19th North American Catalysis Society Meeting

May 22-27, 2005
Philadelphia, Pennsylvania USA


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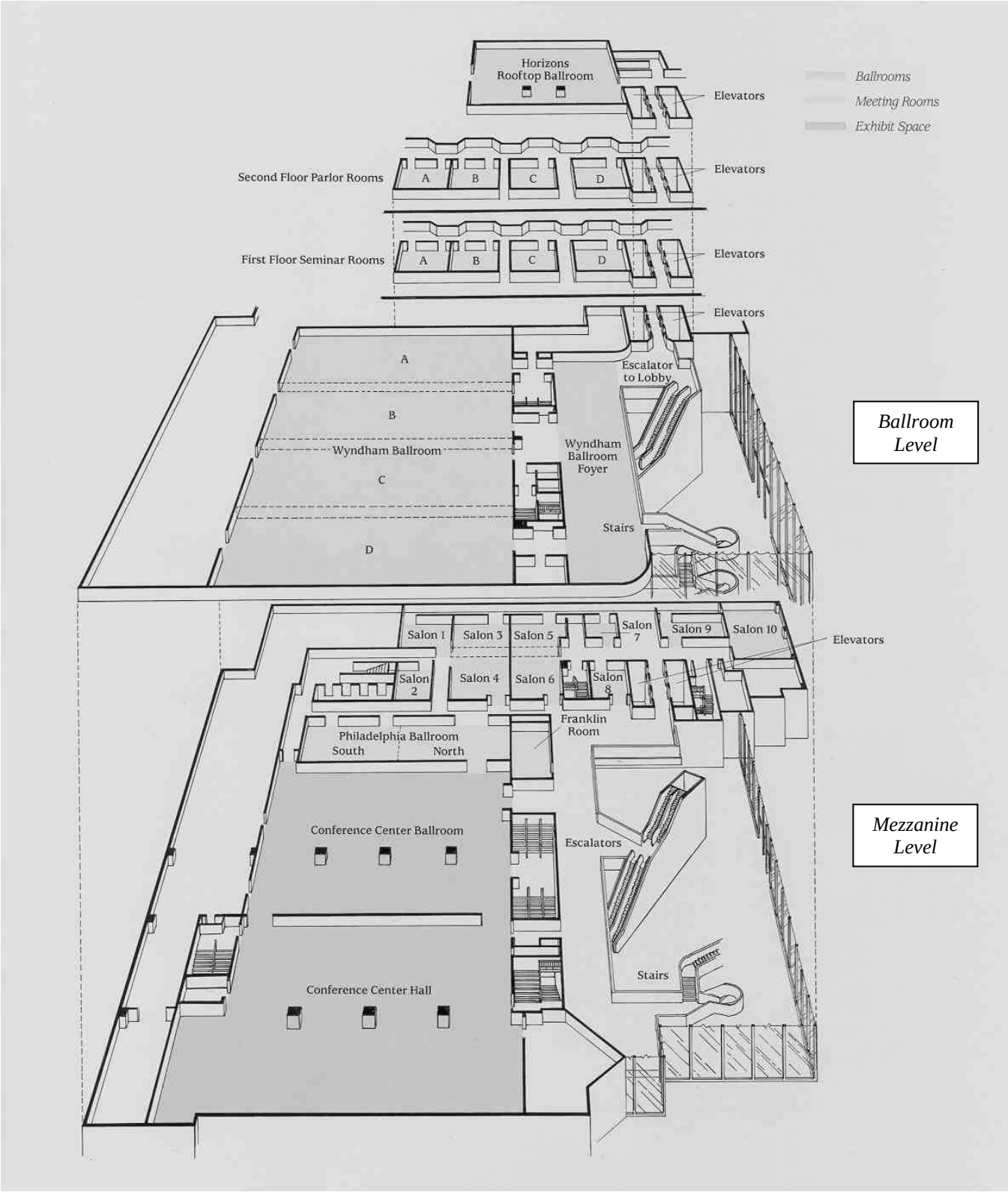
Location of Oral Presentations in the Ballroom Level



2005 NAM Oral Presentations – Monday AM, May 23

Time	Wyndham A	Wyndham B	Wyndham C
8:25 AM	Welcome and Opening Remarks-Wyndham AB		
8:30 AM 8:50 AM 9:10 AM	O-1 Towards the Design of Industrial Catalysts Presenter: Henrik Topsøe, Houdry Awardee (Room – Wyndham AB)		
9:30 AM	Coffee Break		
	Fuel Cells: Electrocatalysis	**Environmental: Gasoline Engines**	**Catalysis of Pharmaceuticals, Specialties and Biorenewables**
10:00 AM	O-2 Electrocatalysts for Proton Exchange Membrane Fuel Cells Presenter: Dave Thompsett, Keynote Lecture	O-14 An Atomistic Understanding of NO2 Storage over BaCO3 Presenter: Peter Broqvist	O-26 Chiral Self-Dimerized Vanadium Dimers on a SiO_2 Surface Presenter: Mizuki Tada
10:20 AM		O-15 High Throughput Experimentation as Applied to NSR Catalysts Presenter: Rohit Vijay	O-27 Templated Organic-Inorganic Active Sites for Bifunctional Heterogeneous Catalysis Presenter: Alexander Katz
10:40 AM	O-3 Synthesis and Characterization of Size Controlled Pt Electrocatalysts Presenter: William A Steen	O-16 Understanding NOx Storage Catalysis Presenter: Erik Fridell, Keynote Lecture	O-28 Immobilized Pd(II) Pincer Complexes in Heck Chemistry – Are Molecular Metal-Ligand Complex Heck Catalysts a Fallacy? Presenter: Christopher W. Jones
11:00 AM	O-4 Fuel Cell Electrocatalysts: New Approach to the Preparation of Platinum- and Gold-Based Bimetallic Nanoparticles Presenter: Chuan-Jian Zhong		O-29 Increasing cis-4-TBCHL Selectivity over Zeolite Beta in the Meerwein-Ponndorf-Verley Reduction Presenter: Burcu Akata
11:20 AM	O-5 Development Towards Improved PEMFC Electrocatalysts Presenter: Rodney L. Taylor, Keynote Lecture	O-17 The Acid-Base Properties of Supported BaO on Al203 NOx Presenter: X. Wang	O-30 Conversion of p-Toluidine to 4-Methylcyclohexylamine: Solvent Effects. Presenter: David Jackson
11:40 AM		O-18 Selective Catalytic Reduction NO by Propene over Pt/Al_2O_3 and Sn/Al_2O_3 Combined Catalyst System Presenter: Junhua Li	O-31 Ketones from Acid/Aldehyde Condensation using Metal CeO_2 Catalysts Presenter: Kerry M. Dooley
12:00 PM	Lunch		

2005 NAM Oral Presentations – Monday AM, May 23

Time	Wyndham D	Salon 5/6	Salon 10
8:25 AM	Welcome and Opening Remarks-Wyndham AB		
8:30 AM 8:50 AM 9:10 AM	O-1 Towards the Design of Industrial Catalysts Presenter: Henrik Topsøe, Houdry Awardee (Room – Wyndham AB)		
9:30 AM	Coffee Break		
	Desulfurization	**Theory and Computation**	**Operando Spectroscopy**
10:00 AM 10:20 AM	O-41 On Novel Processes for Removing Sulfur from Refinery Streams Presenter: Rob van Veen, Keynote Lecture	O-54 Heterogeneous Catalysis from First-Principles Presenter: Jens Norskov, Plenary Lecture	O-67 Operando Raman Methodology: the combination of reaction in situ spectroscopy and activity measurement in a single experiment Presenter: Miguel A. Bañares, Plenary Lecture
10:40 AM	O-42 Advanced Catalysts and Processes for Low Sulfur Gasoline and Diesel Production: ExxonMobil Technologies Presenter: David L. Stern		
11:00 AM	O-43 Diesel Fuel Desulfurization using Fe-TAML® Catalysts and H_2O_2 Presenter: Colin P. Horwitz	O-55 Combined Theoretical and Computational Characterization of Reactants and Transition States on Surfaces Presenter: Andrew Gellman	O-68 Real-time quantitative operando Raman spectroscopy on supported metal oxide catalysts without the need of an internal standard Presenter: Bert Weckhuysen
11:20 AM	O-44 Hydrodesulfurization using In Situ Generated H_2 and Nano-Dispersed Mo-based Catalysts Presenter: Roy Z. Lee	O-56 Ab-initio Study of MeOH Synthesis from CO_2 Hydrogenation on Copper Presenter: Lars Grabow	O-69 Killing three birds with one stone: Simultaneous operando EPR/UV-vis/Raman spectroscopy for monitoring catalytic reactions Presenter: Angelika Brueckner
11:40 AM	O-45 Catalytic De-Hydrosulfidation of Gasoline Presenter: Hugo de Lasa	O-57 Fundamental Insights into Sintering of Ag/a-Al_2O_3 Catalysts Presenter: Randall Meyer	O-70 Combined Raman and DRIFTS data obtained by operando spectroscopy to elucidate the methane combustion mechanism Presenter: Olivier Demoulin
12:00 PM	Lunch		

2005 NAM Oral Presentations – Monday PM, May 23

Time	Wyndham A	Wyndham B	Wyndham C
	Fuel Cells: Electrocatalysis	**Environmental: Gasoline Engines**	**Catalysis of Pharmaceuticals, Specialties and Biorenewables**
1:30 PM	O-6 Catalyst Development Roadmap for Automotive PEMFCs and Catalyst Degradation Mechanisms Presenter: Hubert A. Gasteiger, Keynote Lecture	O-19 Sintering of Automotive Catalysts: Myth and Reality Presenter: Abhaya Datye, Keynote Lecture	O-32 Biodiesel Production from High Acidity Raw Materials: Acid and Base Catalysis Combination Presenter: Carlos Querini
1:50 PM			O-33 Isomerization of Unsaturated Fatty Acid/Ester for Biodiesel and New Surfactant Applications Presenter: Z. Conrad Zhang
2:10 PM	O-7 Single Crystal Experimental and Theoretical Studies of Metal-supported Pt Monolayer Catalysts for the Oxygen Reduction Reaction Presenter: Manos Mavrikakis	O-20 Sintering Inhibition Mechanism of Platinum Supported on Ceria-based Oxide for Automotive Catalysts Presenter: Yasutaka NAGAI	O-34 Study of Biodiesel Forming Reactions Using Model Compounds and Acid Catalysts Presenter: Edgar Lotero
2:30 PM	Coffee Break		
3:00 PM	O-8 Nano-structured nitrogen-containing carbon catalysts for the oxygen reduction reaction in PEM fuel cell cathodes Presenter: Paul Matter	O-21 Three-Way Catalyst Chemistry Presenter: Harold N. Rabinowitz, Keynote Lecture	O-35 Catalytic Reactions for the Production of Biomarkers from the Biological Warfare Agent Anthrax Presenter: Zhijun Jia
3:20 PM	O-9 Novel SOFC Cathodes Prepared by Impregnation Procedures Presenter: Yingyi Huang		O-36 Control of Selectivity in Liquid-Phase Debenzylation vs. Dechlorination Reactions Presenter: Adrian David
3:40 PM	O-10 Anode Electrocatalysts for Direct Methanol Fuel Cells Presenter: Jo-Ann T. Schwartz, Keynote Lecture	O-22 Oxidation and Reduction of Ceria and Ceria-Zirconia Presenter: Ruigang Wang	O-37 Catalytic Decomposition of Diborane Presenter: Dmitry Murzin
4:00 PM		O-23 Catalytic NO-CO Reaction And NO Decomposition over Pd and $AgPd/Al_2O_3$ Presenter: Duane D. Miller	O-38 The Effect of Sn Loading in MCM-41 for the Production of Nopol Presenter: Edwin Alarcon
4:20 PM	O-11 Tungsten Carbides as Potential Alternative Electrocatalysts Presenter: Michael Zellner	O-24 Characterisation of Regenerated Three-Way Automotive Catalysts Presenter: Henrik Birgersson	O-39 Bismuth triflate: A Still Unsung Catalyst Presenter: Jean-Pierre Siminato
4:40 PM	O-12 Determination of O(H) and CO Adsorption Sites and Coverage on PtRu Electrodes in an Operating PEM Fuel Cell Presenter: David E. Ramaker	O-25 Promotion Effects in the Oxidation of CO over Zeolite-Supported Pt Nanoparticles Presenter: Bert Weckhuysen	O-40 Synthesis of Canola Oil Esters in Mixed Methanol and Ethanol System Using Homogeneous and Heterogeneous Catalysts Presenter: M. G. Kulkarni
5:00 PM	O-13 First direct ethanol fuel cell with platinum-free electrodes: the miracle of HyPerMec™ Presenter: Pierluigi Barbaro		
5:30 - 8:00 PM	**Poster Session in the Conference Center Hall**		
7:30 PM	**Catalysis Letters Sponsored Drawing**		

2005 NAM Oral Presentations – Monday PM, May 23

Time	Wyndham D	Salon 5/6	Salon 10
	Desulfurization	**Theory and Computation**	**Operando Spectroscopy**
1:30 PM	O-46 Influence of N-containing Compounds on the Deep Hydrodesulfurization on Ni-MoS_2, Co- MoS_2, and Pt-Pd Catalysts Presenter: Roel Prins, Keynote Lecture	O-58 Mechanistics of Oxidation on Metal Oxides Presenter: William F. Schneider	O-71 Hydroformylation of ethylene oxide and the development of a commercial route to 1,3-propanediol. Presenter: Paul R. Weider, Keynote Lecture
1:50 PM		O-59 On the Mechanism of Cs-Promotion in Ethylene Epoxidation on Silver Presenter: Suljo Linic	
2:10 PM	O-47 Synchrotron X-ray Scattering Study of Supported CoMo Hydrodesulfurization Catalysts - The Single-Layered Morphology and its Consequences to Selectivity Variations Observed in the HDS of DBT Presenter: Myriam Perez De la Rosa	O-60 The Roles of Gallium Hydride and Brønsted Acidity in Light Alkane Dehydrogenation Mechanisms using Ga-HZSM-5: A DFT Pathway Analysis Presenter: Kendall Thomson	O-72 Inter-relationship between carbonate, nitrate and sulphates in NOx storage and Reduction (NSR) catalysts. Presenter: James A. Anderson
2:30 PM	Coffee Break		
3:00 PM	O-48 Insights into the Preparation Process of Supported Catalysts A Combined UV-Vis and Raman Microspectroscopy Study Presenter: Leon van de Water	O-61 Mechanisms of 1,2-Dichloroethane Dechlorination Catalyzed by Finely Dispersed Pt-Cu Clusters. A Density Functional Theory Cluster Study Presenter: Julie l. d'Itri	O-73 In situ Time-resolved Characterization of Au- CeO_2 Catalysts during H2/CO Reduction and under the Water Gas Shift Reaction Presenter: Jonathan C. Hanson
3:20 PM	O-49 Effect of Solvo-thermal Treatment Temperature On the Properties of Sol-Gel ZrO2-TiO_2 Oxides as HDS Catalysts Supports Presenter: M. C. Barrera	O-62 Thiophene Hydrodesulfurization on a Ti_8C_{12} Metcar: Density Functional Study Presenter: Ping Liu	O-74 Supported Gold Complexes and Clusters: Spectroscopic Characterization of Functioning Catalysts for CO Oxidation Presenter: Juan C. Fierro-Gonzalez
3:40 PM	O-50 Support Effects for Nickel Phosphide Hydrotreating Catalysts Presenter: Mark Bussell	O-63 Nano-Scale Effects in the Reactivity of Pt clusters toward CO Oxidation Presenter: Ye Xu	O-75 Performance of chromia/zirconia in dehydrogenation of isobutane Presenter: A. Outi I. Krause
4:00 PM	O-51 NiMo Catalysts Supported on Titania-Modified SBA-16 for 4,6-Dimethyldibenzothiophene Hydrodesulfurization Presenter: Juan Carlos Amezcua	O-64 Modeling Proton Transfer in Zeolites: Convergence Behavior of Embedded and Constrained Cluster Calculations Presenter: Scott Auerbach	O-76 In Situ Infrared Study of the Catalytic Ignition of Methane on Pt/Al_2O_3 Presenter: Keith Hohn
4:20 PM	O-52 Effect of Co on the HDS of 4,6-DMDBT over Bulk Ni2P and MoP Catalysts Presenter: Ibrahim I. Abu	O-65 Mechanistic Model for Epoxidation Reactions Catalyzed by Free and Encapsulated Mn-Porphyrins Presenter: Maria C. Curet-Arana	O-77 ATR-IR spectroscopy and heterogeneous catalysis. The liquid-phase oxidation of alcohols on Pd-based catalysts Presenter: Davide Ferri
4:40 PM	O-53 HDS & Deep HDS Activity of Co/Mo/S-Mesostructured Synthetic Clays Presenter: Katie Carrado	O-66 Structural Modeling of Nanoporous Carbon Supports Presenter: Amit Kumar	O-78 In-situ and Operando IR Spectroscopic study of high activity Pt-modified Sulfated Zirconia catalysts for n-Pentane isomerization Presenter: Eduardo E. Wolf
5:00 PM			O-79 In-Situ Studies of Liquid-Phase Nitrile Adsorption and Hydrogenation using Attenuated Total Reflection Infrared Spectroscopy Presenter: Ivelisse Ortiz-Hernandez
5:30 - 8:00 PM	**Poster Session in the Conference Center Hall**		
7:30 PM	**Catalysis Letters Sponsored Drawing**		

2005 NAM Oral Presentations – Tuesday AM, May 24

Time	Wyndham A	Wyndham B	Wyndham C
	Surface Science in Catalysis	**Environmental: Diesel Engines**	**Catalysis of Pharmaceuticals, Specialties and Biorenewables**
8:30 AM	O-80	O-94	O-108
8:50 AM	Nanotechnology in Heterogeneous Catalysis Presenter: Gabor Somorjai, Plenary Lecture	Diesel Emission Control: Past, Present and Future Presenter: Andrew Walker, Plenary Lecture	Biomass Conversion: New Opportunities for Chemical Catalysis Presenter: Leo E Manzer, Plenary Lecture
9:10 AM			
9:30 AM	Coffee Break		
10:00 AM	O-81 Catalysis and Surface Reactivity at the Atomic Scale Studied by High-Resolution STM Presenter: Flemming Besenbacher, Keynote Lecture	O-95 The Particulate Challenge Presenter: George Muntean, Keynote Lecture	O-109 Biorenewable Processes to Acrylic Acid Presenter: John Holladay
10:20 AM			O-110 Renewable Liquid Alkanes from Aqueous-phase Biorefining of Oxygenated Hydrocarbons Presenter: G.W. Huber
10:40 AM	O-82 Chiral Modifiers in Enantioselective Catalysis Presenter: Francisco Zaera	O-96 Novel Approaches to Diesel Soot Oxidation Studies Presenter: Aleksey Yezerets	O-111 Heterogeneous Catalysts for Ethylene Carbonate Production Presenter: J. Scott Buchanan
11:00 AM	O-83 Desulfurization Reactions on Ni2P(001) and α-Mo2C(001) Surfaces Presenter: Jose A. Rodriguez	O-97 Mixed-oxide Catalyst for Diesel Particulate Filtration Presenter: Debora Fino	O-112 Synthesis of Propylene Carbonate from Urea and Propylene Glycol over Solid Acid-Base Catalysts Presenter: Zhao Ning
11:20 AM	O-84 Desulfurization of H2S and CH3SH on Thin-film CeOx(111) Presenter: David R. Mullins	O-98 Lean NO & CO Oxidation over Supported Pt Presenter: Pete Schmitz	O-113 Novel Multistep Process for Production of N-Methyl-2-Pyrrolidone from Renewable Resources Presenter: James F White
11:40 AM	O-85 Interaction of Water with Ordered Al_2O_3 Ultra Thin Films Grown on NiAl(100) Presenter: Emrah Ozensoy	O-99 Soot Oxidation over NOx Storage Catalysts: Activity and Deactivation Presenter: Michiel makkee	O-114 Allylic Oxidation of Monoterpenes over Iron Phthalocyanines Immobilized on Silica Presenter: Lina-Maria Gonzalez
12:00 PM	Lunch		

2005 NAM Oral Presentations – Tuesday AM, May 24

Time	Wyndham D	Salon 5/6	Salon 10
	Desulfurization	**Gas to Liquids**	**Novel Compact Reactors**
8:30 AM 8:50 AM	O-124 Desulfurization of Transportation Fuels by Adsorption with Zeolites Presenter: Ralph T. Yang, Keynote Lecture	O-140 Catalyst Design for Gas-to-Liquids via Fischer-Tropsch Synthesis Presenter: James G. Goodwin, Jr., Keynote Lecture	O-157 Microreactors for Catalyst Discovery and Applications Presenter: Klavs F. Jensen, Keynote Lecture
9:10 AM	O-125 The Chemistry of Copper Containing Sulfur Adsorbents in the Presence of Mercaptans Presenter: Wayne Turbeville	O-141 Cobalt on Carbon Nanofiber Catalysts for Study of Cobalt Particle Size Effect in Fischer-Tropsch Catalysis Presenter: G. Leendert Bezemer	O-158 Novel Microreactor Design for Balancing Heat and Mass Transfer Presenter: Ward E. TeGrotenhuis
9:30 AM	Coffee Break		
10:00 AM	O-126 Sulfur Removal by Adsorption: Calorimetric and IR Study of Adsorption of Thiophenic Sulfur Compounds on Y Zeolites Presenter: Flora T.T. Ng	O-142 Combined XPS, EXAFS and STEM-EELS on the Electronic State and Location of Mn in Co-Based Fischer-Tropsch Catalysts Presenter: Fernando Morales Cano	O-159 Catalytic Micro-channel Reactors - For Uses in Catalyst Development, Chemical Processing, and Energy Generation Presenter: Volker Hessel, Keynote Lecture
10:20 AM	O-127 Interaction of Sulfur with Carbides and Nitrides Presenter: Maha R. Hammoud	O-143 A Theoretical Comparative Study of Fischer-Tropsch Synthesis on Fe and Co Surfaces Presenter: Manos Mavrikakis	
10:40 AM	O-128 Ultra-Deep Desulfurization of Diesel Fuel over Different Adsorption: A Fundamental Study of Adsorption Selectivity and Mechanism Presenter: Jae Hyung Kim	O-144 Microkinetic Model for Fischer-Tropsch Synthesis on Iron Presenter: Calvin H. Bartholomew	O-160 Performance of Micro-Reactor Heated Internally or Externally for Methanol Steam Reforming Presenter: SeongIhl Woo
11:00 AM	O-129 H_2S Removal with ZnO during Fuel Processing for PEMFC Applications Presenter: Liyu Li	O-145 Enhanced Synthesis Activity upon Regenerating a Used, Unpromoted, Cobalt Fischer-Tropsch Synthesis Catalyst Presenter: Heinz J. Robota	O-161 Computer-Aided Design of Micro-scale Fuel Processors Presenter: Chunshe Cao
11:20 AM	O-130 Vapor-Phase Oxidesulfurization (ODS) of Various Sulfur Containing Molecules:Carbonyl Sulfide, Methyl Mercaptans and Thiophene Presenter: Sukwon Choi	O-146 The Role of Accumulated Carbon in Deactivating Cobalt Catalysts During FT Synthesis in a Slurry-Bubble-Column Reactor Presenter: Vladimir Gruver	O-162 Microfibrous Entrapped Sorbents/Catalysts - A Novel Heterogeneous Contacting/Reaction System with Enhanced Heat and Mass Transfer Presenter: Ranjeeth Kalluri
11:40 AM	O-131 Zeolites as Catalysts and Adsorbents for the Removal of Organosulfur Compounds from Hydrocarbons Presenter: Enrique Iglesia	O-147 Silica Tubes and Spheres as Supports for Fe Fischer-Tropsch Catalysts Presenter: Neil Coville	O-163 Methanol Fuel Processing in an Autothermal Dual Membrane Fuel Processor Presenter: Michael P. Harold
12:00 PM	Lunch		

2005 NAM Oral Presentations – Tuesday PM, May 24

Time	Wyndham A	Wyndham B	Wyndham C
	Surface Science in Catalysis	**Environmental: Diesel Engines**	**Catalysis of Pharmaceuticals, Specialties and Biorenewables**
1:30 PM	O-86 New Insights into Chemical Reactions at Surfaces and Heterogeneous Catalysis Obtained by Statistical Mechanics from First Principles Presenter: Matthias Scheffler, Keynote Lecture	O-100 Mechanism of Catalyzed NOx Reduction in Diesel Engine Exhaust Presenter: Wolgang M. H. Sachtler, Keynote Lecture	O-115 Computational Catalysis Towards Elucidating the Catalytic Hydrogenation of Polyols Presenter: Matthew Neurock
1:50 PM			O-116 Mechanistic Insight into the Hydrogenolysis of Higher Polyols on Ru/C Presenter: Brent H. Shanks
2:10 PM	O-87 Theoretical Investigations of Pyridine and Pyrrole Reaction Mechanism on Nickel-Promoted MoS_2 Presenter: Mingyong Sun	O-101 SO2 Effect on deNOx Performance of Ag/Al_2O_3 Catalysts Presenter: Paul W. Park	O-117 Aqueous Phase Catalytic Hydrogenation of α-Substituted Organic Acids Presenter: Jennifer Farrugia
2:30 PM	Coffee Break		
3:00 PM	O-88 CO_2 Sorption on MgO and CaO Surfaces: A Comparative Quantum Chemical Cluster Study Presenter: Morten Breinholt Jensen	O-102 Nitrogen Production Efficiency for Aldehydes in Lean NOx Reduction over Anatase Titania Presenter: M. C. Kung	O-118 Fundamental Catalyst Studies for the Base Catalyzed Reaction of gamma-Valerolactone (GVL) and Formaldehyde to γ-Methyl-α-Methylene Butyrolactone (MeMBL): A Promising Monomer for High Tg Copolymers and Polymer Blends Presenter: Kostantinos Kourtakis
3:20 PM	O-89 Calorimetric Measurements of the Heat of Adsorption of Aromatic Hydrocarbons and Cyclohexene on Pt(111) Presenter: Parthasarathi Bera	O-103 NOx SCR by Decane and Propylene on Pt+Cu/Zr-pillared Clays in Realistic Feeds: Performance and Mechanistic Features versus Structural Specificity of Nanosized Zirconia Pillars Presenter: Vladislav A. Sadykov	O-119 Nature and Effect of the Support in the Selective Hydrogenation of Citral over Silica-Zirconia and Silica-Titania Platinum Catalyst Presenter: René Gerardo Rodriguez
3:40 PM	O-90 CO Oxidation over "O-rich" Ru(0001) Supported Au Nanoparticles Presenter: Qifei Wu	O-104 Supported Bismuth Oxide Catalysts for NOx Reduction Using Hydrocarbon Reductants Presenter: Mark Crocker	O-120 Textured Catalysts for Hydrothermal Reactions Presenter: John F. Frye
4:00 PM	O-91 Synthesis of Vinyl Acetate over Pd-Based Catalysts: From Single Crystals to Supported Clusters Presenter: Dheeraj Kumar	O-105 Studies of the Mechanism of NOx Reduction with Additives Presenter: Eric Weitz	O-121 Hydrogenolysis of Hydroxymatairesinol Extracted from Norway Spuce (*Picea Abies*) Knots Presenter: Heidi Markus
4:20 PM	O-92 Kinetics of Complete Methane Oxidation on Palladium Catalysts Presenter: Fabio H. Ribeiro	O-106 NH3-NO/NO2 SCR Reaction for Diesel Exhaust Aftertreatment: A Transient Dynamic Study Presenter: Isabella Nova	O-122 Biocatalytic Activity of Pseudomonas Cepacia Lipase Immobilized in Novel Silica Hosts Presenter: Vadim V. Guliants
4:40 PM	O-93 H3PW12O40 Supported On Mesoporous MCM-41 And -48 Types: Effect Of Dispersion Method On Structural Stability Of Materials Presenter: Jose Aaron Melo Banda	O-107 Preparation of Fe-ZSM-5 with Enhanced Activity and Stability for Selective Catalytic Reduction of NOx Presenter: K. Krishna	O-123 Chloroaluminate Ionic Liquids as Conversion Agents for Arene Formylation Presenter: Mark G. White
5:15 - 6:45 PM	**Special Panel Discussion: Advance Facility Needs for Catalysis (Room – Wyndham A) Organizers: Raul Miranda and Jingguang Chen**		
5:30 - 8:00 PM	**Poster Session in the Conference Center Hall – Sponsored by Degussa**		
7:30 PM	**Catalysis Letters Sponsored Drawing**		

2005 NAM Oral Presentations – Tuesday PM, May 24

Time	Wyndham D	Salon 5/6	Salon 10
	Alternate Sources of Hydrogen	**Gas to Liquids**	**Hydrogenation / Dehydrogenation**
1:30 PM	O-132 Oxidation of CO in H_2 by Aqueous Polyoxometalates Over Metal Catalysts Presenter: James A. Dumesic, Keynote Lecture	O-148 Development of Highly Dispersed, Fe/Al_2O_3 Fischer-Tropsch Catalysts Presenter: Hu Zou	O-164 An Investigation of the Effect of Pretreatment Variables on the Performance and Microstructure of Pt/Ru Bimetallic Catalysts for the Liquid Phase Hydrogenation of 2-Butanone Presenter: John Breen
1:50 PM		O-149 Fischer-Tropsch Synthesis - Mechanism Studies with Deuterium Isotopic Tracers Presenter: Burtron H. Davis	O-165 Selective Hydrogenation of Adiponitrile over Raney Catalysts Presenter: Sourav K. Sengupta
2:10 PM	O-133 Mechanism of Catalytic Steam Reforming of Biomass Related Oxygenates Presenter: K. Seshan	O-150 Effect of Metal Crystallite Size in Supported Iron Based Fischer-Tropsch Catalysts Presenter: Michael Claeys	O-166 The Use of Carbon-Templating for the Improved Yield of Primary Amines via the Hydrogenation of Nitriles over Activated Ni Catalysts Presenter: Daniel Ostgard
2:30 PM	Coffee Break		
3:00 PM	O-134 An Integrated Catalytic Process for Conversion of Biomass to Hydrogen Presenter: Martin Abraham	O-151 Probing Fischer-Tropsch Synthesis with Acetylenic Molecules Presenter: Yulong Zhang	O-167 Heterogeneous Hydrogenation for Fine Chemicals Production: Challenges and Solutions Presenter: Hans-Ulrich Blaser, Keynote Lecture
3:20 PM	O-135 Selective Production of H_2 from Bio-Ethanol at Low Temperatures over Rh/CeO_2-ZrO_2 Catalysts Presenter: Yong Wang	O-152 CO_2-Methane Reactions – Catalyst Characterization Presenter: James J. Spivey	
3:40 PM	O-136 Biomimetic Hydrogen Production Presenter: Ib Chorkendorff	O-153 Methyl Halide Conversion to Light Olefins over a SAPO-34 Catalyst Presenter: Stian Svelle	O-168 Systematic Kinetic and Theoretical Study of Enantioselective 1-Phenylpropane-1,2-Dione Hydrogenation Presenter: Esa Toukoniitty
4:00 PM	O-137 Steam Reforming of Methanol over Novel Cu/ZrO2/ CeO_2 Catalysts Presenter: Agnes Mastalir	O-154 Direct Oxidation of Methane to Acetic Acid Catalyzed by Pd2+ in the Presence of Oxygen Presenter: Mark Zerella	O-169 Supported Pd Catalysts for Arylketone Hydrogenation: Catalyst Performance, Characterization and Deactivation Studies Presenter: Nakul Thakar
4:20 PM	O-138 *In situ* Time-resolved Characterization of Cu- CeO_2 Catalysts during the Water Gas Shift Reaction Presenter: Xianqin Wang	O-155 Mo/ZSM-5 and Mo/MCM-22 Prepared by Chemical Vapor Deposition of Mo(CO)6: Highly Active and Stable Catalysts for Oxygen-free Methane Aromatization Presenter: Azfar Hassan	O-170 TiO_2-Supported RuSn Catalysts for Dimethyl Adipate Selective Hydrogenation Presenter: Marco A. Fraga
4:40 PM	O-139 A Renewable System for Pure Hydrogen Generation at Ambient Temperature Presenter: X.D. Hu	O-156 Dynamic Electronic and Molecular States of Surface Mo Species in Mo/HZSM5 Catalyst: in situ UV Raman and UV-Vis DRS Spectroscopy Studies during CH4 Aromatization Presenter: Hanjing tian	O-171 Solvent Effects in Liquid-Phase Hydrogenation Reactions Presenter: Albert Vannice
5:15 - 6:45 PM	**Special Panel Discussion: Advance Facility Needs for Catalysis (Room – Wyndham A)** **Organizers: Raul Miranda and Jingguang Chen**		
5:30 - 8:00 PM	**Poster Session in the Conference Center Hall – Sponsored by Degussa**		
7:30 PM	**Catalysis Letters Sponsored Drawing**		

2005 NAM Oral Presentations – Wednesday AM, May 25

Time	Wyndham A	Wyndham B	Wyndham C
8:30 AM 8:50 AM 9:10 AM	O-172 First Principles Elucidation and Design of Catalytic Sites and their Environments Presenter: Matthew Neurock, Emmett Awardee (Room – Wyndham AB)		
9:30 AM	Coffee Break		
	Surface Science in Catalysis	**Environmental: Diesel Engines**	**Selective Oxidation**
10:00 AM 10:20 AM	O-173 In-situ Characterization of (De)Activation of Cu Methanol Catalysts Presenter: Alfons Molenbroek, Keynote Lecture	O-186 Overview: NOx Adsorber Catalysis for Diesel Emission Control Presenter: Jim Parks, Keynote Lecture	O-200 Olefin Epoxidation on Silver: From Mechanism to Catalyst Design Presenter: Mark A. Barteau, Keynote Lecture
10:40 AM	O-174 High-Sensitivity LEIS for Understanding the Performance of Catalysts Presenter: Hidde H. Brongersma	O-187 A Novel Pd/MgAlOx Catalyst for NOx Storage Reduction Presenter: Henry Lamb	O-201 Ethylene Production via Oxidative Dehydrogenation in the Presence of Highly Active Nickel-Based Catalysts Presenter: Eleni Heracleous
11:00 AM	O-175 Structure and Reactivity of V-Doped and Supported V Oxide Thin Films Presenter: Eric Altman	O-188 Lean NOx Trap Behavior of $Pt/K/Al_2O_3$ Presenter: Todd J. Toops	O-202 Kinetic Features of Hydrogen Formation during Oxidative and Non-Oxidative Dehydrogenation of Ethane Presenter: Mikhail Sinev
11:20 AM	O-176 Structure of CeO_2 Films Supported on ZrO2(100) Presenter: John Vohs	O-189 NO Oxidation Reaction Kinetics on Pt/Al_2O_3 and $Pt/K/Al_2O_3$ Catalysts Presenter: Fabio H. Ribeiro	O-203 Binary Dispersed Oxide Catalysts for Propane Oxidative Dehydrogenation Presenter: Shuwu Yang
11:40 AM	O-177 X-ray Standing Wave Imaging Study of W Supported on TiO_2(110) Presenter: Chang-Yong Kim	O-190 The Nature of Nitrate Species on BaO/Al_2O_3 NOx Storage/Reduction Materials Presenter: Janos Szanyi	O-204 The Selective Epoxidation of Conjugated Olefins Containing Allylic Substituents and Epoxidation of Propylene in the Presence of Butadiene Presenter: Jerome Stavinoha
12:00 PM	Lunch		

2005 NAM Oral Presentations – Wednesday AM, May 25

Time	Wyndham D	Salon 5/6	Salon 10
8:30 AM 8:50 AM 9:10 AM	O-172 First Principles Elucidation and Design of Catalytic Sites and their Environments Presenter: Matthew Neurock, Emmett Awardee (Room – Wyndham AB)		
9:30 AM	Coffee Break		
	Alternate Sources of Hydrogen	**Gas to Liquids**	**Novel Compact Reactors**
10:00 AM 10:20 AM	O-213 Nanostructure of a High-Permeability, Hydrogen-Selective Inorganic Membrane Presenter: Ted Oyama, Keynote Lecture	O-225 Mechanisms and Structure Requirements for CH4-O2 Reaction to Synthesis Gas on Metal Clusters Presenter: Enrique Iglesia, Keynote Lecture	O-238 Concurrent Design of Microchannel Reactors and Adapted Catalysts Presenter: Anna Lee Tonkovich, Keynote Lecture
10:40 AM	O-214 Improvement of Methanol Steam Reformer for H_2 Production by Addition of Metal Foam in Both the Evaporator and the Catalytic Reactor Presenter: Dr. Catherine Louis	O-226 Methane over Precious Metal Catalysts: The First Stage in Gas to Liquid Conversion Presenter: S. David Jackson	O-239 Design Principles Of Multifunctional Microdevices Presenter: Soumitra Deshmukh
11:00 AM	O-215 Steam Reforming of Lower Alkanes over Lanthanide-Promoted Sol-Gel Nickel Catalysts Supported on Alumina Presenter: Umit S. Ozkan	O-227 Mechanism of Autothermal Reforming of Methane on Supported Ni Catalysts Presenter: Fabio Barboza Passos	O-240 Compact String Reactor for Autothermal Hydrogen Production Presenter: Lioubov Kiwi-Minsker
11:20 AM	O-216 The Effect of H2S, CO, CO_2 and H2O on the H2-Permeance of Palladium-Copper Alloys Presenter: Osemwengie Iyoha	O-228 Partial Oxidation of Methane for the Production of Synthesis Gas Using Pt/CexZr1-xO2 and Pt/CexZr1-xO2/Al_2O_3 Catalysts Presenter: Fábio Bellot Noronha	O-241 Compact, Efficient Microreactors for Steam Reforming of Methanol Presenter: Ayman Karim
11:40 AM	O-217 Diesel and LPG Desulfurization for High Temperature Fuel Cells Presenter: Sai Katikaneni	O-229 Effect of CeO_2 Loading on the Properties and Catalytic Behavior of CeO_2-Al_2O_3-Supported Pd Catalysts on Partial Oxidation of Methane Presenter: Carla E. Hori	O-242 Pre-Saturation in Multiphase Fixed-Bed Reactors as a Method for Process Intensification / Reactor Minimization Presenter: Leonid Datsevich
12:00 PM	Lunch		

2005 NAM Oral Presentations – Wednesday PM, May 25

Time	Wyndham A	Wyndham B	Wyndham C
	Petroleum Processing	**Environmental: Diesel Engines**	**Selective Oxidation**
1:30 PM	O-178 Hydride Transfer in Catalytic Cracking Presenter: Rostam J. Madon, Keynote Lecture	O-191 TAP® Studies of NOx Storage and Reduction: Elucidating the Kinetics and Mechanism on Model Pt/BaO/Alumina Catalysts Presenter: Michael P. Harold	O-205 Strategies for the Selective Catalytic Oxidation of Alkanes Presenter: James Brazdil, Keynote Lecture
1:50 PM		O-192 Intra-channel Evolution of Carbon Monoxide and its Implication on the Regeneration of Monolithic NOx Storage-Reduction Catalyst Based on $Pt/K/Al_2O_3$ Presenter: Jae-Soon Choi	
2:10 PM	O-179 Beta/HZSM-5 Composite Carrier Supported Catalysts for Olefin Reduction of FCC Gasoline via Hydroisomerization and Aromatization Presenter: Xiaojun Bao	O-193 NOx Storage and Reduction over Pt Based Catalysts with Hydrogen as Reducing Agent. Influence of H2O and CO_2. Presenter: Anna Söderholm	O-206 Control of Product Selectivity over Terrestrial/Control and Flight Zeolite Beta in the Meerwein-Ponndorf-Verley-Oppenauer Reactions Presenter: Burcu Akata
2:30 PM	Coffee Break		
3:00 PM	O-180 Making Ethylene in the FCC Presenter: Arthur W. Chester	O-194 Lean-Rich Cycles and Catalytic Performances of $Pt-Ba/Al_2O_3$ LNT Catalysts Presenter: Lidia Castoldi	O-207 The Dilution of V/P/O, Catalyst for n-Butane to Maleic Anhydride, with Al Phosphate: Unexpected Reactivity Due to the Contribution of the Dispersing Agent Presenter: Carlotta Cortelli
3:20 PM	O-181 Fischer-Tropsch Waxes Good Feedstocks for Fluid Catalytic Cracking Presenter: Michiel Makkee	O-195 Phosphorus Deactivation of Lean NOx Traps Presenter: Ronald Silver	O-208 A Study of the Surface Region of the Mo-V-Te-O Catalysts for Propane Oxidation to Acrylic Acid Presenter: Vadim V. Guliants
3:40 PM	O-182 Developing Low NOx, CO Combustion Promoter Using Cyclic Deactivation and In-situ Coke Combustion Presenter: Lin Luo	O-196 On the Deactivation of NO_x Storage on Pt-Ba/γ-Alumina Presenter: Hai-Ying Chen	O-209 Transient and Steady State IR and MS study of Partial Oxidation of Propylene over Rh/Al_2O_3 and Au/TiO_2 Presenter: Rajesh Khatri
4:00 PM	O-183 Activity, Structural Collapse, and Reconstruction of Brønsted-Acid Sites in Zeolites: Kinetics and Characterization Presenter: Jeroen A. van Bokhoven	O-197 Investigations of SO2 Poisoning and Thermal Aging Mechanisms for $Pt/BaO/Al_2O_3$ Lean NOx Trap Catalysts Presenter: Do Heui Kim	O-210 Preparation of Ag-K-Cl/CaCO3 for Direct Vapor Phase Epoxidation of Propylene to Propylene Oxide Presenter: Jaap van Hal
4:20 PM	O-184 Observation of Compensation Relation for n-Hexane Adsorption in Zeolites with Different Structures Presenter: Jeff Miller	O-198 Mechanisms of Deactivation by SO2 of Lean NOx Trap Catalysts Presenter: Sonia Hammache	O-211 Selective Oxidation of Propylene to Oxygenates over Supported Vanadium Oxide Catalysts Presenter: Chunli Zhao
4:40 PM	O-185 Test Reaction for Low-Temperature Hydride Transfer Activity of Solid Acids Presenter: Alex Platon	O-199 High Capacity Sulfur Dioxide Absorbents for Diesel Engine Emissions Control Presenter: David L. King	O-212 Effects of Alkali Metal Cations on the Structures and Catalytic Behaviors of Silica-supported Vanadium Catalysts for the Selective Oxidation of Ethane Presenter: Zhen Zhao
5:30 - 8:00 PM	**Poster Session in the Conference Center Hall**		
7:30 PM	**Catalysis Letters Sponsored Drawing**		

2005 NAM Oral Presentations – Wednesday PM, May 25

Time	Wyndham D	Salon 5/6	Salon 10
	Fuel Reforming	**Nanotechnology in Catalysis**	**Hydrogenation / Dehydrogenation**
1:30 PM	O-218 Reforming for Fuel Cells Presenter: Jens Rostrup-Nielsen, Plenary Lecture	O-230 Synthesis and Applications of Nanostructured Catalysts Presenter: Jackie Y. Ying, Keynote Lecture	O-243 Development of Practical Asymmetric Hydrogenation Catalysts Presenter: Xumu Zhang, Keynote Lecture
1:50 PM			
2:10 PM		O-231 Nanostructured Membrane Catalysts Presenter: Peter C. Stair	O-244 Development Strategy of SEGPHOS and Smart Approaches to β-Amino Acids Presenter: Takao Saito
2:30 PM	Coffee Break		
3:00 PM	O-219 The Role of Ni in the Development of Sulfur and Carbon Resistant Catalysts for the Steam Reforming of Liquid Fuel Presenter: James J. Strohm	O-232 The Structure of Catalytically Active Gold on Titania Presenter: Mingshu Chen	O-245 Ru-(Phosphino-Oxazoline) Complexes Are Effective, Industrially Viable Hydrogenation Catalysts for the Enantioselective Hydrogenation of Aryl Ketones Presenter: Marc Thommen
3:20 PM	O-220 Autothermal Reforming of Logistics Fuel Surrogates Presenter: Benjamin Gould	O-233 The Importance of the Nanoenvironment of Supported Gold Catalysts in the Activity Control Presenter: Jozsef Margitfalvi	O-246 A New Synthetic Modifier for the Pt-Catalyzed Enantioselective Hydrogenation of Fluorinated Ketones Presenter: Tamas Mallat
3:40 PM	O-221 Dry reforming of CH4: Effect of lanthanum addition to ZrO_2 support on the catalytic properties of Ni Presenter: Gabriela Diaz	O-234 Supported Gold Clusters and Cluster-Based Nanomaterials: Characterization, Stability and Growth Studies by In Situ Grazing Incidence X-ray Small Angle Scattering Presenter: Stefan Vajda	O-247 Preparation of Novel Pd-MCM Catalysts, Characterizaion and Application in Organic Reactions Presenter: Agnes Mastalir
4:00 PM	O-222 Catalysts Design for Methane Partial Oxidation Presenter: Paolo Fornasiero	O-235 Nanoporous Architectures For Controlling The Stability Of Au/ SiO_2 For CO Oxidation Presenter: Mangesh T. Bore	O-248 The Role of β-PdH in Selective Hydrogenation of 1,3-Butadiene Presenter: Qi Sun
4:20 PM	O-223 In Situ Spectroscopic Characterization During Fuel Reforming at 1000 oC: Breaking the Spectroscopic Temperature Barrier Presenter: Xiang Wang	O-236 Layer-By-Layer Functionalization of Nanoporous Materials for Preparation of Highly Active and Stable Ultrasmall Gold Nanoparticles for Oxidation Catalysis Presenter: Sheng Dai	O-249 Structural and Catalytic Investigation of Active-Site Isolated Pd-Ga and Pd-Sn Intermetallic Compounds Presenter: Jurgen Osswald
4:40 PM	O-224 Investigation of Structure-Property Relationship of Perovskites as Diesel Reforming Catalysts for Solid Oxide Fuel Cell Applications Presenter: Di-Jia Liu	O-237 Nanostructures in Synthesis of Heterogeneous Catalysts Presenter: Harold Kung	O-250 Parameters of the Preparation of Cu-Zn/ SiO_2 Catalysts Favoring the Cu0-Zn_2+ Interactions Characterized by the Reaction of Selective Hydrogenation of Crotonaldehyde Presenter: Helene Lauron-Pernot
5:30 - 8:00 PM	**Poster Session in the Conference Center Hall**		
7:30 PM	**Catalysis Letters Sponsored Drawing**		

2005 NAM Oral Presentations – Thursday AM, May 26

Time	Wyndham A	Wyndham B	Wyndham C
	Petroleum Processing	**Alternate Sources of Hydrogen**	**Selective Oxidation**
8:30 AM	O-251 Supports of Hydrotreating Catalysts: Where Is the Future? Presenter: Michel Vrinat, Keynote Lecture	O-268 Photocatalytic Decomposition of Water in the Separation of the Evolved Hydrogen and Oxygen using Visible Light-Responsive TiO_2 Thin Films Presenter: Masakazu Anpo, Keynote Lecture	O-284 New Approaches to Designing Selective Oxidation Catalysts Presenter: Graham Hutchings, Plenary Lecture
8:50 AM			
9:10 AM	O-252 SBA-15 type mesostructured materials prepared by ZSM-5 dissolution and their application to heavy aromatics hydrogenation dealkylation Presenter: Ying Zhang	O-269 Photochemical Reactivity of Titania Supported by a Ferroelectric Substrate Presenter: Gregory S. Rohrer	
9:30 AM	Coffee Break		
10:00 AM	O-253 Catalytic Properties of Mesostructured Alumina and Aluminosilicate Presenter: Thomas J. Pinnavaia	O-270 H_2 Production by Zn Hydrolysis in a Hot-Wall Aerosol Reactor Presenter: Sotiris E. Pratsinis	O-285 An Overview of Gold Catalysed Oxidation Processes Presenter: David Thompson, Keynote Lecture
10:20 AM	O-254 Study of PtMo catalysts for HDN reaction. Presenter: Martin Schmal	O-271 One Step Hydrogen Production by Catalytic Dehydrogenation of Alkanes Presenter: Naresh Shah	
10:40 AM	O-255 Dispersed Molybdenum Hydro Processing Catalysts Produced from Microemulsions in a Continuous Mode Presenter: Josephine M. Hill	O-272 Hydrogen Production from Ammonia Decomposition: Hierarchical, Multiscale Microkinetic Modeling and Microreactor Simulation Presenter: Dionisios G. Vlachos	O-286 A Novel Method to Enhance the Au Capture Efficiency and Activity of Propylene Epoxidation Catalysts Presenter: Lasitha Cumaranatunge
11:00 AM	O-256 Synthesis and Characterization of $NiMo/Al_2O_3$-Cl Catalysts: Impact of Hydroprocessing of Different Gas Oils Derived from Athabasca Bitumen Presenter: Deena Ferdous	O-273 DME – The Sustainable Fuel for the Future. A Novel Approach for Supplying Hydrogen Onboard Heavy-Duty Trucks. Presenter: Lars J. Pettersson	O-287 The Role of Gold in Gold-Titania Based Epoxidation Catalysts Presenter: Xander Nijhuis
11:20 AM	O-257 Catalyst Deactivation in Residual Oil Hydrotreating:Effect of Original and Partially Hydrotreated Feedstocks Presenter: Dr. Abdulazim Marafi	O-274 Surface Studies on Highly Active CeO_2 suppoerted CuPd Bimetallic Catalysts for the Oxygen-Assisted Water-Gas-Shift Reaction Presenter: Elise Bickford Fox	O-288 Epoxidation of Indene and Cyclooctene on Nanocrystalline Anatase Titania Catalyst Presenter: Veda Ramaswamy
11:40 AM	O-258 Simulating the Adsorption of Asphaltenes on Macroporous Materials using Model Molecules Presenter: Manuel Gonzalez	O-275 Steam Reforming of Ethanol over Supported Co and Ni Catalysts Presenter: Edd A. Blekkan	O-289 Propane Ammoxidation on Bulk, Diluted and Supported Vsb Oxides Presenter: Shahid Shaikh
12:00 PM	Lunch		

2005 NAM Oral Presentations – Thursday AM, May 26

Time	Wyndham D	Logans 1	Salon 10
	Fuel Reforming	**Nanotechnology in Catalysis**	**Catalysis in Supercritical Media Novel Reaction Engineering**
8:30 AM	O-298 Reforming Catalyst Development for Distributed Hydrogen Production Presenter: Theodore Krause	O-314 Characterization and Reactivity of Supported Cesium Catalysts for Olefin Isomerization, Hydrocarbon Oxidation and Aldol Condensation Presenter: Robert Davis	O-332 Comparison of Powder and Shape Formed Catalysts for the Decomposition of Energetic Ionic Liquids Presenter: Charles Kappenstein
8:50 AM	O-299 Influence of Copper on Noble Metal Methanol Autothermal Reforming Catalysts Presenter: Easwar S. Ranganathan	O-315 Selective Oxidation Catalysis on Multiple Length Scales: Surfaces, Nanoparticles and Bulk Oxides for Propane Oxidation to Acrylic Acid Presenter: Vadim V. Guliants	O-333 Synthesis of γ-methyl-α-methylene-γ-butyrolactone in sc CO_2 Presenter: Keith Hutchenson
9:10 AM	O-300 Catalytic Activity and Characterization of PdZnO Catalysts Presenter: Yong Wang	O-316 Catalysis at a Single Molecule Level: A Time-lapsed STM Investigation of the Adsorption and Diffusion Behaviour of Cinchonidine and related Molecules on Pt(111) and Pd(111) Presenter: Matthias von Arx	O-334 Homogeneous Catalysis in High-Temperature Water Presenter: Prof. Phillip Savage
9:30 AM	Coffee Break		
10:00 AM	O-301 Catalysts to Produce Hydrogen for Fuel Cells Presenter: Jon P. Wagner, Keynote Lecture	O-317 Synthesis and Adsorption of Dendrimer Stabilized Nanoparticles on Oxide Supports Presenter: Christopher T. Williams	O-335 Hydrogenation of Polystyrene in Solvents Expanded by Supercritical Carbon Dioxide Presenter: George W. Roberts
10:20 AM		O-318 Dendrimer Encapsulated Nanoparticles for the Controlled Preparation of Bimetallic Catalysts Presenter: Bert Chandler	O-336 Supercritical Fluid Regeneration of Spent 12 Member-Ring Zeolite Alkylation Catalysts Presenter: Lucia M. Petkovic
10:40 AM	O-302 Study of water-gas shift (WGS) and methanation reaction on supported Pt catalysts Presenter: Fabio H. Ribeiro	O-319 Dendrimer-Stabilized Nanoparticles for Advanced Catalyst Synthesis Presenter: Christopher T. Williams	O-337 New Developments for Catalytic Hydroamination: Organometallic Complexes Immobilized in Supported Ionic Liquids Presenter: Thomas E. Müller
11:00 AM	O-303 Combined DRIFTS-MS-SSITKA analysis for the determination of reaction intermediates of the reverse Water-Gas-Shift reaction Presenter: Frederic Meunier	O-320 Supported Metal Catalysts - Some Interesting New Leads In An Old Field Presenter: Stuart Soled	O-338 Toward Catalyst Design by Discovery Informatics Presenter: W. Nicholas Delgass, Keynote Lecture
11:20 AM	O-304 Mechanism of Deactivation of Cu-containing Water-Gas Shift Catalyst for Fuel Cell Applications Presenter: Oleg Ilinich	O-321 Nanoparticle-supported WO_x/ZrO_2: Elucidating the Role of Polytungstates in Methanol Dehydration Presenter: Michael S. Wong	
11:40 AM	O-305 Oxygen addition fully stabilizes the water-gas shift activity of gold-ceria catalysts Presenter: Maria Flytzani-Stephanopoulos	O-322 Novel Highly Dispersed Tungsten Oxide Catalysts on Mesoporous Silica obtained by Atomic Layer Deposition Presenter: Jose Herrera	O-339 Microwave Effects in Catalysis: An Effective Temperature Presenter: W. Curtis Conner
12:00 PM	Lunch		

2005 NAM Oral Presentations – Thursday PM, May 26

Time	Wyndham A	Wyndham B	Wyndham C
	Petroleum Processing	**Environmental: Stationary Pollution Abatement**	**Selective Oxidation**
1:30 PM	O-259 n-Butane Isomerization on Sulfated Zirconia: The Effect of Nonspecific Olefin Addition Presenter: Nattaporn Lohitharm	O-276 Catalyst Library Design for Methane Oxidation Presenter: Jozsef Margitfalvi	O-290 Genesis of Catalytic Activity of Crystalline Mo-V-O Based Complex Oxides for Selective Oxidation of Alkane Presenter: Wataru Ueda, Keynote Lecture
1:50 PM	O-260 Butane Isomerization on Sulfated Zirconia: Reaction Mechanism and Key Components for the Active Sites Presenter: Johannes Lercher	O-277 Manganese Substituted Hexaaluminate for Catalytic Combustion Prepared through Co-Precipitation in Microemulsion Presenter: Erik Elm Svensson	
2:10 PM	O-261 New Insights into the Nature of the Acidic Catalytic Active Sites Present in Supported WOB3B/ZrOB2B Catalysts Presenter: Elizabeth Ross	O-278 Direct Decomposition of N_2O at Low(er) Temperature: A Synergistic Effect in Iron-Ruthenium-Zeolite Catalysts for N_2O Decomposition in the Presence of NO Presenter: J.A.Z. Pieterse	O-291 Novel Supports for Immobilization of MP-11 Presenter: Kenneth J. Balkus, Jr.
2:30 PM	Coffee Break		
3:00 PM	O-262 Coke Formation: UV Raman and GC-MS Studies of Methanol to Hydrocarbons Conversion over H-MFI with Different Si/Al Ratios Presenter: Chao Zhang	O-279 Dynamics of N_2O Decomposition over Fe/ZSM-5 Catalysts: Effects of NO, H_2O and O_2 Presenter: Dmitri A. Bulushev	O-292 Catalytic Multifunctional Nanoarrays and Crystalline Nanoporous Materials Presenter: Craig L. Hill
3:20 PM	O-263 On Direct Examination of Acidity in Working Bifunctional Zeolite Catalysts used for Aromatization of Light Alkanes Presenter: Dmitry Lukyanov	O-280 Cold Plasma and a Catalyst. How Does this System Work in Toluene Removal from Air? Presenter: J.M. Tatibouet	O-293 Disperse VO_x Containing Mixed Oxides: Suitable Catalysts for 2-4 Electron Oxidations Presenter: Bernd Kubias
3:40 PM	O-264 Nature and Chemical Reactivity of Ga Species in ZSM-5 Zeolite for Alkane Activation Presenter: Neelesh Rane	O-281 Combustion of Butyl Carbitol Using Supported Palladium Catalysts Presenter: Carla E. Hori	O-294 Kinetics, Mechanism, and Site Requirements for Alkane and Cycloalkane Oxidation on MeAPO Catalysts Presenter: Bjorn Moden
4:00 PM	O-265 Aromatization of n-Hexane on Mo2C Catalysts Presenter: Prof. Frigyes Solymosi	O-282 Effect of Support on the Activity of Gold Catalysts in CO Oxidation Presenter: Unnikrishnan Pillai	O-295 Development of Higher Performance VAM Catalysts Presenter: Roman Renneke
4:20 PM	O-266 A New HOUDRY® Catalyst for the "Third Wave" - Propane Dehydrogenation Presenter: Michael A. Urbancic	O-283 Mesoporous Al_2O_3 Prepared via Sol-Gel, and Its Application in the Hydrodechlorination of 1,2-Dichloroethane Presenter: Leon Albarran	O-296 A Continuous Process to Synthesize Multicomponent Metal Oxides using In situ Mixing, Nozzle and Microwaves Presenter: Laura Espinal
4:40 PM	O-267 Alkane Dehydrogenation on Active and Stable Pt/Na-[Fe]ZSM5 and Ga/H-[Al]ZSM5 Catalysts and O2 Staging for Selective H_2 Removal Presenter: Enrique Iglesia		O-297 Selective Oxidation of Methanol to Methylformate and Dimethoxymethane on Supported RuO_x and PdO_x/Pd Clusters Presenter: Janine Lichtenberger
6:00 - 10:00 PM	**Conference Banquet in Wyndham Ballroom**		

2005 NAM Oral Presentations – Thursday PM, May 26

Time	Wyndham D	Logans 1	Salon 10
	Fuel Reforming	**Nanotechnology in Catalysis**	**Membrane Reactors Photocatalysis**
1:30 PM	O-306 Pt-Re Catalysts for Water-Gas Shift in Fuel Processor Applications Presenter: Michael W. Balakos	O-323 Nitrogen-Containing Carbon Nanotubes as Solid Base Catalysts Presenter: Harry Bitter	O-340 Performance of Palladium Catalysts on Hydrogen Transport Membranes Exposed to Water-Gas Shift Reactants at High Pressure Presenter: Michael V. Mundschau
1:50 PM	O-307 Combinatorial Methods for the Discovery of Novel Catalysts for the WGS Reaction Presenter: Chris Brooks	O-324 Different (n,m) Single-Walled Carbon Nanotube Structures Obtained over CoMo Catalysts by Varying the Support Presenter: Daniel Resasco	O-341 Synthesis Gas Generation Using Ionic/Electronic Oxygen Permeable Membranes Presenter: David Slade
2:10 PM	O-308 Selective Oxidation of CO Under Excess H_2 Conditions Over Ru-based Catalysts Presenter: Michael Amiridis	O-325 In-situ X-ray Absorption Spectroscopic Investigation of the Mechanism of Nanotube Diameter Control in the Synthesis of Single Wall Carbon Nanotubes on Co-MCM-41 Catalysts Presenter: Dragos Ciuparu	O-342 A Novel Nanoporous Membrane Catalyst for Selective Oxidation Presenter: Guang Xiong
2:30 PM	Coffee Break		
3:00 PM	O-309 Carbon Monoxide Removal from Hydrogen Streams for Fuel Cell Applications Presenter: David Trimm, Keynote Lecture	O-326 Structural Characterization of Highly Dispersed Pt-Ru/γ-Al_2O_3 Prepared from $Pt_3Ru_6(CO)_{21}(m3\text{-}H)(m\text{-}H)_3$ Presenter: B. C. Gates	O-343 Photocatalysis for "Self-cleaning" Surfaces Presenter: Prof. David Ollis, Keynote Lecture
3:20 PM		O-327 Flame-made Pd/La_2O_3/Al_2O_3 and Pd-Pt/Al_2O_3 Nanoparticles: Thermal Stability and Catalytic Behavior in Methane Combustion Presenter: Reto Strobel	
3:40 PM	O-310 Innovative Approach of Removing Carbon Monoxide from Reformate using Non-Nobel Metal based Catalyst for PEM Fuel Cell Applications Presenter: Sai P. Katikaneni	O-328 Supported Pt Nanoparticles with Well-Defined Surface Structure: Synthesis, Characterization and Catalytic Reaction Studies Presenter: Robert Rioux	O-344 Direct (one-step) Synthesis of TiO_2 and Pt/TiO_2 Nanoparticles for Photocatalytic Mineralisation of Sucrose Presenter: Prof. Sotiris Pratsinis
4:00 PM	O-311 Alkali Effects on Rates and Selectivity for CO oxidation in H_2-CO Mixtures Catalyzed by Supported Pt Clusters Presenter: Enrique Iglesia	O-329 Fabrication of Platinum Nanoparticles and Nanowires by Electron Beam Lithography (EBL) and Nanoimprint Lithography (NIL): Comparison of Their Kinetics for Ethylene Hydrogenation Presenter: Anthony Contreras	O-345 Photocatalytic Conversion of Phenol and Silver Presenter: Hugo de Lasa
4:20 PM	O-312 Preferential Oxidation of CO over Mixed Oxide Supported Au Catalysts Presenter: Susan M. Stagg-Williams	O-330 Probing Size Evolution of Molecularly-Capped Metal Nanoparticles Under Thermal Treatment Using Atomic Force Microscopy Presenter: Chuan-Jian Zhong	O-346 Photochemical Anisotropy of $BaTiO_3$, $SrTiO_3$ and $Sr_2Nb_2O_7$ Presenter: Gregory S. Rohrer
4:40 PM	O-313 X-Ray Absorption Spectroscopy and Isotopic Transient Analysis of Supported Au Catalysts for CO Oxidation Presenter: Robert J. Davis	O-331 An Evaluation of Pt Sulfite Acid (PSA) as Precursor for Supported Pt Catalysts Presenter: John R. Regalbuto	O-347 Preparation of Nanostructured TiO_2 Photocatalytic Films and Membranes Using Sol-Gel Methods Modified with Surfactants Presenter: Dionysios D. Dionysiou
6:00 - 10:00 PM	**Conference Banquet in Wyndham Ballroom**		

2005 NAM Oral Presentations – Friday AM, May 27

Time	Wyndham A	Wyndham B	Wyndham C
	Petroleum Processing	**Environmental: Stationary Pollution Abatement**	**Photocatalysis**
8:30 AM	O-348 Lube Hydroprocessing Presenter: Michel Daage, Keynote Lecture	O-356 State-of-the-Art Methods for the Development of Automotive Catalysts Presenter: Dr. Egbert Lox, Keynote Lecture	O-364 Transient Photocatalytic Oxidation and Decomposition Presenter: John L. Falconer, Keynote Lecture
8:50 AM			
9:10 AM	O-349 Synthesis, Characterization and Hydrotreating Studies of Alumina-Supported Nickel-Tungsten Nitride Catalysts with Phosphorus Additive Presenter: Ajay K. Dalai	O-357 Selective Catalytic Reduction of NOx in Real Exhaust Gas of Gas Engines using Unburned Gas: Catalyst Deactivation and Advances toward Longterm Stability Presenter: J.A.Z. Pieterse	O-365 Highly Uniform Ag/TiO_2 and Au/TiO_2 Nanoparticle Catalysts by Photodeposition Presenter: Sze Chi Chan
9:30 AM	Coffee Break		
10:00 AM	O-350 Sulfur and Nitrogen Sensitivity in Noble Metal Catalysts for Deep Hydrotreating Presenter: Johannes Lercher	O-358 Characteristics of Copper exchanged Mordenite Catalyst Deactivated by HCl for the Reduction of NOx with NH3 Presenter: Jin Woo Choung	O-366 In situ IR Study of Photocatalytic Oxidation Mechanism of Methylene Blue on Platinized TiO_2 Presenter: Zhiqiang Yu
10:20 AM	O-351 Strategies to Maximize Cetane Number in Diesel Fuels Presenter: Daniel Resasco	O-359 Two-Stage Catalytic Reduction of NOx with Methane under Lean Conditions Presenter: Umit S. Ozkan	O-367 Photocatalytic Properties of ETS-10 Presenter: Anne Marie Zimmerman
10:40 AM	O-352 Ring Opening of Naphthenic Structures for Diesel Quality Improvement Presenter: Ulf Nylén	O-360 Selective Catalytic Reduction of NO with Methane or Ethanol over Silver Alumina in the Presence of Large Amounts of SO2 and H2O Presenter: Xiaoyan She	O-368 Theoretical Investigation of Formaldehyde Photocatalyzed Oxidative Degradation Mechanisms on Hydrated Anatase (101) Surfaces Presenter: Susanne Opalka
11:00 AM	O-353 Pt-Ge catalysts : A New Bimetallic System for Alkane Transformation ? Presenter: Laurence Pirault-Roy	O-361 Highly Active Layered Oxide-Zeolite Catalyst for SCR of NO with CH_4 Presenter: Chul Wee Lee	O-369 Photocatalytic Degradation of Paracetamol Presenter: Edgar Moctezuma
11:20 AM	O-354 Platforming Catalyst Development: Progress in Non-Metal Catalysts using Combi High Pressure Reactor Presenter: Maureen Bricker	O-362 Mechanistic Pathways of Low Temperature SCR of NO with NH_3 using ^{15}NO, $^{15}NH3$ and $^{18}O_2$ Labeled Species over MnO_x/TiO_2 Catalysts Presenter: P.G. Smirniotis	O-370 Photocatalytic Reduction of Nitrobenzene: Side Reactions Presenter: Sergio Odin Flores
11:40 AM	O-355 Preparation and Characterization of Trimetallic Pt-Re-Ge/Al_2O_3 and Pt-Ir-Re-Ge/Al_2O_3 Reforming Catalysts Presenter: Florence Epron	O-363 Investigation of Sulfation on Vanadia/Titania Dioxide Catalyst Presenter: Xiaoyu Guo	O-371 Artificial Photosynthesis: Light Harvesting Organic Molecule Assisted CO_2 Reduction over TiO_2 Presenter: Deniz Uner
12:00 PM	**Close of the 19th NAM**		

2005 NAM Oral Presentations – Friday AM, May 27

Time	Wyndham D	Salon 10	
	Fuel Reforming	**Nanotechnology in Catalysis**	
8:30 AM	O-372 Hydrogen and Chemicals from Fossil and Renewable Fuels by Autothermal Reforming Presenter: Lanny D. Schmidt, Keynote Lecture	O-380 Tuning the Electronic and Molecular Structures of Catalytic Active Sites with Oxide Support Nanoligands Presenter: Israel E. Wachs	
8:50 AM		O-381 Synthesis of Thermally-Stable TiO_2 Nanocatalysts Presenter: John McCormick	
9:10 AM	O-373 La_2O_3- SiO_2 supported rhodium, a stable catalyst for hydrogen production Presenter: Eduardo Lombardo	O-382 Silica Nanoparticle Formation and Evolution in the Synthesis of All-Silica Zeolites Presenter: Jeffrey D. Rimer	
9:30 AM	Coffee Break		
10:00 AM	O-374 Characterization of Fuel Reforming Catalysts Presenter: Jeffrey G. Weissman	O-383 Initial pH Effect on the Physicochemical Properties of Co-MCM-41 and Formation of Stable Sub-nanometer Co Clusters by Anchoring Effect Presenter: Sangyun Lim	
10:20 AM	O-375 Marked Addition Effect of Re and Mo upon Liquid Phase Methanol Reforming with Water over Supported Group 8-10 Metal Catalysts Presenter: Shuichi Naito	O-384 Grafted Calixarenes as Scaffolds for Catalytic Structures Presenter: Justin Notestein	
10:40 AM	O-376 Selective Combinatorial Studies of Methanol Decomposition for Hydrogen Generation on Multi-component Catalysts Presenter: Stephen Schuyten	O-385 Nanostructured Molybdenum Sulphides: Structural Dependence of Catalytic Activity Presenter: Alejandra Camacho Bragado	
11:00 AM	O-377 H_2 production by steam reforming of ethanol over Al_2O_3 and ZrO_2 supported Pt catalysts Presenter: Martin Schmal		
11:20 AM	O-378 Potential of NiAl Layered double hydroxide-derived catalyst for methanol steam reforming Presenter: Caixia Qi		
11:40 AM	O-379 Structural and Catalytic Properties Investigations of Bimetallic Ni-Au for Pre-Reforming and On-Anode Steam Reforming of Hydrocarbons Presenter: Ya-Huei (Cathy) Chin		
12:00 PM	**Close of the 19th NAM**		