

- 10:05 Intermission.  
 10:20 147. Biogeochemistry of plutonium transport. **B. D. Honeyman**, R. M. Tinnacher, A. D. Diaz, C. Kantar, R. M. Sofield Harper, J. Gillow  
 10:45 148. Field application of activated carbon amendment for in situ stabilization of PCBs in sediment. **R. G. Luthy**, Y.-M. Cho, U. Ghosh, A. J. Kennedy, T. S. Bridges  
 11:10 149. Association of metalloids with sediments and soils of managed urban watersheds in the US Southwest: Implications for water quality. A. C. Williams, T. M. Boettcher, R. Harris-Burr, **C. Papelis**  
 11:30 150. Surface speciation of aspartate and glutamate on titanium dioxide. **C. M. Jonsson**, C. L. Jonsson, D. A. Sverjensky, H. J. Cleaves II, R. M. Hazen

## Section B

Hilton  
Salon I**Multiscale Reactions Including Fe-oxides, Oxyhydroxides, and Hydroxides Redox Reactions: Electron Transfer from Solved Fe(II) to Fe(III) Oxides**Y.-S. Jun and J. D. Kubicki, *Organizers*K. M. Rosso and J. G. Catalano, *Presiding*

- 8:30 151. Multiscale investigations of Fe(II) interaction with hematite (001) surfaces. S. V. Yanina, J.-F. Boily, C. A. Gorski, P. Larese-Casanova, J. G. Catalano, P. Fenter, M. M. Scherer, **K. M. Rosso**  
 9:10 152. Kinetics of atom exchange between aqueous Fe(II) and goethite. **R. M. Handler**, B. L. Beard, C. M. Johnson, K. M. Rosso, M. M. Scherer  
 9:30 153. Orientation-dependent hematite-Fe(II) reactions at acidic and neutral pH. **J. G. Catalano**, P. Fenter, C. Park, K. M. Rosso  
 9:50 154. Heterogeneous oxidation of Fe(II) on iron oxides: Controls on product formation. **P. Larese-Casanova**, A. Kappler, S. B. Haderlein  
 10:10 Intermission.  
 10:30 155. Fe oxides as semiconductors: Implications for contaminant fate in iron-reducing environments. **C. A. Gorski**, R. M. Handler, M. M. Scherer  
 10:50 156. Passivation and depassivation of iron/iron oxide nanoparticles. **J. T. Nurmi**, P. G. Tratnyek  
 11:10 157. Impact of *Shewanella oneidensis* MR-1 biofilm coatings on the reactivity of hematite. **Y. Wang**, A. Gélabert, Y. Choi, J. Ha, J. Gescher, J. R. Bargar, J. Rogers, P. Eng, C. D. Cordova, A. M. Spormann, G. E. Brown Jr.  
 11:30 158. Quantum chemical modeling of microbial iron reduction. **B. Puls**, J. Kubicki, M. Tien  
 11:50 159. Influences of humic substances and mineral nucleation sites on minerals formed during microbial iron(II) oxidation. **U. G. Dippon**, C. Hohmann, P. Larese-Casanova, K. Porsch, A. Kappler

## WEDNESDAY AFTERNOON

## Section A

Hilton  
Alpine Ballroom East**Metal and Metalloid Speciation and Adsorption in Honor of James O. Leckie Environmental Sciences, Engineering, and Dermal Exposure** Cosponsored by ENVRM. M. Benjamin, J. A. Davis, K. F. Hayes, D. B. Kent, C. Papelis, and G. D. Redden, *Organizers*A. P. Robertson and W. P. Ela, *Organizers, Presiding*

- 1:30 160. Assessing the current and future impacts of the disposal of chromated copper arsenate-treated wood in unlined landfills. **M. C. Kavanaugh**, N. Kresic, E. L. Hawley

- 2:00 161. Transport and distribution of arsenic, chromium, and copper in soil associated with CCA-treated wood. **L. Hu**, Y. Cai, C. Diez-Rivas, H. Solo-Gabriele, L. Fieber, A. F. R. Hasan  
 2:20 162. Combining adsorption with membrane filtration to remove NOM and reduce fouling. **M. M. Benjamin**, Z. Cai, J. Kim  
 2:45 163. Effect of foulant-foulant electrostatic interaction on limiting flux for RO and NF membranes. **C. Y. Tang**, Y. N. Kwon, J. O. Leckie  
 3:10 Intermission.  
 3:25 164. Smart multifunctional TiO<sub>2</sub> nanofiber/tube membrane powering water production. **D. D. Sun**, X. W. Zhang, A. J. Du, J. H. Pan, W. J. Fu, Y. J. Wang, J. O. Leckie  
 3:45 165. Soil adherence techniques and measures for dermal exposure. **A. C. Ferguson**  
 4:10 166. Pesticide exposure among farmworkers' children. **P. I. Beamer**  
 4:35 167. Collection of contact activity data via videotaping. **W. W. AuYeung**

## Section B

Hilton  
Salon I**Multiscale Reactions Including Fe-oxides, Oxyhydroxides, and Hydroxides Redox Reactions: Reactions by Foreign Chemical Sorption**Y.-S. Jun and J. D. Kubicki, *Organizers*E. S. Ilton and P. J. Vikesland, *Presiding*

- 1:30 168. Alterations to magnetite aggregation state during oxidation. R. F. Rebodas, **P. J. Vikesland**  
 1:50 169. Oxidation of Fe(II) by Cl<sub>2</sub> at iron mineral surfaces studied by compound specific isotope analysis. **A. Schmidt**, S. B. Haderlein  
 2:10 170. Electron transfer reactions at iron mineral surfaces in the presence of organic matter. **C. Laskov**, S. B. Haderlein  
 2:30 171. Fe(II)/HFO reactions with O<sub>2</sub>, nitrite, and uranyl at pH 6.8. Y.-L. Tai, **B. A. Dempsey**  
 2:50 Intermission.  
 3:10 172. Multiscale uranium(VI)-phosphate interactions in the presence of goethite. **A. Singh**, K.-U. Ulrich, J. G. Catalano, D. E. Giammar  
 3:30 173. Reduction of U(VI) by soil containing natural green rust. **D. E. Latta**, E. J. O'Loughlin, K. M. Kemmer, M. I. Boyanov, M. M. Scherer  
 3:50 174. Investigating speciation at the iron oxide/solution interface using cryogenic XPS. **E. S. Ilton**  
 4:10 175. Anoxic production of sulfate green rust II by the reduction of water and partial oxidation of Fe<sub>2</sub>(OH)<sub>2</sub>Cl · xH<sub>2</sub>O(s). **Y. Xiong**, M. B. Nemer, A. E. Ismail, L. H. Brush  
 4:30 176. A macroscopic investigation unifying proton, chromate, carbonate, and lead(II) adsorption on goethite. **M. Villalobos**, A. Perez-Gallegos, M. A. Cheney, J. C. Alcaraz-Cienfuegos

## THURSDAY MORNING

## Section A

Hilton  
Alpine Ballroom East**Geochemical Processes, Reactivity, and Applications of Manganese Oxides** Cosponsored by ENVR and INORM. Villalobos and J. R. Bargar, *Organizers*

- 8:10 Introductory Remarks.  
 8:15 177. Geochemistry of marine ferromanganese crusts. **J. R. Hein**, A. Koschinsky, J. R. Bargar, T. A. Conrad  
 8:45 178. Biogenic Mn oxide production in the Guaymas Basin deep-sea hydrothermal plume. **G. J. Dick**, B. Clement, S. Webb, J. Bargar, B. M. Tebo  
 9:15 179. Bioinorganic chemistry of bacterial manganese oxidation. **T. G. Spiro**, B. M. Tebo, A. V. Soldatova, O. F. Oyerinde

- 9:45 180. Enzymatic and abiotic Mn(II) oxidation: Cooperative or competitive pathways? **T. Behrends**, S. Shaw, L. G. Benning  
 10:05 Intermission.  
 10:45 181. Synthesis, characterization, and applications of layered manganese oxide materials. **S. L. Suib**  
 182. Withdrawn.  
 11:15 183. Effects of Hoffmeister anions on nanostructure of cryptomelane MnO<sub>2</sub> and its transformation to birnessite phase. **M. A. Cheney**, R. Jose, A. Banerjee, P. K. Bhowmik, S. Qian  
 11:35 184. Electrochemical properties of different Mn dioxides: Application as electrode materials in energy storage devices. **L. Athouël**, O. Crosnier, D. Bélanger, T. Brousse  
 12:05 185. Process and analytical chemistry of nanomanganese oxide electrodes. J. T. Nurmi, S. Feng, **P. G. Tratnyek**, S. Chinni, B. M. Tebo

## Section B

Hilton  
Salon I**Speciation and Kinetics in Natural Waters in Honor of Frank J. Millero**V. K. Sharma, *Organizer*

- 8:30 Introductory Remarks.  
 8:40 186. Adventures in marine carbonate chemistry with Frank Millero. **J. W. Morse**  
 9:10 187. In situ determination of Fe(II) oxidation kinetics in microbial mats and sulfur species temporal dynamics in diffuse flow hydrothermal vents. **G. W. Luther III**, K. M. Mullaugh, R. E. Trouwborst, G. K. Druschel, J. A. Rentz, D. Emerson, B. K. Pierson, C. Fisher  
 9:40 188. Equilibrium behavior of Pb(II) in natural waters. **R. H. Byrne**  
 10:10 189. Effect of desferrioxamine B on the release of arsenic from volcanic rocks. B. Casentini, **M. Pettine**, F. J. Millero  
 10:40 Intermission.  
 10:50 190. Hydrolysis of Al(III) in NaCl solutions: A model for Fe(III). **F. J. Millero**, R. J. Woosley  
 11:10 191. Hydrolysis of Al(III) in NaCl solutions: Model for M(II), M(III), and M(IV) ions. **R. J. Woosley**, F. J. Millero  
 11:30 192. Determinations of carbonate species in environmental water by new automatic instrument. **N. Tsurushima**, H. Narita, K. Okamura, T. Kimoto

## THURSDAY AFTERNOON

## Section A

Hilton  
Alpine Ballroom East**Geochemical Processes, Reactivity, and Applications of Manganese Oxides** Cosponsored by ENVR and INORM. Villalobos and J. R. Bargar, *Organizers*

- 1:10 Introductory Remarks.  
 1:15 193. On the role of Mn(IV) vacancy in photoreductive dissolution of birnessite. **K. D. Kwon**, K. Refson, G. Sposito  
 1:45 194. pH Effects on the structure of biogenic Mn-oxides. **M. Zhu**, M. Ginder-Vogel, S. J. Parikh, D. L. Sparks  
 2:05 195. Role of process conditions on the controlled conversion of nanoplates to nanoneedles in birnessite without structural change. **M. A. Cheney**, R. Jose, A. Banerjee, P. K. Bhowmik, S. Qian, S. W. Joo  
 2:25 196. The reactivity of siderophores at manganese oxide surfaces. **O. Duckworth**, J. R. Bargar, J. Peña, L. B. Saal, G. Sposito  
 2:55 197. Kinetic modeling of oxidation of antibacterial agents by manganese oxide. **C.-H. Huang**, H. Zhang, W.-R. Chen  
 3:15 Intermission.  
 3:25 198. Interaction of several elements with biogenic Mn oxides formed by a Mn(II)-oxidizing fungus, *Acremonium* sp. KR21-2. **T. Yukinori**, M. Naoyuki

- 3:55 199. Processes of Zn attenuation by microbial Mn oxides in mine-contaminated streams. **C. C. Fuller**, J. R. Bargar, Y. Arai, S. Webb  
 4:25 200. Transition metal uptake by biogenic manganese oxide nanoparticles. **J. Peña**, J. R. Bargar, G. Sposito  
 4:45 201. Manganese oxide contribution to metal binding in soil systems. **J. Antelo**, E. Tipping, S. Lofts

## Section B

Hilton  
Salon I**Speciation and Kinetics in Natural Waters in Honor of Frank J. Millero**V. K. Sharma, *Organizer*

- 1:40 202. Long trends in the water column carbon dioxide system at Estoc site. **M. Gonzalez-Davila**, J. M. Santana-Casiano  
 2:00 203. Spectroscopic measurements of the pH in NaCl brines. F. J. Millero, **B. R. DiTollo**, A. F. Suarez, G. Lando  
 2:20 204. Reevaluation of the global boron to chlorine ratio. **K. Lee**, Y.-M. Liu  
 2:40 205. The analysis of iron(II) in natural waters at the nanomolar level using a colorimetric flow injection analysis method: Methodology and applications. **M. J. Pullin**, A. Higdon, E. Osantowski  
 3:00 206. Fe(III) reduction in the presence of catechol in natural waters. **J. M. Santana-Casiano**, M. Gonzalez-Davila, F. J. Millero  
 3:20 207. Spectroscopic study of the interaction of iron(III)-EDTA complex with peroxy-nitrite. **V. K. Sharma**, R. Yngard, Z. Homonnay  
 3:40 Intermission.  
 3:55 208. Factors governing the lifetime of superoxide in seawater. **S. P. Hansard**, B. Voelker  
 4:15 209. Speciation of dissolved nickel in the Gulf of México. **G. F. Vázquez**, S. H. Bustos  
 4:35 210. Characterization of the photochemical degradation products of 2,4-dinitrotoluene and 2,6-dinitrotoluene in seawater. **J. R. Denzel**, D. J. Luning Prak, D. W. O'Sullivan  
 4:55 211. Solar degradation of endocrine-disrupting pollutants in natural waters. **D. E. Latch**, K. E. Daumit, C. N. Goodwin, J. L. Gray, G. R. Aiken

## HIST

**Division of The History of Chemistry**S. C. Rasmussen, *Program Chair*

## BUSINESS MEETING:

HIST Business Meeting, 1:00 pm: Mon

## MONDAY MORNING

## Section A

Marriott Downtown  
Solitude

## General Papers

S. C. Rasmussen, *Organizer, Presiding*

- 10:00 1. Protein wars: Controversies in the early history of protein structure and function. **J. S. Jeffers**

The official technical program for the 237th National Meeting is available online at [oasys2.confex.com/acs/237nm/techprogram/](https://oasys2.confex.com/acs/237nm/techprogram/).

- 10:30 2. Neil Bartlett: A lifetime of accomplishment. **K. Kostecka**  
 11:00 3. History of microencapsulation. **C. Thies**

#### MONDAY AFTERNOON

##### Section A

Marriott Downtown  
Solitude

##### Science History Study Tours: Global Perspectives

M. V. Orna, *Organizer, Presiding*

- 2:30 4. Chemistry is everywhere. **M. V. Orna**  
 2:50 5. "You can't miss it": A pictorial revisit of the John Wotiz tour of 1985. **L. Westmoreland**  
 3:15 6. In the footsteps of the great: Exploring cathedrals of science. **Y. Twomey**  
 3:40 7. Tycho Brahe, the island of Hven, and the Rundetaarn. **D. A. Katz**  
 4:00 Intermission.  
 4:10 8. The German nuclear reactor at Haigerloch. **D. A. Katz**  
 4:30 9. A virtual chemical history tour of ancient Israel. **Z. C. Koren**  
 4:55 10. Flights of fancy: Study tours off the beaten path. **C. J. Giunta**

#### TUESDAY MORNING

##### Section A

Marriott Downtown  
Salon C

##### Henry Eyring, His Science and His Legacy

J. M. Hayes, *Organizer, Presiding*

- 8:00 Introductory Remarks.  
 8:10 11. Henry Eyring: A model life. **S. M. Kuznicki**  
 8:45 12. Henry Eyring's role in U. S. theoretical chemistry. **J. Simons**  
 9:20 13. Henry Eyring and "Quantum Chemistry". **G. D. Patterson**  
 9:55 Intermission.  
 10:10 14. Henry Eyring: Mentor, models of research and emerging protein. **D. W. Urry**  
 10:45 15. Henry Eyring: A mentor and a colleague. **J. Michl**  
 11:20 16. Henry Eyring: Statistical mechanics and dynamics, significant structure theory. **D. J. Henderson**  
 11:55 17. Henry Eyring: A model for young chemists. **J. M. Hayes**

#### TUESDAY AFTERNOON

**ACS Award for Encouraging Women into Careers in the Chemical Sciences: Symposium in Honor of Mary F. Singleton**  
 Sponsored by WCC, Cosponsored by HIST<sup>†</sup>, PROF, and CEPA

## I&EC

### Division of Industrial & Engineering Chemistry

J. T. Ciszewski, *Program Chair*

#### SUNDAY MORNING

##### Section A

Salt Palace Convention Center  
355 D

##### General Papers

J. T. Ciszewski, *Organizer*

- 8:30 Introductory Remarks.  
 8:35 1. A new 2-D carbon material graphene for high performance of biosensing. **S. Alwarappan, C-Z. Li**  
 8:55 2. Analysis of process condition on synthesis of decaglycerol monooleate. **J. E. Tirano, H. R. Zea**

- 9:15 3. Characterization of a diesel oxidation catalyst-conversion performance and materials analysis of fresh and engine-aged catalysts. **H. J. Gysling**, T. Iacubucci, D. Fronheiser, J. R. Monnier, D. Repp, D. A. Blom, S. Ma, A. J. Kotrba, A. Yetkin, T. P. Gardner, J. Popovich, R. Shotwell

- 9:35 4. Compound selection for battlefield testing. **M. A. Hanning-Lee**, B. Rowland, G. Bottelberghe, K. Gandhi, F. V. Hanson, J. Walther, L. Wurster, S. Bowen, R. Jablonski, P. L. Abercrombie, A. B. Butrow, K. Conerly, W. Shircliffe, J. Kaufman, D. Jolley

- 9:55 Intermission.  
 10:15 5. Measurement and modeling of vapor interactions with materials. **M. A. Hanning-Lee**, B. Rowland, H. D. Thomas, M. Giessing, L. P. Adair, G. Siddoway, G. Bottelberghe, J. Kaufman, D. Jolley

- 10:35 6. Experimental characterization and population balance modeling of a polymorph transformation. **J. Corniel**, M. Mazzotti

- 10:55 7. Nanoparticle milling and polymer encapsulation in supercritical carbon dioxide mixtures. **S. M. Paap**, M. S. Wolfe, J. W. Tester

- 11:15 8. New insights into the structure and hydration chemistry of white Portland and Oilwell cements by solid state NMR. **A. Rawal**, B. Smith, B. F. Chmelka

##### Section B

Salt Palace Convention Center  
355 B

##### Nanotechnology and the Environment: Emphasis on Green Nanotechnology

Cosponsored by INOR and NANO

B. Karn, *Organizer*

- 8:30 Introductory Remarks.  
 8:35 9. Progress in green nanotechnology and this symposium. **B. Karn**  
 9:05 10. U.S. EPA: Nanotechnology green applications and other environmental benefits. **N. F. Savage**  
 9:35 11. ONAMI and the safer nanomaterials and nanomanufacturing initiative. **S. Rung**  
 10:05 Intermission.  
 10:25 12. Myth-busting: Nanoparticle behavior in the environment. **M. R. Wiesner**, G. V. Lowry  
 10:55 13. Nano-myth-busting: Common misconceptions regarding nanomaterial interactions with organisms and their toxicity. **G. V. Lowry**, M. R. Wiesner, E. A. Casman  
 11:25 14. Rethinking environmental risk assessment for nanomaterials. **E. A. Casman**, G. V. Lowry, M. R. Wiesner

**Chemistry for Catalyst Synthesis**  
 Sponsored by CATL (probationary),  
 Cosponsored by COLL and I&EC

**Polymers and Carbon Nanotubes Tutorial on Carbon Nanotubes**  
 Sponsored by POLY, Cosponsored by COLL, I&EC, PHYS, PMSE, and NANO

#### SUNDAY AFTERNOON

##### Section A

Salt Palace Convention Center  
355 D

##### General Papers

J. T. Ciszewski, *Organizer*

- 1:30 15. Novel vapor-phase carbonylation of dimethoxymethane over acid zeolites. **F. E. Celik**, T.-J. Kim, A. T. Bell  
 1:50 16. One-component, switchable, neutral to ionic liquid solvents derived from siloxylated amines. **V. Blasucci**, C. Diek, H. A. Huttenhower, E. A. John, V. Llopis-Mestre, P. Pollet, C. A. Eckert, C. L. Liotta

† Cooperative Cosponsorship

- 2:10 17. Optimizing process conditions for scale-up of a pharmaceutical intermediate. **M. T. Drexler**  
 2:30 Intermission.

- 2:50 18. Solvent fractionation of switchgrass. **C. J. O'Lenick**, J. J. Bozell, T. G. Fials, S. K. Black

- 3:10 19. TAALLS: Tunable aryl-alkyl ionic liquids. **T. Strassner**, S. Ahrens  
 3:30 20. The catalytic evaluation of ZnO in the transesterification reaction of palm oil to biodiesel by heterogeneous catalysis. **D. Barrera Jr.**, G. Camargo Vargas, M. A. Molano, J. C. Moreno Pirajan, L. Giraldo

- 3:50 21. Using design of experiments to optimize polycrystalline diamond compact (PDC) manufacturing. **W. D. Kappel**, J. Wiggins  
 4:10 Concluding Remarks.

##### Section B

Salt Palace Convention Center  
355 B

##### Nanotechnology and the Environment: Emphasis on Green Nanotechnology Sustainable Synthesis of Nanomaterials

Cosponsored by INOR and NANO

C. J. Murphy, *Organizer*

- 1:00 Introductory Remarks.  
 1:05 22. Green synthesis and applications of functional metal oxide nanostructures. **S. S. Wong**  
 1:35 23. Large-scale synthesis of uniform-sized nanoparticles via heat-up process. **T. Hyeon**, S. G. Kwon, K. An, T. Yu  
 2:05 24. Green strategies for the synthesis of metal nanocrystals and bulk solids. **R. E. Schaak**  
 2:35 Intermission.  
 2:55 25. Synthesis and processing of metal, alloy and core-shell nanoparticles. **C.-J. Zhong**  
 3:25 26. Shape-controlled synthesis of palladium nanocrystals in aqueous solutions. **Y. Xia**  
 3:55 27. New synthetic approaches to functional gold nanostructures. **E. Zubarev**

**Chemistry for Catalyst Synthesis**  
 Sponsored by CATL (probationary),  
 Cosponsored by COLL and I&EC

**Nanotechnology in Catalysis VI**  
 Sponsored by CATL (probationary), Cosponsored by COLL, FUEL, I&EC, PETR, and NANO

**Polymers and Carbon Nanotubes Dispersion and Functionalization**  
 Sponsored by POLY, Cosponsored by COLL, I&EC, PHYS, PMSE, and NANO

#### MONDAY MORNING

##### Section A

Salt Palace Convention Center  
355 D

**Nanoscale Materials in Chemistry: Environmental Applications: In Honor of Professor Klambunde, I&EC Division Fellow**  
 Cosponsored by NANO

S. Lee and L. E. Erickson, *Organizers*

- 8:30 Introductory Remarks.  
 8:35 28. Size-dependent properties and surface chemistry of oxide nanomaterials in environmental processes. **V. H. Grassian**  
 9:05 29. Mesoporous titanium dioxide: To order or not to order? **R. T. Koodali**  
 9:30 30. Metal oxides with 111 surfaces and their catalytic properties. **R. M. Richards**, J. Hu, K. Zhu, L. Chen  
 9:55 Intermission.  
 10:05 31. Spectroscopic observation of molecular diffusion through high area sorbent powders: A new diffusion measurement technique involving IR spectroscopy. **J. T. Yates Jr.**, S. Kim, X. Wang, C. Buda, M. Neurock, O. B. Koper  
 10:35 32. Environmental applications of nanocrystalline metal oxides. **O. B. Koper**, A. Iseli, D. Jones, S. Winecki

- 11:00 33. Visible light active photocatalysts and biocides based on transition metal-titanium dioxide and silicon dioxide aerogels. **K. J. Klambunde**, J. Haggstrom, D. Harnal, G. L. Marchin, K. Kalebailla, S. Baker, C. M. Aikens

##### Section B

Salt Palace Convention Center  
355 B

##### Selective Oxidation of Alkanes & Alkenes: In Honor of Madan M. Bhasin, I&EC Division Fellow

J. J. Spivey and S. F. Mitchell, *Organizers*

- 8:55 Introductory Remarks.  
 9:00 34. Oxidation catalysis from metal oxides to gold. **H. Kung**  
 9:30 35. Nanostructured carbide and nitride catalysts. **L. T. Thompson**  
 10:00 36. Novel catalytic approaches for the oxidative dehydrogenation of ethane. **J. A. Lercher**  
 10:30 Intermission.  
 10:45 37. Oxidation reactions in the synthesis of intermediate and fine chemicals using environmentally benign oxidants and the right reactor system. **W. F. Hoelderich**  
 11:15 38. Understanding the origins of the catalytic behavior in supported gold catalysts. **A. K. Datye**  
 11:45 39. Catalysis by design: A status report. **A. T. Bell**

**Chemistry for Catalyst Synthesis**  
 Sponsored by CATL (probationary),  
 Cosponsored by COLL and I&EC

**Green Chemistry**  
 Sponsored by CHAS, I&EC, CEI, INOR, and ORGN

**Nanotechnology in Catalysis VI**  
 Sponsored by CATL (probationary), Cosponsored by COLL, FUEL, I&EC, PETR, and NANO

**Polymers and Carbon Nanotubes Processing of Composites**  
 Sponsored by POLY, Cosponsored by COLL, I&EC, PHYS, PMSE, and NANO

#### MONDAY AFTERNOON

##### Section A

Salt Palace Convention Center  
355 D

**E. V. Murphree Award in Industrial and Engineering Chemistry: Symposium in Honor of Milorad P. Dudukovic Kinetics and Catalysis**

P. L. Mills, *Organizer*

- 1:00 Introductory Remarks.  
 1:05 40. Fundamental studies of bimetallics for oxygenate reforming. **O. Skoplyak**, J. G. Chen, **M. A. Barteau**  
 1:25 41. Hydrogenolysis of polyols and carboxylic acids: Challenges in catalysis and reaction engineering. **R. V. Chaudhari**, D. Roy, B. Subramanian  
 1:45 42. Insight into catalysis by novel solid superacids. **G. D. Yadav**  
 2:05 Intermission.  
 2:20 43. Sintering dynamics of metal oxide nanoparticles. **A. R. Rammoohan**, Y. Jiang  
 2:40 44. Pore accessibility in disordered nanoporous materials: Experiment, theory and simulation. **S. K. Bhatia**  
 3:00 45. Bridging the pressure gap: Catalytic oxidation at steady-state and nonsteady-state conditions. **J. T. Gleaves**, X. Zheng, G. S. Yablonsky, P. L. Mills

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