties and Applications: Ferroelectric/Dielectric Oxides	277	Wed PM	280
Complex Oxide Materials - Synthesis, Properties and Applications: Functionally Cross-Coupled Heterostructures	277	Tues AM	128
Complex Oxide Materials - Synthesis, Properties and Applications: Novel Functionality from Complex Oxide Heterointerfaces	277	Mon PM	78
Complex Oxide Materials - Synthesis, Properties and Applications: Scaling, Dynamics, and Switching	277	Wed AM	236
Complex Oxide Materials - Synthesis, Properties and Applications: ZnO Nanostructures and Thin Films	277	Mon AM	34
Computational Thermodynamics and Kinetics: Defect Structure I	288	Mon AM	35
Computational Thermodynamics and Kinetics: Defect Structure II	288	Mon PM	79
Computational Thermodynamics and Kinetics: Diffusion and Phase Stability	288	Thurs AM	320
Computational Thermodynamics and Kinetics: Functional Materials	288	Tues PM	183
Computational Thermodynamics and Kinetics: Integrated Computational Materials Engineering	288	Wed PM	282
Computational Thermodynamics and Kinetics: Phase Field Crystal	288	Tues AM	129
Computational Thermodynamics and Kinetics: Phase Transformations	288	Wed AM	237
Computational Thermodynamics and Kinetics: Poster Session	288	Sun PM	16
Deformation Twinning: Formation Mechanisms and Effects on Material Plasticity: Experiments and Modeling: Twin Effects on Material Deformation I	383	Mon PM	80
Deformation Twinning: Formation Mechanisms and Effects on Material Plasticity: Experiments and Modeling: Twin Effects on Material Deformation II	383	Tues PM	184
Deformation Twinning: Formation Mechanisms and Effects on Material Plasticity: Experiments and Modeling: Twin Formation and Growth Mechanisms	383	Mon AM	37
Deformation Twinning: Formation Mechanisms and Effects on Material Plasticity: Experiments and Modeling: Twinning and Associated Defect Structures	383	Tues AM	130
Electrode Technology Symposium (formerly Carbon Technology): Anode Manufacturing and Developments	297	Tues PM	185
Electrode Technology Symposium (formerly Carbon Technology): Anode Raw Materials and Properties	299	Tues AM	132
Electrode Technology Symposium (formerly Carbon Technology): Carbon Sustainability and Environment Aspects	299	Mon PM	82
Electrode Technology Symposium (formerly Carbon Technology): Cathodes Manufacturing and Developments	299	Wed PM	283
Electrode Technology Symposium (formerly Carbon Technology): Cathodes Raw Materials and Properties	299	Tues PM	186
Electrode Technology Symposium (formerly Carbon Technology): Inert Anode	299	Thurs AM	322
Emerging Interconnect and Packaging Technologies: Advanced Interconnects	275	Tues AM	133
Emerging Interconnect and Packaging Technologies: Pb-Free and Sn-Pb Solders: Electromigration	275	Mon PM	82
Emerging Interconnect and Packaging Technologies: Pb-Free Solder: Tin Whisker Formation and Mechanical Behavior	275	Tues PM	187
Emerging Interconnect and Packaging Technologies: Pb-Free Solders and Other Interconnects: Microstructure, Modeling, and Test Methods	275	Wed PM	285
Emerging Interconnect and Packaging Technologies: Pb-Free Solders: Fundamental Properties, Interfacial Reactions and Phase Transformations	275	Mon AM	38
Emerging Interconnect and Packaging Technologies: Pb-Free Solders: Reliability and Microstructure Development	275	Wed AM	239
Emerging Methods to Understand Mechanical Behavior: Digital Image Correlation Methods	285	Mon PM	84
Emerging Methods to Understand Mechanical Behavior: Diffraction Methods: Electron and Neutron	285	Wed AM	240
Emerging Methods to Understand Mechanical Behavior: Imaging Methods: TEM, SEM, AFM and Moire	285	Mon AM	39
Emerging Methods to Understand Mechanical Behavior: Indentation and Time-Resolved Methods	285	Tues AM	134
Emerging Methods to Understand Mechanical Behavior: Subscale Methods: Tension and Compression	285	Tues PM	188
Emerging Methods to Understand Mechanical Behavior: Diffraction Methods: Synchrotron X-Ray	285	Wed PM	286
Energy Conservation in Metals Extraction and Materials Processing: Session I	287	Wed AM	241
Energy Conservation in Metals Extraction and Materials Processing: Session II	287	Wed PM	287
Enhancing Materials Durability via Surface Engineering: Novel Surface Durability Approaches	388	Tues PM	190
Enhancing Materials Durability via Surface Engineering: Residual Stress Effects on Durability	388	Mon AM	41
Enhancing Materials Durability via Surface Engineering: Steel and Other Alloys Surface Durability	388	Mon PM	85
Enhancing Materials Durability via Surface Engineering: Superalloy Surface Durability	388	Tues AM	136
Frontiers in Computational Materials	RO1/RO2	Mon AM	42
Frontiers in Process Modeling: Casting and General Modeling	287	Tues AM	138
Frontiers in Process Modeling: Metallurgical Reactors	287	Tues AM	137
General Abstracts: Electronic, Magnetic, and Photonic Materials Division: Session I	276	Wed AM	242

General Abstracts: Electronic, Magnetic, and Photonic Materials Division: Session II	276	Wed PM	289
General Abstracts: Extraction and Processing: Session I	272	Mon AM	43
General Abstracts: Extraction and Processing: Session II	272	Mon PM	86
General Abstracts: Light Metals Division: Session I	297	Mon PM	87
General Abstracts: Light Metals Division: Session II	297	Tues AM	138
General Abstracts: Materials Processing and Manufacturing Division: Composition Structure Property Relationships I	282	Mon PM	88
General Abstracts: Materials Processing and Manufacturing Division: Composition Structure Property Relationships II	282	Tues AM	140
General Abstracts: Materials Processing and Manufacturing Division: Films, Coatings, and Surface Treatments	282	Tues PM	191
General Abstracts: Materials Processing and Manufacturing Division: Forging, Forming, and Powder Processing	282	Wed AM	243
General Abstracts: Materials Processing and Manufacturing Division: Solidification and Casting	282	Mon AM	44
General Abstracts: Structural Materials Division: Mechanical Behavior of Materials	387	Mon PM	90
General Abstracts: Structural Materials Division: Mechanical Behavior of Metals and Alloys	387	Mon AM	45
General Abstracts: Structural Materials Division: Microstructure/Property Relations in Steel I	387	Wed AM	245
General Abstracts: Structural Materials Division: Microstructure/Property Relations of Steels II	387	Wed PM	290
General Abstracts: Structural Materials Division: Novel Issues in Materials Processing	387	Tues PM	193
General Abstracts: Structural Materials Division: Structure/Property Relations	387	Tues AM	141
General Poster Session	Hall I-2	Sun PM	17
Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Cyclic Deformation and Fatigue of Metals I	386	Tues PM	194
Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Cyclic Deformation and Fatigue of Metals II	386	Thurs AM	323
Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Dislocations: Work Hardening, Patterning, Size Effects I	386	Mon AM	47
Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Dislocations: Work Hardening, Patterning, Size Effects II	386	Tues AM	143
Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: High-Temperature Mechanical Properties: Creep, Fatigue and Thermomechanical Fatigue	386	Mon PM	91
Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Mechanical Properties of Ultrafine-Grained (UFG) Metals I	386	Wed AM	246
Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Mechanical Properties of Ultrafine-Grained (UFG) Metals II	386	Wed PM	291
Hael Mughrabi Honorary Symposium: Plasticity, Failure and Fatigue in Structural Materials - from Macro to Nano: Poster Session	386	Sun PM	22
Hot and Cold Rolling Technology: Session I	297	Wed AM	248
Hume-Rothery Symposium - Nanoscale Phases: Session I	276	Mon AM	48
Hume-Rothery Symposium - Nanoscale Phases: Session II	276	Mon PM	93
Hume-Rothery Symposium - Nanoscale Phases: Session III	276	Tues AM	145
Hume-Rothery Symposium - Nanoscale Phases: Session IV	276	Tues PM	195
IOMMMS Global Materials Forum 2008: Creating the Future MS&E Professional	272	Tues AM	146
Magnesium Technology 2008: Advanced Magnesium Materials	291	Wed AM	249
Magnesium Technology 2008: Alloy Microstructure and Properties	292	Wed AM	250
Magnesium Technology 2008: Casting	292	Tues PM	196
Magnesium Technology 2008: Corrosion, Surface Finishing and Joining	291	Wed PM	293
Magnesium Technology 2008: Creep-Resistant Magnesium Alloys	292	Wed PM	294
Magnesium Technology 2008: Magnesium Plenary Session	291	Mon AM	49
Magnesium Technology 2008: Primary Production	292	Mon PM	94
Magnesium Technology 2008: Thermodynamics and Phase Transformations	292	Tues AM	147
Magnesium Technology 2008: Wrought Alloys I	291	Mon PM	95
Magnesium Technology 2008: Wrought Alloys II	291	Tues AM	148
Magnesium Technology 2008: Wrought Alloys III	291	Tues PM	198
Materials for Infrastructure: Building Bridges in the Global Community: Session I	272	Tues PM	199
Materials for Infrastructure: Building Bridges in the Global Community: Session II	272	Wed AM	251
Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Gas Separation and CO ₂ Capture	392	Mon PM	96
Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Hydrogen Technologies	392	Thurs AM	324
Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Metallic Interconnects and Sealing in SOFCs	392	Wed AM	252
Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Metallic Interconnects in SOFCs: Oxidation, Protection Coatings	392	Tues PM	200
Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: PEM Fuel Cells and Solar Technologies	392	Wed PM	295
Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Plenary Session	392	Mon AM	50

Materials in Clean Power Systems III: Fuel Cells, Hydrogen-, and Clean Coal-Based Technologies: Solid Oxide Fuel Cells: Metallic Interconnects.....	392.....	Tues AM.....	150
Materials Informatics: Enabling Integration of Modeling and Experiments in Materials Science: Informatics and Cyberinfrastructure.....	271.....	Wed PM.....	296
Materials Informatics: Enabling Integration of Modeling and Experiments in Materials Science: Informatics and Combinatorial Experiments and Materials Characterization.....	271.....	Tues PM.....	201
Materials Informatics: Enabling Integration of Modeling and Experiments in Materials Science: Informatics and Materials Property Design.....	271.....	Tues AM.....	151
Materials Informatics: Enabling Integration of Modeling and Experiments in Materials Science: Informatics and Materials Theory and Modeling.....	271.....	Wed AM.....	254
Materials Processing Fundamentals: Powders, Composites, Coatings and Measurements.....	283.....	Tues AM.....	152
Materials Processing Fundamentals: Process Modeling.....	283.....	Mon PM.....	98
Materials Processing Fundamentals: Smelting and Refining.....	283.....	Tues PM.....	202
Materials Processing Fundamentals: Solidification and Deformation.....	283.....	Mon AM.....	50
Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Microstructure/Property Correlation I.....	384.....	Tues PM.....	203
Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Microstructure/Property Correlation II.....	384.....	Wed AM.....	255
Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Phase Transformation and Microstructure Development I.....	384.....	Mon PM.....	99
Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Phase Transformation and Microstructure Development II.....	384.....	Tues AM.....	153
Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Physical/Mechanical Property Prediction.....	384.....	Wed PM.....	297
Mechanical Behavior, Microstructure, and Modeling of Ti and Its Alloys: Processing: Design, Control and Optimization.....	384.....	Mon AM.....	52
Mechanics and Kinetics of Interfaces in Multi-Component Materials Systems: Interfacial Microstructures and Effects on Mechanical and Physical Properties.....	279.....	Tues PM.....	205
Mechanics and Kinetics of Interfaces in Multi-Component Materials Systems: Joint Session with Advances in Semiconductors, Electro Optic and Radio Frequency Materials.....	279.....	Wed AM.....	256
Mechanics and Kinetics of Interfaces in Multi-Component Materials Systems: Mechanical Properties of Interfaces.....	279.....	Tues AM.....	155
Mechanics and Kinetics of Interfaces in Multi-Component Materials Systems: Mechanics of Adhesion, Friction and Fracture.....	279.....	Mon AM.....	53
Mechanics and Kinetics of Interfaces in Multi-Component Materials Systems: Nanoscale Structures and Simulations.....	279.....	Mon PM.....	100
Micro-Engineered Particulate-Based Materials: Session I.....	271.....	Mon AM.....	54
Minerals, Metals and Materials under Pressure: Electronic, Magnetic and Optical Properties of Materials under High Pressure.....	385.....	Tues AM.....	156
Minerals, Metals and Materials under Pressure: High Pressure Phase Transitions and Mechanical Properties.....	385.....	Tues PM.....	206
Minerals, Metals and Materials under Pressure: New Experimental and Theoretical Techniques in High-Pressure Materials Science.....	385.....	Mon AM.....	55
Minerals, Metals and Materials under Pressure: Shock-Induced Phase Transformations and Microstructure.....	385.....	Mon PM.....	101
National Academies Corrosion Education Study Community Town Hall Meeting.....	388.....	Tues PM.....	191
Neutron and X-Ray Studies for Probing Materials Behavior: Diffraction at Small Dimensions.....	391.....	Mon PM.....	102
Neutron and X-Ray Studies for Probing Materials Behavior: Phase Transitions and Beyond.....	391.....	Tues AM.....	157
Neutron and X-Ray Studies for Probing Materials Behavior: Recrystallization.....	391.....	Tues PM.....	207
Neutron and X-Ray Studies for Probing Materials Behavior: Resolving Local Structure.....	391.....	Mon AM.....	56
Neutron and X-Ray Studies for Probing Materials Behavior: Scattering and Understanding of Materials Properties.....	391.....	Wed PM.....	298
Neutron and X-Ray Studies for Probing Materials Behavior: Stresses/Strains and Structure.....	391.....	Wed AM.....	258
Particle Beam-Induced Radiation Effects in Materials: Carbides, Semiconductors and Other Non-Metals.....	389.....	Wed AM.....	259
Particle Beam-Induced Radiation Effects in Materials: Ceramics and Nuclear Fuel Materials.....	389.....	Tues PM.....	209
Particle Beam-Induced Radiation Effects in Materials: Metals I.....	389.....	Mon AM.....	58
Particle Beam-Induced Radiation Effects in Materials: Metals II.....	389.....	Mon PM.....	104
Particle Beam-Induced Radiation Effects in Materials: Nanostructures.....	389.....	Wed PM.....	300
Particle Beam-Induced Radiation Effects in Materials: RIS and Multilayers.....	389.....	Tues AM.....	158
Phase Stability, Phase Transformations, and Reactive Phase Formation in Electronic Materials VII: Session I.....	278.....	Tues AM.....	160
Phase Stability, Phase Transformations, and Reactive Phase Formation in Electronic Materials VII: Session II.....	278.....	Tues PM.....	210
Phase Stability, Phase Transformations, and Reactive Phase Formation in Electronic Materials VII: Session III.....	278.....	Wed AM.....	260
Phase Stability, Phase Transformations, and Reactive Phase Formation in Electronic Materials VII: Session IV.....	278.....	Wed PM.....	301
Pyrometallurgy - General Sessions: Pyrometallurgy.....	283.....	Wed AM.....	262
Recent Developments in Rare Earth Science and Technology - Acta Materialia Gold Medal Symposium: Session I.....	280.....	Mon AM.....	59

Recent Developments in Rare Earth Science and Technology - Acta Materialia Gold Medal Symposium: Session II	280	Mon PM	105
Recent Industrial Applications of Solid-State Phase Transformations: Alloy Design, Microstructure Prediction and Control	287	Mon PM	106
Recent Industrial Applications of Solid-State Phase Transformations: Superalloys and TRIP Steels/Automotive Steels	287	Mon AM	60
Recycling: Electronics Recycling	280	Tues AM	161
Recycling: General Sessions	280	Wed PM	302
Recycling: Light Metals	280	Wed AM	263
Recycling: Micro-Organisms for Metal Recovery	280	Tues PM	212
Refractory Metals 2008: Characterization	388	Wed PM	303
Refractory Metals 2008: Processing	388	Wed AM	263
Refractory Metals 2008: Properties of Refractory Metals	388	Thurs AM	325
Sloan Industry Centers Forum: Techno-Management Issues Related to Materials-Centric Industries: Session I	270	Mon PM	108
Sloan Industry Centers Forum: Techno-Management Issues Related to Materials-Centric Industries: Session II	270	Tues AM	163
Structural Aluminides for Elevated Temperature Applications: Applications	394	Mon AM	61
Structural Aluminides for Elevated Temperature Applications: Environmental Effects and Protection	394	Thurs AM	326
Structural Aluminides for Elevated Temperature Applications: FE and Other Aluminides	394	Tues AM	163
Structural Aluminides for Elevated Temperature Applications: Mechanical Behavior	394	Mon PM	109
Structural Aluminides for Elevated Temperature Applications: New Class of Gamma Alloys	394	Wed PM	304
Structural Aluminides for Elevated Temperature Applications: Phase and Microstructure Evolution	394	Wed AM	264
Structural Aluminides for Elevated Temperature Applications: Poster Session	394	Wed PM	306
Structural Aluminides for Elevated Temperature Applications: Processing and Microstructure Control	394	Tues PM	212
Sustainability, Climate Change and Greenhouse Gas Emissions Reduction: Responsibility, Key Challenges and Opportunities for the Aluminum Industry	295/296	Mon AM	62
The Role of Engineers in Meeting 21st Century Societal Challenges -- AIME Keynote Session	272	Wed PM	308
Ultrafine-Grained Materials: Fifth International Symposium: Deformation Mechanisms	395/396	Wed AM	266
Ultrafine-Grained Materials: Fifth International Symposium: Modeling, Theory, and Property	395/396	Mon AM	63
Ultrafine-Grained Materials: Fifth International Symposium: Poster Session	395/396	Tues PM	216
Ultrafine-Grained Materials: Fifth International Symposium: Processing and Materials	395/396	Mon PM	110
Ultrafine-Grained Materials: Fifth International Symposium: Properties	395/396	Tues PM	214
Ultrafine-Grained Materials: Fifth International Symposium: Stability, Technology, and Property	395/396	Tues AM	165
Ultrafine-Grained Materials: Fifth International Symposium: Structure and Evolution	395/396	Wed PM	309