MS&T'07® Technical Program Overview

Sunday, September 16, 2007

General Lecture	5:00-6:00 PM
Poster Session/Welcome Reception	6:00-8:00 PM

Monday, September 17, 2007 AM

Automotive Theme Keynote	7:50-8:25 AM
Opening Remarks and Technical Presentations*	8:30-11:55 AM
Morning Break	10:00-10:20 AM
Lunch and Lecture	12:00-2:00 PM
Opening Remarks and Technical Presentations*	2:00-5:30 PM
Afternoon Break	3:30-3:50 PM

Tuesday, September 18, 2007

Automotive Theme Keynote	7:50-8:25 AM
Opening Remarks and Technical Presentations*	8:30-11:55 AM
Morning Break	10:00-10:20 AM
Lunch and Lectures	12:00-2:00 PM
Opening Remarks and Technical Presentations*	2:00-4:30 PM
Exhibit Reception**	4:00-6:00 PM

Wednesday, September 19, 2007

Opening Remarks and Technical Presentations*	8:30-11:55 AM
Morning Break	10:00-10:20 AM
Lunch and Lecture	12:00-2:00 PM
Opening Remarks and Technical Presentations*	2:00-5:30 PM
Afternoon Break	3:30-3:50 PM

Thursday, September 20, 2007

Opening Remarks and Technical Presentations*	8:30-11:55 AM
Morning Break	10:00-10:20 AM
Lunch	12:00-2:00 PM
Opening Remarks and Technical Presentations*	2:00-5:00 PM
Afternoon Break	3:30-3:50 PM

* Opening remarks are scheduled at the beginning of each morning and afternoon technical session.

**No afternoon coffee break on Tuesday. Sessions will end early so that attendees may attend the Exhibit Reception.

Note: A few technical sessions may end slightly earlier or end slightly later than indicated in this overview. Please consult the Session Schedule.

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Program-At-A-Glance

Automotive

Symposia	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
Advanced High-Strength & Other Specialty Sheet Steel Products for the Automotive Industry	W2-65	•	•	•		•	•	•	
Automotive and Ground Vehicles: Applications of Materials to Vehicle Designs	W2-63	•	•	•	•	•			
Automotive and Ground Vehicles: Materials and Processes for Vehicles	W2-62	•	•	•	•	•	•	•	•
Automotive Light Metal Castings: Technology and Applications	W2-64	•	•	•	•	•	•	•	•
High-Density Hydrogen Storage for Automotive Applications: Materials and Methods	W2-66	•	•	•	•	•	•	•	•
Zinc Coated Steel Sheets	W2-69						•	•	

Electronic and Magnetic Properties

Symposia	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
Basic and Applied Needs for Superconductivity	D2-11		•	•	•	•			
Ferroelectrics and Multiferroics	D2-10	•	•	•	•	•			
General Topics in Electroceramics	D2-15			•	•	•	•		
International Symposium on Dielectric Materials: Design, Preparation & Applications	D2-09	•	•	•	•	•	•		
Perovskite Material Engineering	D2-11						•	•	
Spintronic Materials and Devices	D2-10							•	•
Structure-Property Relationships of Multifunctional Oxide Thin Films and Interfaces	D2-08			•	•	•	•	•	

Energy

Symposia	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
Degradation of Materials for Application in Nuclear Power and Waste Management Systems	D2-12					•	•	•	
Encapsulation and Immobilization of Hazardous and Nuclear Wastes Using Ceramics, Glass and Other Materials	D2-12	•	•	•					
Energy Materials	D2-13	•	•	•	•	•	•	•	
Fuel Cells: Materials, Processing, Manufacturing and Power Management Technologies	D2-14	•	•	•	•	•	•	•	•

Fundamentals and Characterization

Symposia	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
Characterization & Modeling of the Mechanical Performance of Advanced Alloys	D0-07B	•	•	•	•	•	•	•	
Discovery and Optimization of Materials through Computational Design	D0-05AB	•	•	•	•	•	•		
Frontiers in Materials Science: Materials for Sports and Medicine	D0-03A		•	•					
Fundamentals of Brittle Fracture	D0-03A				•	•	•	•	•
High Temperature Material Systems Fatigue Mechanisms and Prognosis	D0-02AB				•	•	•	•	•

Fundamentals and Characterization cont.

Symposia	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
International Symposium on Defects, Transport and Related Phenomena	D0-03C	•	•	•	•	•	•	•	
Numerical, Mathematical, and Physical Modeling Tools for Materials Processes	D0-03D					•	•	•	•
Phase Stability, Diffusion, and Their Applications	D0-04ABC	•	•	•	•	•	•	•	
Web-Based Matls. Property Databases, Knowledge Mngt. of Matls. Info., and Matls. Informatics	D0-06AB					•	•	•	
What We Can Learn from Failure Analysis	D0-01A	•	•	•	•	•	•	•	

Materials and Systems

Symposia	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
Coatings as an Enabler of System Performance	O2-38			•	•	•	•	•	•
Commonality of Phenomena in Composite Materials	O2-37	•	•	•	•	•			
Copper and Copper Alloys for Emerging Technologies	O2-37						•	•	
Glass and Optical Materials	O2-39	•	•	•					
International Symposium on Ceramic Matrix Composites	O2-43				•	•	•	•	•
Iron Based Amorphous Metals: An Important Family of High-Performance Corrosion-Resistant Materials	O2-40	•	•	•	•	•	•		
Next Generation Biomaterials: Advanced Processing, Characterization, and Modeling of Materials for Med	O2-39				•	•	•	•	•
Thermal Shock Resistant Materials	O2-38	•	•						

Nanotechnology

Symposia	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
Innovative 3D Nanoparticulate Material Processing	W2-58					•	•	•	
Materials Characterization at the Nanoscale: Instrumentation and Applications	W2-61		•	•	•	•	•	•	•
Mechanics of Nanomaterials and Micro/ Nanodevices: Experimental and Modeling	W2-68	•	•	•	•	•	•	•	
Nanomaterials for Electronic Applications	O2-44					•	•	•	
Nano-Processing - Property Enhancement by Quantum Confinement and Other Effects in Reduced Dimensions	W2-58			•	•				
Nanostructured Ceramic Materials: Science and Technology	W2-67	•	•	•	•	•	•	•	

Processing and Product Manufacturing

Symposia	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
Advances in Cement-Based Materials: Manufacturing, Hydration, Admixture Interaction, Properties/Characterization, Modeling and Degradation/Durability	O2-36	•	•	•	•	•			
Environmental Degradation of Non-Metallic Materials and Sensors	O2-41				•				
Environmental Issues in the Material Science and Technology Industries	O2-41					•	•		
Innovative Processing and Synthesis of Ceramics, Glasses and Composites	O2-33		•	•	•	•	•	•	•

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Program-At-A-Glance

Processing and Product Manufacturing cont.

Symposia	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
Joining of Advanced and Specialty Materials IX	O2-35	•	•	•	•	•	•	•	
Lead Free Solders: Emerging Issues in Manufacturing, Performance, and Reliability	O2-42					•	•	•	
Surface Engineering using Hybrid Plasma Assisted PVD and CVD Technologies	O2-41	•	•	•					

Steel

Symposia	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
4th International Symposium on Railroad Tank Cars	W2-70	•	•						
Future of Alloying in Steel	W2-70				•				
Recent Developments in Steel Processing	W2-69	•	•	•		•			
Steel Product Metallurgy and Applications	W2-69				•				
Steel Product Metallurgy and Applications	W2-70					•	•	•	•

Special Topics

Symposia	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
Poster Session (Sunday)	O3-45 Sun	•	•						
Richard M. Fulrath Award Session	D0-06AB			•					
Industry Track Program	Expo Hall			•	•	•	•		
Journal of Undergraduate Materials Research	D0-02AB		•						
Materials and Mechanics: The Profound Influence of Tony Evans on Engineering Use of Structural Materials	M2-29	•	•	•	•				
Federal Funding Worshop	M3-32						•		

Lectures

	Room	Mon AM	Mon PM	Tue AM	Tue PM	Wed AM	Wed PM	Thur AM	Thur PM
ACerS Frontiers of Science and Society - Rustum Roy Lecture (Sunday)	M3-32 Sunday								
ASM/TMS Distinguished Lecture	O2-44		1:00						
ASM/TMS Distinguished Lecture Session	O2-44		2:00						
Alpha Sigma Mu Lecture	M2-30		3:00						
ACerS Cements Division Della Roy Lecture	O2-36		3:50						
TMS Young Leaders Tutorial Luncheon & Lecture	O2-44				Noon				
Edward DeMille Campbell Memorial Lectureship	O3-46				12:45				
ACerS Edward Orton Jr. Memorial Lecture	M2-30				1:00				
ACerS Arthur L. Friedberg Memorial Lecture	M2-30					10:30			
ACerS Robert B. Sosman Award and Lecture	D2-15						1:00		