

NACS Newsletter

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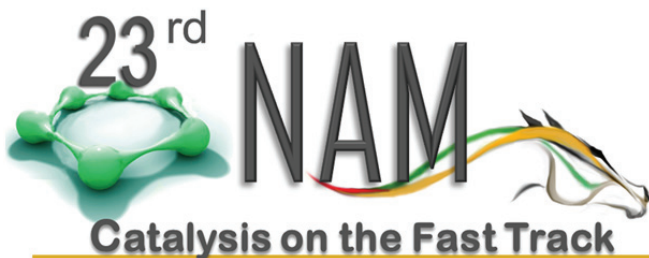
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**23rd North American Catalysis
Society Meeting
2013**

June 2-7, 2013
Louisville, Kentucky

www.NAM23.org

Approval of Modifications of By-Laws and Director-at-Large Elections North American Catalysis Society

National Officers: **President** - Enrique Iglesia, University of California-Berkeley; **VICE-PRESIDENT** - Bruce R. Cook, BP Products NA, Inc.; **Secretary** - Hong-Xin Li, Zeolyst International; **Treasurer** - C. Y. Chen, Chevron Energy Technology Co.; **Lead Trustee** - John W. Byrne, BASF Catalysts LLC; **Communications Director** - Edrick Morales.

Club Representatives: **Canada** - Ajay K. Dalai, University of Saskatchewan; **Chicago** - Christopher L. Marshall, Argonne National Laboratory; **Mexico** - Jose Antonio de los Reyes, Universidad Autonoma Metropolitana, Campus Iztapalapa; **Michigan** - Galen B Fisher, University of Michigan; **New England** - William C. (Curt) Conner, University of Massachusetts; **New York** - Israel E. Wachs, Lehigh University; **Pacific Coast** - Alex Katz, University of California-Berkeley; **Philadelphia** - Anne M. Gaffney, IN-VISTA; **Pittsburgh-Cleveland** - Gotz Vesper, University of Pittsburgh; **Organic Reactions Catalysis Society** - Christopher W. Jones, Georgia Institute of Technology; **Tri-State** (Kentucky/Ohio/West Virginia) - Uschi Graham, Topasol LLC; **Southeast** - Steven H. Overbury, Oak Ridge National Laboratory; **Southwest** - Kerry Dooley, Louisiana State University; **Western States** - Will Medlin, University of Colorado at Boulder.

Directors-at-Large: Bruce Gates, University of California at Davis; Jingguang G. Chen, University of Delaware; Robert Davis, University of Virginia; Stuart Soled, Exxon Mobil Research and Engineering Co.

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In the next few weeks, all members of the North American Catalysis Society (NACS) will receive a ballot via electronic means. This ballot will request your vote for six of the eleven candidates for the position of Director-at-Large and also your vote regarding modifications of the by-laws of the Society. I encourage you to exercise your voting rights within the specified voting period.

Directors-at-large (DAL) serve four-year terms and are elected by the entire membership. Their new term will start during the NAM23 in Louisville. Elected DAL represent the entire membership by attending annual NACS Board meetings. The Board consists of the NACS officers, one representative from each local or affiliated society, and the DAL. The ballot will concurrently ask for your approval of modifications of the by-laws, including one to increase the number of DAL from four to six; if the modified by-laws are not approved, the four DAL candidates with the largest vote count will serve.

The modifications of the by-laws that are submitted for your approval consist of a series of motions already approved by the Board in the intervening years since the 2003 version. The electronic ballot will include a detailed description of such changes as well as a rationale for each one of them. These materials were included in the newsletter and posted into a single document that shows an overview of the proposed changes followed by the full text of the by-laws at http://wp2.nacatsoc.org/wp-content/uploads/2013/02/NACS_By-laws_2013-02.pdf.



NACS consists of 14 affiliate local clubs and societies in Canada, Mexico, and the United States and

well over 1,500 members. It was founded in 1956 and its mission includes the stewardship and support of NAM and logistical support and seed financial funding to the local organizing committees. NACS also provides joint funding for Kokes awards, presented to students to attend NAM, and financial support for students to attend the regular meetings of the local clubs and societies.

On behalf of the NACS leadership and its governing board, I encourage you to vote and I look forward to seeing you at NAM23 in Louisville (June 2-7, 2013; www.nam23.org/).

With regards,

Enrique Iglesia
President, North American Catalysis Society

Jens Norskov named the recipient of the 2013 Michel Boudart Award for the Advancement of Catalysis



We are pleased to announce that Prof. Jens K. Norskov of the Department of Chemical Engineering and the SLAC National Accelerator Laboratory at Stanford University is the recipient of the 2013 Michel Boudart Award for the Advancement of catalysis. The Award is sponsored by the Haldor Topsøe Company and is administered jointly by the NACS and the EFCATS.

More information on this award and the award process can be found in the Awards folder of the NACS home page www.nacatsoc.org.

The Michel Boudart Award for the Advancement of catalysis is given in recognition of individual contributions to the elucidation of the mechanism and active sites involved in catalytic phenomena and to the development of new methods or concepts that advance the understanding and/or practice of heterogeneous catalysis. The Award selection process will emphasize accomplishments and contributions published within the five preceding years.

The award recognizes Professor Jens K. Norskov for his pioneering work on understanding trends in catalyst activity and developing catalyst design principles based on reactivity descriptors. He and his coworkers have contributed extensively to the development of computational methods and models of surface reactivity. Professor Norskov has introduced what is today a standard

model of transition metal reactivity and has used it to explain trends in adsorption energies and in the activation energies of elementary processes on transition metal catalysts in terms of variations in the d-band center and other parameters characterizing the properties of surface electrons. Norskov has quantified Brønsted-Evans-Polanyi (BEP) relations and showed how they lead to predictive models that relate catalytic reactivity to adsorption energies of key relevant species. The methods developed for use in heterogeneous catalysis have been successfully transferred into the area of electrocatalysis. Most recently, his research group has introduced the first database of surface chemical properties and developed publicly available software to access and mine thermodynamic and catalytic data on active surfaces, thus opening novel opportunities for discovering trends and for designing new catalysts and catalytic processes.

Professor Norskov will present plenary lectures at the 2013 meetings of the North American Catalysis Society in Louisville and at the 2013 Europacat Meeting in Lyon.

Avelino Corma
President, European Federation of Catalysis Societies

Enrique Iglesia
President, North American Catalysis Society

Professor Johannes Lercher receives the 2013 Tanabe Prize in Acid-Base Catalysis

The 2013 Tanabe Prize for Acid-Base Catalysis will be awarded to Johannes A. Lercher, who receives the prize in recognition of his substantial contributions to the field of acid-base catalysis.

The award ceremony will take place at the 7th International Symposium on Acid-Base Catalysis in Tokyo, Japan May 12–15, 2013.

Johannes A. Lercher studied Chemistry and received his PhD at TU Wien. After a visiting lectureship at Yale, he joined TU Wien as lecturer and later Assoc. Professor. 1993 he was appointed Professor at the University Twente, Department of Chemical Technology, and moved in 1998 to his current position as Professor of Chemical Technology at TU Munchen. Since 2011 he is also Director of the Institute for Integrated Catalysis at the Pacific Northwest National Laboratory.

He is external member of the Austrian Academy of Sciences and Member of the Academia Europaea, and holds several Honorary Professorships. He serves currently as Editor-in-Chief of the Journal of Catalysis.

Research is focussed on fundamental aspects of oxide and molecular sieve based sorption and catalysis, new routes to activate and functionalize hydrocarbons, deconstruction and defunctionalization of biomass, the mechanistic understanding of hydrotreating catalysts, and the in situ characterization of catalytic processes.

Source: www.shokubai.org/abc/tanabe.html

Giuseppe Bellussi is the recipient of the 2013 Eugene J. Houdry Award of the North American Catalysis Society



Giuseppe Bellussi, Senior Vice President, Research and Development, for ENI Refining & Marketing is the recipient of the 2013 Eugene J. Houdry Award of the North American Catalysis Society. The Eugene J. Houdry Award in Applied Catalysis is sponsored by Clariant. It is administered by The Catalysis Society and awarded biennially in odd-numbered years.

This award recognizes and encourages individual contributions in the field of catalysis with emphasis on the development of new and improved catalysts and processes representing outstanding advances in their useful application. The award consists of a plaque and a prize of \$5,000, which will be presented at the 23rd North American Meeting of the Catalysis Society to be held in Louisville, Kentucky on June 2–7, 2013. The Award Plenary lecture will also be presented during this meeting.

The 2013 Eugene J. Houdry Award recognizes Giuseppe Bellussi for his important contributions to the development of several key processes in petrochemicals and refining through research in new catalytic materials, in fundamental understanding of underlying catalytic phenomena, and in enabling engineering concepts for catalytic processes.

Dr. Bellussi joined the Eni Company in 1981. Since then, he has been engaged in research and development of new technologies with broad impact in refining, petrochemicals, and exploration-production. His specific contributions have focused on heterogeneous catalysis,

with specific emphasis on the science and technology of zeolite catalysts. These contributions have ranged from selective oxidation reactions to acid catalysis with broad applications to natural gas conversion, the upgrading of heavy residues, and the synthesis of new structured materials. Many of these achievements have contributed to industrial applications, such as in oxidations with hydrogen peroxide on titanium-silicalite (TS-1) catalysts for the production of di-phenols, cyclohexanone oxime and propylene oxide and the alkylation of benzene by light olefins to ethylbenzene or cumene on Beta-zeolites. Most recently, Dr. Bellussi has been involved in the development of a gas-to-liquids technology based on Fischer-Tropsch synthesis in slurry phase reactor and of the EST (Eni Slurry Technology) for upgrading of heavy oils to clean high-quality distillates without concurrent formation of coke and other by-products.

He has been recognized for these contributions with the 1994 Don Breck Award of the International Zeolite Association, which he shared with Eni colleagues for the development of TS-1-based catalysts, the 2003 Johnson Matthey Award for innovation in catalysis, the 2007 International Zeolite Association Award for seminal contributions to the science and applications of zeolites, and the 2008 “Prof. P. Pino” Gold Medal from the Industrial Chemistry Division of Italian Chemical Society. Since 2010, Dr. Bellussi has been the President of the International Zeolite Association.

C. W. Jones is the recipient of the 2013 Paul H. Emmett Award

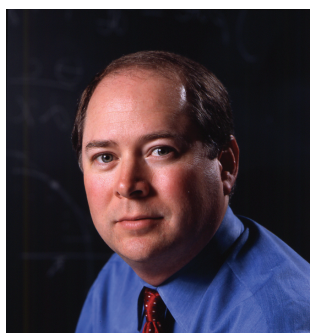


I am pleased to announce that Professor Christopher W. Jones of the School of Chemical and Biomolecular Engineering at the Georgia Institute of Technology is the recipient of the 2013 Paul H. Emmett Award in Fundamental Catalysis, sponsored by the Grace Catalyst Technologies operating segment of W.R. Grace & Co. and administered by The North American Catalysis Society. The Award consists of a plaque and an honorarium of \$5,000. The plaque will be presented during the closing banquet ceremonies at the 2013 North American Meeting of the Catalysis Society. Professor Jones will also present a

plenary lecture during this conference.

The Paul H. Emmett Award in Fundamental Catalysis is given in recognition of substantial individual contributions in the field of catalysis with emphasis on discovery and understanding of catalytic phenomena, proposal of catalytic reaction mechanisms and identification of and description of catalytic sites and species.

The award recognizes the contributions of Professor Christopher W. Jones to fundamental advances in catalysis at the interface between heterogeneous and homogeneous catalysis. Specifically, his studies of silica and polymer-supported Pd(II) pincer complexes unraveled their behavior in Heck and Suzuki coupling reactions, where the complexes were demonstrated to form soluble ligand-free species that catalyzed traditional Pd(0)-Pd(II) pathways. His group has also developed a family of supported metal-salen complex catalysts for enantioselective reactions, including cooperative epoxide ring-opening reactions and olefin cyclopropanation. This work has focused on the stability and deactivation of these catalysts and clarified degradation pathways, allowing the implementation of stabilization strategies to enhance catalyst turnovers.



Elections for Director-at-Large

This year, for the second time, the NACS will be using on-line balloting as the only way to vote for Directors-at-Large. We have contracted with a firm that is experienced in on-line voting to ensure the accuracy and confidentiality of the process. The elections are scheduled for the second half of March. You will be receiving an email message on March 17th containing your username, unique password and a link to a restricted voting webpage. The subject headline is “NACS ELECTIONS FOR DIRECTORS-at-LARGE”. Please don’t delete this email until you cast your vote. If you have a problem receiving this email, then you need to contact Edrick Morales at edrickmorales@live.com.

The logging web page will have instructions on how to cast your electronic ballot with links to technical assistance in case you have difficulty with the logging and PDF documents with the proposed amendments and revised version of the by-laws.

You can cast your vote starting on March 18th. The voting

webpage will be held open for two weeks to those members of NACS (including students) who reside within North America. Background information for each candidate will be available on the ballot site with a hyperlink associated to each candidate’s name. On the ballot website, you will be selecting only six (6) or less members from the 11 candidates for the office of Director-at-Large and one vote to approve or not approve the amendments to the by-laws: a total of seven (7) votes. The top six candidates will be elected to office if the amendments to the by-laws are approved; otherwise, the top four candidates will be elected.

Voters will need to log back in and complete the ballot from scratch if they log out or close the browser window without submitting their ballot. Your password will be deactivated after you record your vote.

**John N. Armor**

Semi-retired consultant

Founder of a personal, global consulting business, Global-Catalysis.com. My dedicated interests in catalysis continue through occasional technical publications (such as Catalysis Today 178 (2011) 8), invited lectures, and attendance at major national and international

catalysis focused meetings. I bring over 40 years of experience in catalysis beginning with my undergraduate research at Penn State University and my PhD work at Stanford University. After receiving my doctorate degree, I spent 4 years as an assistant professor at Boston University, then joined Allied Chemical Corporation's central research center for 11 years, and moved to Air Products & Chemicals to lead a catalysis research center before retirement.

My past role with the NACS (8 years as President and 7 years as Treasurer) focused on bringing visibility to the catalysis community at large, establishing our popular website, returning excess proceeds from our NAM meetings to the membership, strengthening the financial position of the NACS as well as the individual clubs, building up the corpus to the Keith Hall Educational Fund, establishing new ways to provide educational assistance to the membership, and enhancing the number and identity of our professional Awards program.

Having stepped aside from a leadership role in the NACS for the last 4 years, I would like to rejoin the Board of Directors and again work for the membership at large. I would like to continue to serve as a resource to the Society by participation in Board activities while mentoring new generations of our leaders, because I believe there is more that I can still contribute.

**Jingguang Chen**

Thayer Lindsley Professor of Chemical Engineering
Columbia University

Jingguang Chen started his career at the Exxon Corporate Research Laboratories before joining the faculty at the University of Delaware, serving as the Claire LeClaire

Professor of chemical engineering and Director of the Center for Catalytic Science and Technology. In the past two decades he has been actively serving the catalysis community, including the Catalysis Secretariat of ACS, Chair of the Gordon Research Conference on Catalysis, Kokes Chair for the Philadelphia NAM, and co-founder and team leader of the Synchrotron Catalysis Consortium. He has served as the Director-at-Large of NACS since 2005. His recent contributions as DAL included the application and distribution of travel grants to graduate students and young faculty to the ICC meeting.

If re-elected he would like to help establish a more formal process in NACS in applying and granting travel assistance to catalysis conferences.

**Abhaya Datye**

Distinguished Regents Professor
Department of Chemical & Nuclear Engineering
University of New Mexico

Abhaya Datye has been on the faculty at the University of New Mexico since 1984 and presently serves as the undergraduate advisor for chemical engineering

and formerly served as Associate Chair. He serves as Director of the Center for Microengineered Materials, a strategic research center at UNM that reports to the Vice President for Research.

Abhaya received his Ph.D. in chemical engineering from the University of Michigan in 1984. He has authored over 240 publications, 3 patents and has presented 120 invited lectures around the world. He was the Chair of the Gordon Research Conference on Catalysis in 2010. He served as the program co-chair for the North American Catalysis Society meeting at Snowbird, UT. He has been actively involved in the Western States Catalysis Club, where he has served as president and as the Club representative to the NAM board. As a Director at large for the Society, he plans to enhance the visibility of catalysis and to get new students, especially graduate and undergraduate students into the field.

His research group has pioneered the development of electron microscopy tools for the study of catalysts. Using model catalysts, his group has shown metal/support interfaces can be studied at near atomic resolution. His current work involves the synthesis of biorenewable chemicals, fundamental studies of catalyst sintering, alcohol reforming into H₂ and synthesis of novel nanostructured heterogeneous catalysts, especially the stabilization of isolated single atoms on supports. He leads the NSF Partnership for International Research and Education (PIRE) on Conversion of Biomass derived reactants into Fuels, Chemicals and Materials (a collaboration between faculty and researchers in the US, Denmark, Germany, Netherlands and Finland).

**Robert J. Davis**

Current Professional Role
Earnest Jackson Oglesby Professor, Department of Chemical Engineering
University of Virginia, 102 Engineers Way
Charlottesville, VA 22904

Catalysis Club Membership
Southeastern Catalysis Society

Davis has served as Director-at-Large of the NACS, President of the Southeastern Catalysis Society, Chair of the 2006 Gordon Research Conference on Catalysis, Chair of Catalysis Programming of the AIChE, Chair of a US government panel charged with worldwide assessment of Catalysis by Nanostructured Materials, Director of the Catalysis and Reaction Engineering Division of the AIChE, Co-Chair of an International Catalysis Workshop in China, member of the Advisory Board of the International Conferences on Solid Acid and Base Catalysis, member of the Supervisory Board of the Dutch National Research School Combination on Catalysis, and member of the editorial boards of Journal of Catalysis, ACS Catalysis, ChemCatChem, Applied Catalysis A and B and Journal of Molecular Catalysis A.

I have been involved in catalysis research for more than 25 years and have actively participated in the community through a variety of service and leadership roles. If elected, I would be pleased to serve as Director-at-Large. The growing needs for inexpensive energy, green chemical processes and sustainable manufacturing practices ensure that catalysis will continue to play a prominent role in scientific and engineering research in the coming decades. Indeed, the resurgence of catalysis research and development in North America over the last 4 years has been quite exciting and I will work to keep the North American Catalysis Society and its sponsored meetings at the forefront of the field.

**Maria Flytzani-Stephanopoulos**

Robert and Marcy Haber
Endowed Professor in Energy Sustainability
Tufts University

Dr. Flytzani-Stephanopoulos research focuses on atomic-scale metal catalyst designs which may lead to practical catalyst development using only trace

amounts of expensive precious metals. Presently, the cost of catalysts severely hinders the deployment of several sustainable energy production systems. Prof. Stephanopoulos has used creative ways in heterogeneous catalysis to demonstrate that atomically dispersed supported metal species catalyze the water-gas shift (WGS) and methanol steam reforming (SRM) reactions, both important in fuel processing and hydrogen production. Her research group was first to report on the remarkable WGS activity of gold on ceria, and to show that adsorbed Au-Ox and Pt-Ox species are the active sites for this reaction, while the corresponding metal nanoparticles are spectator species on ceria. She has recently generalized these findings on any support, even on inert silica, a highly unanticipated finding. In another first, she used single crystals of ceria and zinc oxide at the nanoscale to identify which surfaces best bind atomic Au-Ox species for the WGS reactions. In the area of desulfurization of hot fuel gases, work in her lab has identified lanthanide oxysulfides as regenerable adsorbents of H₂S to fully purify fuel gases at temperatures exceeding 650 °C for high-temperature fuel cell applications. The lanthanide oxysulfides are also unique sulfur-tolerant catalysts for the high-temperature WGS reaction. In other work, her group is investigating “single atom alloys” comprising a base metal (Cu) with isolated atoms of a precious metal (Pd) as new very active and selective low-temperature hydrogenation catalysts for green chemicals production. Prof. Flytzani-Stephanopoulos serves the catalysis community as Editor of Applied Catalysis B: Environmental (since 2002), and is the 2nd Vice Chair of the Catalysis and Reaction Engineering Division of the AIChE.

The catalysis field is presently enjoying a renaissance, as it is looked upon as a primary enabling force for the attainment of a sustainable global economy. Young people are attracted to the field and long to share in the excitement of paving the way to a sustainable future. Harnessing this potential will be a main focus of my activities as a Director-at-Large of the North

American Catalysis Society. Among several potential mechanisms to bring in “new blood” to NACS as it strives to advance catalysis and provide a rich forum for the education of young scientists in the discipline, I can list (i) the formation of student chapters of NACS within the areas of the present catalysis clubs, with similar organization to the AIChE student chapters; (ii) including student-run sessions at the NACS meetings with student speakers selected through national competition, and supported by the Society. This would have the desired effect of strengthening and enlarging the catalysis community with future leaders; (iii) the creation of NACS Junior Fellows as another initiative to nurture these leaders and keep them engaged and committed to the society’s goals.

**Bruce Gates**

Distinguished Professor
Department of Chemical Engineering and Materials Science
University of California, Davis

Bruce Gates has served the catalysis community as editor of *Advances in Catalysis* (since 1995); co-chair of the DOE workshop leading to the 2008 report *Basic Research Needs:*

Catalysis for Energy; co-chair of the 2009 San Francisco North American Catalysis Society meeting; chair of the Technical Advisory Council of the National Advanced Biofuels Consortium (since 2010); and a member of the Scientific Advisory Board of the Stanford Synchrotron Radiation Lightsource. He is on the editorial/advisory boards of *Catalysis Science and Technology*, *Catalysis Letters*, *Topics in Catalysis*, and *Journal of Catalysis*. He contributed the textbooks *Chemistry of Catalytic Processes* and *Catalytic Chemistry*. He teaches Chemical Engineering and Materials Science at UC Davis, and his former students are well represented in catalysis R&D positions and academic positions in North America.

The needs for new energy technology and environmental protection make catalysis research and catalytic technology more important than ever. I would appreciate the opportunity to help advance the field by continuing as a member of the NACS Board. My goals would be to help strengthen the community and broaden NACS membership by better integrating the catalysis subfields and encouraging wider participation by young people and industry colleagues. I believe NACS can amplify our message about the importance of catalysis by reaching beyond our immediate community.

**Umit S. Ozkan**

Distinguished Professor of
Chemical Engineering
The Ohio State University

Umit Ozkan received her Ph.D. from Iowa State University in 1984 and joined the OSU faculty in 1985.

She has edited five books, written over 200 refereed publica-

tions and book chapters, and has five patents, all in catalysis area. She has held many leadership positions in professional organizations. She served as the Co-chair of the Continuing Symposia in Catalysis for the ACS Colloids and Surface Chemistry Division (1994-2000), member of the Board of Directors of the Catalysis and Reaction Engineering Division of AIChE (1996-1999, 2008-2011), President of the ACS, Petroleum Chemistry Division (2002-2003). She was the Secretary for NACS (2000-2009). She is on the Editorial Boards of *Catalysis Today*, *Journal of Molecular Catalysis*, *Catalysis Letters*, *Topics in Catalysis*, *The Royal Society of Chemistry*, *Catalysis Book Series*, *Applied Catalysis B*, and *Catalysis Reviews*. She is one of the Meeting Chairs for the 23rd NAM to be held in Louisville in June 2013. She is a fellow of the AAAS, AIChE, and ACS.

Professor Ozkan is the recipient of many national and international recognitions among which are the ACS Energy and Fuels Distinguished Researcher Award (2012), John van Geuns Lectureship Award at the Van't Hoff Institute at the University of Amsterdam (2010), Iowa State University, Professional Achievement Citation in Engineering (2010), AIChE Mentorship Excellence Award (2009), Fulbright Senior Scholar Award (2007), the Society of Women Engineers Achievement Award (2002), Pittsburgh-Cleveland Catalysis Society Outstanding Research Award (1998), French C.N.R.S. Fellowship (1994-95), and Keck Foundation Excellence in Engineering Education Award (1994). If elected, Dr. Ozkan will focus her efforts on increasing the involvement of young researchers and graduate students in North American Catalysis Society and bringing other related communities such as those of biocatalysis and electrocatalysis into the NACS fold.

**Michael A. Reynolds**

Senior Research Chemist
Projects and Technology
Shell

Michael Reynolds conducts research in catalysis development for oil conversion and hydro-processing. He has worked on heavy oil conversion, catalyst synthesis, and pilot plant design. Mike is a graduate

of Michigan State University (B.S.) and Iowa State University (Ph.D.). Prior to joining Shell he was a post-doctoral associate at the University of Illinois – Champaign. Mike is an active member of the catalysis community. He has held regional office in the Southwest Catalysis Society (SWCS) as a Director (2003-2009), Chair (2011), and Past-Chair (2012). His other activities have included: Poster session co-Chair for the 20th NAM in Houston, TX; Organizer and Chair for the 2011 SWCS meeting honoring Jack Lunsford; Editorial Review Board for ACS Energy & Fuels; Past Area II Representative for the ACS Petroleum division; Current Area II Representative for ACS Energy and Fuels division (executive member). In addition, Mike has co-authored 8 publications and over 20 patents in catalysis or related areas of research. He has also organized, chaired and presented in several symposia at SWCS and ACS meetings over the past several years.

Why I would like to campaign for Director-at-Large.

Over the past several decades the NACS has done a great deal in its campaign to further the global development and outreach in catalysis for the industrial and academic communities. I would like to utilize the Director-at-Large position to develop programs aimed at mentoring students and furthering their development as future scientists and leaders. Students rarely are exposed to the industrial side of chemistry and engineering and they would benefit from programs that bridge that gap. One example would be to work with the Board of Directors to increase educational opportunities that provide undergraduate and graduate students with a stipend or award to work in the chemical or petrochemical industries. This could be established through summer internships and fellowships. A similar project could be created for high school students interested in the science and engineering fields. These are some of the goals that I would like to accomplish as an NACS Director-at-Large.

**Fabio H. Ribeiro**

Professor of Chemical Engineering
Purdue University.

Fabio Ribeiro is a member of the Michigan Catalysis Society and the Catalysis Club of Chicago. He served as President of the New England Catalysis Society (NECS) 1997 – 1999 and was the host of the semiannual

meetings of the NECS in Worcester, Massachusetts, from 1996 to 2002. He served as Chair for AIChE's Catalysis and Reaction Engineering Division (2010) He was co-Chair of the Kokes Award Committee for the 22nd North American Meeting of the Catalysis Society. He organized 15 symposia for NACS, ACS and AIChE. He is Editor for Journal of Catalysis.

For the past 24 years I have worked in catalysis in industry and mostly in academia. My research interests are in the kinetics of heterogeneous catalytic reactions and catalyst characterization under reaction conditions. From past service to NACS, ACS and AIChE, I am familiar with our catalysis community. Our field has recently enjoyed a resurgence in interest from the realization that it will be a major enabler in the transformation of the vast reserves of natural gas to chemicals and fuels. I believe we can grow our membership and attract the best young people to work in catalysis. If elected, I will help NACS to continue to promote our field.

**Stuart (Stu) L. Soled**

Distinguished Research Associate
ExxonMobil Research & Engineering Co.
1545 Rt. 22 East
Annandale, NJ 08801

Research Interests: Novel catalytic materials (and reactions).

2008 Chair of Gordon Research Conference, NACS current director-at-large, 2012 Herman Pines Award Chicago Catalysis Society, Heroes in Chemistry Award American Chemical Society (2008), NACS Ciapetta Lectureship (2006-7), New York Catalysis Society Excellence in Catalysis Award (2003), New Jersey Thomas Alva Edison Patent Award (2002).

Ph.D., Brown University, Chemistry, 1973
B.S., City College of New York, 1969.

Member of New York Catalysis Society.

I have two issues that I feel strongly about. One involves a closer working relationship between academia and industrial researchers- something I have personally tried to foster for many years. The other is to help our students and young scientists see what an exciting career and interesting life they can have in catalysis research if they can catch the "fever".

**Eric E. Stangland**

Senior Research Scientist
Characterization Group Leader
Inorganic Materials & Heterogeneous Catalysis, Core Research & Development,
The Dow Chemical Company,

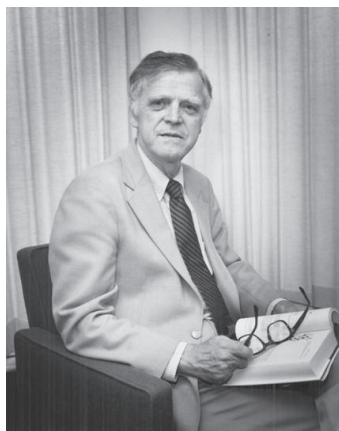
Eric Stangland received his B.S. Ch.E. from The University of Wisconsin-Madison (1994) and his Ph.D. in Chemical

Engineering from Purdue University (2000) studying under Nick Delgass in the field of gold-based heterogeneous catalysis. Eric began his career at The Dow Chemical Company in 2000 on the Research Assignments Program, gaining initial experience in industrial catalysis, kinetic modeling, polymer processing, and pilot plant design. In 2001, Eric joined the Core R&D catalysis laboratories where over the last 12 years, both in internal research and through University collaborations, he has been a technical leader to a variety of catalytic chemistries including alkane (methane) activation, ethylbenzene dehydrogenation, alkane oxychlorination, olefin epoxidation, and MeX-to-olefins. As Characterization Group Leader, Eric is responsible for a team involved in applying various adsorption and spectroscopy-based tools to characterize various catalysts and inorganic materials for multiple applications. In 2004 he was awarded both the Dow Chemical Individual Technical Award for Outstanding Development of Chemical Technology and the Mid-Michigan Section of the AIChE Young Chemical Engineers Award, In 2008, he became a certified Green Belt Project Leader.

Eric is active in AIChE and the NACS, and has served the catalysis community as both President and Director of the Michigan Catalysis Society and as Technical Program Co-chair for the 22nd NACS Meeting in Detroit. If elected as DAL, he will seek means within the NACS to enhance catalyst student-industrial scientist interaction and education, providing increased opportunity for the future flag-bearers of the science to learn the skills needed to succeed industrially and thereby advance the world through catalysis and its application.

The Robert Burwell Lectureship In Catalysis

Nominations are open, deadline is 30 April 2013



The Robert Burwell Lectureship in Catalysis is sponsored by Johnson Matthey Catalysts Division and administered by The North American Catalysis Society. It is to be awarded biennially in odd-numbered years. The award consists of a plaque and an honorarium of \$5,000. An additional \$4,500 is available to cover travel-

ling expenses in North America. The awardee is expected to lecture at many of the local catalysis clubs.

The award is given in recognition of substantial contributions to one or more areas in the field of catalysis with emphasis on discovery and understanding of catalytic phenomena, catalytic reaction mechanisms and identification and description of catalytic sites and species. The Awardee will be selected on the basis of his/her contributions to the catalytic literature and the current timeliness of these research contributions. The recipient may be invited to (1) visit and lecture to each of the affiliated Clubs/Societies with which mutually satisfactory arrangements can be made and (2) prepare a review paper(s) for publication covering these lectures. Publication will be in an appropriate periodical.

Selection of the Award winner will be made by a committee of renowned scientists and engineers appointed by the President of The North American Catalysis

Society. Selection shall be made without regard for age, sex, nationality or affiliation. Posthumous awards will be made only when knowledge of the awardee's death is received after announcement of the Award Committee's decision. Nomination packages should indicate the nominee's qualifications, accomplishments with CV, a nominating letter, no more than two seconding letters and a biography of the nominee. A critical evaluation of the significance of candidate's qualifications should be made as well as a statement of the particular contribution(s) on which the nomination is based. Nomination packages for the Award must be received by 30 April 2013 in one complete package.

All nomination packages (one ELECTRONIC COPY) for the Burwell Award should be sent to Enrique Iglesia, President, North American Catalysis Society at iglesia@berkeley.edu. Receipt of any nomination, will be confirmed by an email message sent to any nominator.

23rd NAM Timeline

March 15, 2013 - Notification of accepted abstracts (oral and posters) and awarded Kokes grants

April 19, 2013 - Deadline for early Registration

April 20 - May 30, 2013 - Open Registration

June 2, 2013 - Opening Ceremony at Churchill Downs

June 2-7, 2013 - On-Site Registration and Technical Program

Proposed Amendments to the By-laws

Below is an overview of the proposed amendments, as well as a rationale for each one of them, followed by the full text of the by-laws. The rationale to amend the by-laws was coded using a *blue-italic font*, deletions were ~~strike-through~~ and amendments were coded using an *italic font highlighted in yellow*. View the Letter form the President for more information. A PDF version of this document is available at Proposed By-laws — February 2013.

PROPOSED AMENDMENTS

ARTICLE V

Section 2. No one person shall be entitled to hold *two office positions* at any one time.

Proposal: Extend the exclusion from holding two office positions to all such positions

Rationale: Apply this consistently to all officers, not just to the President and Secretary, as currently stated.

ARTICLE VIII

Section 1. The Board of Directors shall consist of members elected by the affiliated catalysis society(ies), one from each, *six (6)* members elected from the members elected at large by the membership of the NACS, and any officers (elected by the Board) who are not already members of the Board.

ARTICLE XIII

Section 1. The at-large members of the Board of Directors to be elected by the membership at large shall be elected from a slate of not fewer than *ten (10)* nominees selected by the Nominations Committee, appointed by the President. Election shall be by *electronic* ballot of the membership of the NACS. Any member of the NACS shall be added to the slate upon receipt by the President of the NACS, no more than one-half of whom shall be members of any one affiliated catalysis society(ies), provided that the petition shall be received by the President prior to the first of January of the year in which new members of the Board of Directors are to be elected. Election shall be by plurality vote. The elected at-large members of the Board of Directors will be seated at the next meeting of the Board of Directors and will be the at-large members who vote for the election of new officers.

Proposal: Increase number of Directors-at-Large from 4 to 6 and the required number of candidates from 7 to 10.

Rationale:

- 1. The current number of DAL date to a time when membership and local clubs were fewer than today and they represent a smaller fraction of the Board than in earlier times.*
- 2. The “at-large” members represent the community at the national level and they are the only members of the Board elected by the entire membership of NACS.*
- 3. DAL are more permanent members of the Board than the local representatives, which often change between meetings due to rotations and local elections; DAL also tend to attend these meetings with fewer instances of substitutions. In doing so, DAL represent a cadre of experienced board members and provide meeting-to-meeting continuity, as well as a pool from which to draw in case of unexpected or planned rotations of officers.*

ARTICLE XV

Section 2. The act of the majority of the members of the Board of Directors present at a meeting of the directors at which a quorum is present shall be the act of the Board. Members of the Board of Directors may participate in a meeting of the Board by means of conference telephone or similar communications equipment whereby all persons participating in the meeting can hear each other, and participation in a meeting in this manner shall constitute presence in person at the meeting. In the absence of a meeting by a majority of the members of the Board, resolutions can be enacted by *a majority* written consent of all the members of the Board.

Proposal: Change from “unanimous” to “a majority”

Rationale: “Unanimous written consent” as in current bylaws is not consistent with our operating rules, by which all motions are approved by a majority of the votes cast.

ARTICLE XVII

Section 3. The Executive Committee shall comprise of elected officers and key functional positions within the NACS. Members of the Executive Committee shall be designated by the President, but should include: the President, Vice-President, Secretary, Treasurer, Lead Trustee of the Keith Hall Educational Fund, *Communications Director, Archivist*, and the *most recent living* past President.

Proposal: Update the by-laws to reflect previous votes of the Board in which Communications Director and Lead Trustee were made Officer positions and the position of Archivist was created. Note that the Executive Committee differs from Officers and the members of the former are appointed by the President; the Executive Committee is advisory and non-voting (although some members may hold voting rights as Officers). The proposed changes also clarify as “most recent living” the specific identity of the “past President”

Rationale: The modification of Executive Committee members reflect the changes of Officers approved by the Board in the past meetings. The original bylaws were unclear about which past-President was meant.

ARTICLE XIX

Section 1. These Bylaws may be amended by a majority vote of the members voting either (a) in person, by proxy or by ballot receive at a duly convened membership meeting of the NACS, or (b) by *electronic ballot* circulated at the instance of the Board

Proposed Amendments to the By-laws

of Directors, provided that notice of the proposed amendment shall be contained in the notice of such duly convened meeting or in such **electronic ballot** so circulated.

Proposal: Replace mail ballots with electronic voting managed by independent contractor to ensure accuracy and confidentiality

Rationale: Previous NACS postal mail ballots have led to <20% vote yields and included many returned ballots because of outdated postal addresses. A shift to electronic voting has led to nearly 50% responses, while ensuring the confidentiality, integrity, and accuracy of the process. Electronic ballots have become the norm for all learned societies, as well as for corporate shareholder votes more generally.

ARTICLE XX

Section 1. These Bylaws shall be adopted by a majority **of votes cast** of the general membership as herein provided, and shall become effective immediately thereafter.

Proposal: Clarify the wording by adding “of votes cast”

Rationale: The current wording is unclear and the interpretation could be equivocal. A majority of votes of the general membership, as in any election, is not certain to be achieved because not all members may choose to participate in the voting.

By-laws of the North American Catalysis Society

Revision – February 2013

We, the members hereof, associate ourselves for these purposes: to promote and encourage the growth and development of the science of catalysis and those scientific disciplines ancillary thereto; to organize and participate in professional meetings of scientists; to report, discuss and exchange information and viewpoints in the field of catalysis; to serve as a central exchange for the several catalysis club(s)/society(ies) (hereafter referred to as societies) concerning information on their activities; and to provide liaison with foreign catalysis societies, with the International Association of Catalysis Societies, and with other scientific organizations and individuals

ARTICLE I

Name

Section 1. The name of this corporation shall be: The North American Catalysis Society,(NACS).

ARTICLE II

Membership

Section 1. Any person from North America associated, directly or indirectly, with the fields of endeavor referred to in the purpose clause of these Bylaws, shall be eligible for full membership.

Section 2. All members of any affiliated North American catalysis society(ies) shall become individual members of the NACS in the event of an appropriate resolution of affiliation enacted by the Executive Board of similar governing body of such catalysis society(ies), as hereinafter provided.

Section 3. Any North American catalysis society(ies) in existence at the time of the adoption of these Bylaws may thereafter affiliate with the NACS by resolution of its Executive board or similar governing body.

Section 4. Any North American catalysis society(ies) founded after the adoption of these Bylaws may affiliate with the NACS by resolution of its Executive Board or similar governing body, but only after being invited to do so by the Board of Directors of the NACS.

Section 5. Nothing herein shall preclude members of any catalysis society(ies) from becoming individual members of the NACS, notwithstanding that such catalysis society(ies) may not have been invited to affiliate with the NACS.

By-laws of the North American Catalysis Society

Articles III to VI

Section 6. Persons from outside North America may indicate their interests in joining NACS as Associate Members. As Associate Members they do not have to pay dues, and they are not eligible to vote on elections and other matters pertaining to the NACS.

Section 7. The local clubs shall be entities that are separate from the NACS.

ARTICLE III

Dues, Finances and Compensation

Section 1. Membership fees shall be paid in such amounts and for such periods as shall be determined by the Board of Directors.

Section 2. The fiscal year of the NACS shall end on December 31.

Section 3. No compensation shall be paid to any officers or directors for their services rendered to the NACS in such capacities; provided, however, that this shall not preclude such officers and directors from being reimbursed for expenses incurred by them in the conduct of their activities in such capacities, at the discretion of the Board of Directors.

ARTICLE IV

Location

Section 1. The registered office of the NACS shall be located within the Commonwealth of Pennsylvania, at such place as shall be determined by the Board of Directors. The principal office of the NACS shall be located at such place as shall be determined by the Board of Directors without restriction as to jurisdiction.

ARTICLE V

Officers

Section 1. The officers of the NACS shall consist of a President, Vice-President, Secretary, Treasurer, **Lead Trustee** and Foreign Secretary **Communications Director**.

Section 2. No one person shall be entitled to hold the office of President and Secretary **two office positions** at any one time.

Section 3. Only members of the NACS shall be eligible for election to office.

ARTICLE VI

Duties of Officers

Section 1. The President shall be the chief executive officer of the NACS and shall preside at all meetings of the membership and/or the directors; he/she shall call all meetings of the directors; he/she shall have general and active management of the

business of the NACS and shall, either directly or by delegation, see that all orders and resolutions of the Board of Directors and that all duties of the officers are properly performed; he/she shall submit interim reports of the operation of the NACS to the membership as and when meetings of the membership shall be held and to the Board of Directors at their various meetings as hereinafter provided; he/she shall appoint all committees except as herein otherwise provided, and he/she shall be an ex-officio member of all committees so appointed; he/she may delegate the performance of any of the foregoing; he/she shall execute any and all contracts and other documents in behalf of the NACS pursuant to authority delegated to him/her for such purposes by resolution duly adopted by the Board of Directors, and he/she shall perform such other duties as may be prescribed by the Board of Directors from time to time.

Section 2. The Vice-President shall perform all duties of the office of President in the latter's absence, incapacity or arbitrary refusal to act, and, when so acting, shall have all powers of and be subject to all restrictions upon the office of President. Further, he/she shall perform such other duties as may be prescribed by the Board of Directors or by the President, from time to time.

Section 3. The Secretary shall attend all meetings of the Board of Directors and of the membership and shall perform the following various duties: he/she shall maintain a list of the membership and their addresses; he/she shall record minutes of all meetings in a book to be maintained for that purpose and, when required, shall perform a similar service for all standing committees; he/she shall send to the Board of Directors and/or to the membership all notices as to the business of the NACS and as to the time, date and place of all meetings to be held of the Board of Directors and/or of the membership, respectively; he/she shall engage in, and maintain records of, all correspondence as required by the business of the NACS; he/she shall be the custodian of the corporate seal and of all books and records of the NACS, except as herein otherwise provided; he/she shall attest any and all contracts and other documents, and shall affix the corporate seal as necessary, in behalf of the NACS pursuant to authority delegated to him/her for such purposes by resolution duly adopted by the Board of Directors or by the President, from time to time. In the event of the Secretary's absence, incapacity or arbitrary refusal to act, his/her duties shall be performed by a Secretary Pro Tem appointed by the Board of Directors or by the President.

Section 4. The Treasurer shall be the custodian of all funds as well as financial books and records of the NACS and shall deposit all such funds in the name of the NACS in such depository or depositories as shall be designated by the Board of Directors; he/she shall collect and receive all fees, contributions and grants paid to the NACS; he/she shall pay all vouchers and obligations pursuant to authority duly granted to him/her by the President and Secretary or by resolution of the Board of Directors; he/she shall prepare and submit complete and accurate interim financial reports of the finances of the NACS as and when meetings may be held, as well as to the Board of Directors at any time upon request therefrom, and he/she shall perform such other duties as may be prescribed by the Board of Directors or by the President, from time to time.

Section 5. ~~The Foreign Secretary shall attend all meetings of the Board of Directors and perform the following duties: maintain contact with other catalysis societies~~

By-laws of the North American Catalysis Society

Articles VII to XI

outside North America and maintain records of correspondence with these societies; distribute the NACS Newsletter to other catalysis societies and serve those functions of the Secretary with foreign members; serve as one of the two NACS representatives to the Council of the International Association of Catalysis Societies; and perform such other duties as may be prescribed by the Board of Directors or by the President, from time to time. *The Lead Trustee shall monitor and assign variety of investment vehicles with input from trustees; lead sub-committee (of trustees, President and Treasurer) that reviews investment decisions; review investment strategy (biannual); generate annual financial report by March 15 for IRS reporting; and with accountant prepare 990 tax form and submit to IRS by May 15 of each year.*

Section 6. The Communications Direction shall maintain and add new content in the NACS website; renew website domain name as scheduled by payments in register.com; publish a Newsletters with a target of four issues per year; maintain a list of current members from local Clubs; maintain an email distribution list of members; update distribution list in mail server as needed; provide mailing list for rental on a fee per use basis to customers; administer electronic elections for Director-at-Large every 4 years or other events as needed; and arrange contract for electronic website for voting and generate usernames and passwords for electronic ballots.

ARTICLE VII

Bonds

Section 1. The Board of Directors may require any of the officers to be bonded at such times and for such amounts as it shall deem necessary.

Section 2. The Board of Directors may require the administrators(trustees) of the Keith Hall Educational Fund and any outside professional who assumes an active role in administering the proceeds of the Fund to be bonded.

ARTICLE VIII

Board of Directors

Section 1. The Board of Directors shall consist of members elected by the affiliated catalysis society(ies), one from each, ~~four (4)~~ **six (6)** members elected from the members elected at large by the membership of the NACS, and any officers (elected by the Board) who are not already members of the Board.

Section 2. Only members of the NACS shall be eligible for election to the Board of Directors.

ARTICLE IX

Duties and Powers of the Board of Directors

Section 1. The property and business of the NACS shall be managed by the Board of Directors.

Section 2. In addition to the general powers of the Board of Directors existing by virtue of their office, the powers and authority expressly given by law, by the terms of the Articles of Incorporation of the NACS, and elsewhere in these Bylaws, the following specific powers are expressly conferred on the Board of Directors.

To appoint and/or remove any and all agents, servants or employees of the NACS, other than the members of the Board of Directors and the officers, and to determine their duties and salaries, as well as to delegate such powers to an officer of the NACS; to authorize the negotiating and executing of all contracts, documents and instruments appropriate for the proper operation of the NACS; to delegate any powers of the Board of Directors to any committee of Board members, not less than two (2) in number, for so long and under such terms as the Board may determine; to establish policies of the NACS and to direct the execution of the same, pursuant to the purposes of the NACS, and generally to do all lawful acts and things as are not herein otherwise delegated or directed to be done by the membership or officers of the NACS.

ARTICLE X

Meetings of the Board of Directors

Section 1. The Board of Directors shall meet at least annually at the call of the President. In addition, the Board of Directors shall meet intermittently at such times and places as may be set by resolution duly adopted at duly convened meetings of the Board of Directors.

Section 2. Special meetings of the Board of Directors shall be called by the President and/or Secretary as and when they or either of them shall deem it necessary, or upon the signed written request of any three (3) members of the Board of Directors, the times and places of such special meetings to be determined by the officer calling the same.

Section 3. The Secretary shall send to each member of the Board of Directors, at least one (1) week's prior written notice of any special meeting and at least ten (10) days prior written notice of any annual or intermittent meeting.

Section 4. Notwithstanding Article 20, the Provisions of the ARTICLE may be amended at any regular duly convened meeting by a majority vote of the members of the Board of Directors present and voting at such meeting.

ARTICLE XI

Meetings of the Membership

Section 1. Meetings of the membership in general shall be held at such times and places as shall be determined by the Board of Directors.

Section 2. Notices of the meetings of the membership in general shall be given to each member at least thirty (30) days in advance of the date of such meeting, provided that the payment of such member's membership fee is not then in default.

By-laws of the North American Catalysis Society

Articles XII to XIV

Section 3. Location of national biennial technical meetings of the NACS shall rotate around the membership clubs. For this purpose these meetings shall be operated by the local society. For these meetings the NACS shall be responsible for the selection of the meeting organizers. For this meeting, the operating local society has an “agency” (as defined by the US IRS in 2000) relationship with the NACS for the organization and operation of the meeting.

ARTICLE XII

Notices

Section 1. Notices of all meetings of the membership and of the Board of Directors shall be mailed to each member of the NACS or of the Board of Directors, addressed to such members or directors latest addresses, as recorded in the books of the NACS.

Section 2. Attendance by a member or by a Director at any meeting shall constitute a waiver of notice of such meeting, except where attendance at such meeting is for the express purpose of objecting to the transaction of business because said meeting was allegedly not lawfully or duly called or convened, and where such objection is made immediately following the convening of such meeting.

Section 3. Any notice may be waived in writing, signed by the person or persons entitled thereto, either before or after the time and date stated therein, and such waiver shall be entered into the minutes of the meeting held pursuant to such waiver of notice.

Section 4. Neither the business to be transacted at, nor the purpose of any membership meeting, or any annual or intermittent meeting of the Board of Directors, need be stated in any notice or waiver of notice of such meeting unless otherwise specifically required by law or by these Bylaws. Notice of any special meeting of the Board of Directors shall contain the purpose of, and a brief description of the business to be transacted by such meeting.

ARTICLE XIII

Nominations, Elections and Terms of Office

Section 1. The members of the Board of Directors to be elected by the membership at large shall be elected from a slate of not fewer than ~~seven (7)~~ **ten (10)** nominees selected by the Nominations Committee, appointed by the President. Election shall be by mail **electronic** ballot of the membership of the NACS. Any member of the NACS shall be added to the slate upon receipt by the President of the NACS, no more than one-half

of whom shall be members of any one affiliated catalysis society(ies), provided that the petition shall be received by the President prior to the first of January of the year in which new members of the Board of Directors are to be elected. Election shall be by plurality vote. The elected at-large members of the Board of Directors will be seated at the next meeting of the Board of Directors and will be the at-large members who vote for the election of new officers.

Section 2. The one (1) member of the Board of Directors from each affiliated catalysis society(ies) shall be elected by the respective catalysis society(ies) in accordance with its internal procedures.

Section 3. Nominations for the officers shall be made at a Board meeting and elected by the Board of Directors at a meeting of such Board convened with reasonable dispatch after the election of such Board. The officers shall take office on July 1, 2001, and every four years thereafter.

Section 4. The term of office for all officers and members of the Board of Directors shall be four (4) years. All officers and members of the Board of Directors shall continue in their respective capacities until their successors are elected.

Section 5. Any vacancies in the Board of Directors or among the officers arising by reason of death or resignation, shall be filled for the unexpired term by a majority vote of the remaining members of the Board of Directors present and voting at the first meeting held after such death or resignation. In the event that the President is no longer able to serve (for reasons of death or resignation), the Vice-President shall assume his/her duties until a meeting of the Board of Directors within 2 months of the loss of the elected President. In the event that neither the President nor the Vice President is able to serve, the Executive Committee shall elect one of its members to serve as the operating officer (by majority voting) until an emergency meeting of the Board of Directors can be convened (within 2 months of the vacancies).

Section 6. Election of officers and of members of the Board of Directors shall be by closed, written ballot, whether submitted at a meeting or by mail.

Section 7. Any member who shall have paid his/her dues shall be eligible to hold office in the NACS, whether as an officer or as a member of the Board of Directors.

ARTICLE XIV

Quorum

Section 1. A quorum for the purpose of holding a meeting of the membership generally shall consist of such members as shall be in attendance at the time and place when such meeting is to convene.

Section 2. A quorum for the purpose of holding any meeting of the Board of Directors shall consist of a majority of all of the members of the Board, exclusive of any member who may have resigned or died. If a quorum is unavailable for any meeting of the Board of Directors, that meeting shall be adjourned to a new time and place, due notice of which shall be given to the members of the Board of Directors, in which event a quorum, for purposes of the said adjourned meeting, shall consist of such members of the Board of Directors as shall be in attendance at the time and place when such adjourned meeting is to convene.

By-laws of the North American Catalysis Society

Articles XV to XX

ARTICLE XV

Voting

Section 1. All matters to be voted upon by the general membership, other than election to the Board of Directors, shall be determined by majority vote of the members voting.

Section 2. The act of the majority of the members of the Board of Directors present at a meeting of the directors at which a quorum is present shall be the act of the Board. Members of the Board of Directors may participate in a meeting of the Board by means of conference telephone or similar communications equipment whereby all persons participating in the meeting can hear each other, and participation in a meeting in this manner shall constitute presence in person at the meeting. In the absence of a meeting by a majority of the members of the Board, resolutions can be enacted by ~~unanimous~~ **majority** written consent of all the members of the Board.

Section 3. Each member of the Board of Directors shall be entitled to one (1) vote in such capacity at the meeting of the Board, and each member of the NACS shall be entitled to one (1) vote in such capacity.

Section 4. Proxy voting at membership shall be permitted, provided that such proxy is executed in writing by the individual entitled to cast such vote and provided such proxy specifies the meeting at, or the duration for which, such proxy shall be effective.

Section 5. Mail balloting at membership meetings shall be permitted, provided that such mail ballot is signed by the member entitled to cast such vote. If the matter being voted upon is to be the subject of a membership meeting, such mail ballot shall be valid only if received no later than the convening of such meeting. If the matter being voted upon is the subject of a general mail ballot only, such mail ballot shall be valid only if received no later than the date specified for such purpose in the material promulgating to the membership the subject to be voted upon.

ARTICLE XVI

Inspection of Books, Accounts and Records

Section 1. The books, accounts and records of the NACS shall be open for inspection at any time by any officer or member of the Board of Directors.

Section 2. The books, accounts and records of the NACS shall be open for inspection by any member of the NACS at such reasonable times and places as may be designated by resolution duly adopted by the Board of Directors; provided, however, that the Board of Directors shall designate a time and place for the examination of such books,

accounts and records by the membership immediately prior to, during, or immediately following any membership meeting which may be held.

ARTICLE XVII

Committees

Section 1. The President shall appoint the Nominations Committee to suggest candidates for officers of the NACS; at the time of elections of the officers, additional nominations may be received from those attending the Board meeting.

Section 2. In addition to such committees as the President may appoint pursuant to these Bylaws, the Board of Directors may establish and appoint, from time to time, such additional standing and/or special committees as it may deem appropriate.

Section 3. The Executive Committee shall be comprised of elected officers and key functional positions within the NACS. Members of the Executive Committee shall be designated by the President, but should include: the President, Vice-President, Secretary, Treasurer, ~~Foreign Secretary~~, Lead Trustee of the Keith Hall Educational Fund, **Communications Director, Archivist** and the **most recent living** past President.

Section 4. The President may call a meeting of the Executive Committee to seek its advice.

Section 5. An Awards Committee shall be appointed by the President and led by the Vice President, for the purpose of soliciting suggestions for nominations for the professional award. This committee should be selected in a manner to avoid conflict of interests in the award process.

ARTICLE XVIII

Corporate Seal

Section 1. The Secretary shall hold the Corporate Seal.

ARTICLE XIX

Amendments to Bylaws

Section 1. These Bylaws may be amended by a majority vote of the members voting either (a) in person, by proxy or by mail ballot received at a duly convened membership meeting of the NACS, or (b) by ~~mail~~ **electronic** ballot circulated at the instance of the Board of Directors, provided that notice of the proposed amendment shall be contained in the notice of such duly convened meeting or in such ~~mail~~ **electronic** ballot so circulated.

ARTICLE XX

Adoption of Bylaws

Section 1. These Bylaws shall be adopted by a majority vote of **votes cast** the general membership as herein provided, and shall become effective immediately thereafter.

By-laws of the North American Catalysis Society

Articles XXI to XXV

ARTICLE XXI

Procedural Requirements

Section 1. All meetings of the Board of Directors and all meetings of the membership of the NACS shall be conducted pursuant to Roberts' Rules of Order, these Bylaws, and to any additional rules adopted by such meetings not inconsistent with either of the foregoing.

ARTICLE XXII

Professional Awards

Section 1. The NACS has established a series of professional awards for distinction in catalysis. The President is responsible for the selection of a jury for each award, which shall be made up of established technologists in catalysis without having any conflicts of interest in the nominations or award process. Each jury shall be made up of at least 3 persons appointed by the President. Their decisions shall be confidential and reported only to the President, who then tallies the voting, and notifies the winner.

ARTICLE XXIII

Keith Hall Educational Fund

Section 1. Within NACS shall be the Keith Hall Educational Fund (Fund), disbursements from only the net income of which shall be made for the support and maintenance of the tax-exempt activities of NACS, including but not limited to national lectureships, seminars and symposia, assistance for attendance at national meetings of NACS for graduate students or post-doctoral fellows, and award recognizing contributions to the furtherance of the field of catalysis. Although the Fund shall be subject to the ultimate administration of the Board of Directors of NACS, it may be administered on a day-to-day basis by "trustees," who shall be appointed by the President of NACS for staggered 6 year terms, with the concurrence of the Executive Committee of NACS. One of these trustees shall be designated by the President as the Lead Trustee, who shall be responsible for reporting the status of the Fund on a quarterly basis to the President and to the Board on an annual basis. These trustees shall receive, hold, invest, and reinvest the assets of the Fund.

Section 2. The President is empowered to replace an appointed trustee for due cause subject to the approval of a majority of the Executive committee and confirmation by the Board of Directors.

ARTICLE XXIV

Restrictions and Interpretation

Section 1. No part of the net earnings of NACS shall inure to the benefit of, or be distributable to, its members, directors, officers, or other private persons, except that NACS shall be authorized and empowered to pay out of pocket expenses for services rendered and to make payments and distributions in furtherance of the purposes of NACS. Approval of the President is required for such expenses, which are to be reported to the Board at its annual meeting.

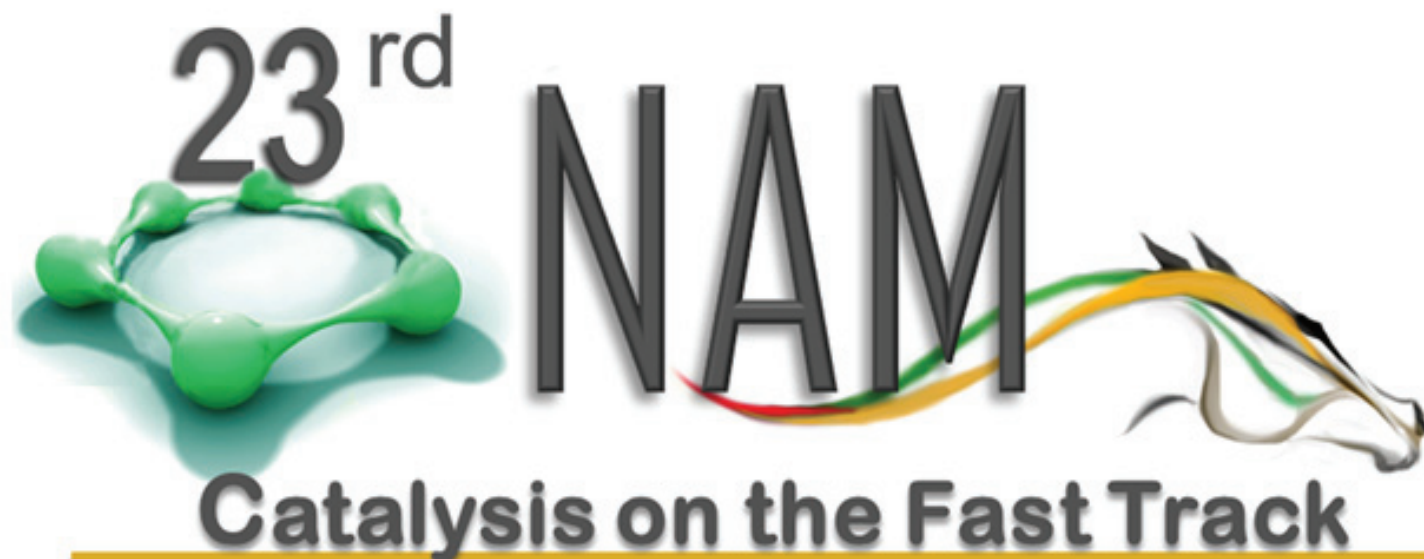
Section 2. No substantial part of the activities of NACS shall be the carrying on of propaganda, or otherwise attempting to influence legislation. NACS shall be empowered to make the election provided by IRC § 501(h). NACS shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of or in opposition to any candidate for public office.

Section 3. Notwithstanding any other provisions of these Bylaws or the Articles of Incorporation, NACS shall not carry on any activities not permitted to be carried on (i) by a corporation exempt from federal income tax under IRC § 501(a) by reason of description in IRC §501(c)(3), or (ii) by a corporation, contributions to which are deductible under IRC § 17(c)(2).

ARTICLE XXV

Dissolution

Section 1. Upon the dissolution of NACS, the Board of Directors shall, after paying or making provisions for the payment of all of the liabilities of NACS, dispose of all of the assets of NACS exclusively for one or more of the purposes of NACS which may include distribution to an organization or organizations organized and operated exclusively for one or more of such purposes, or shall distribute all of the assets of NACS to the federal government, or to a state or local government, for a public purpose. Any assets not so disposed of shall be disposed of by the Circuit Court of the county in which the principal office of NACS is then located, exclusively for such purposes or to such organization or organizations, as said court shall determine, which are organized and operated exclusively for one or more of the purposes of NACS.



**23rd North American Catalysis
Society Meeting
2013**

**June 2-7, 2013
Louisville, Kentucky**

www.NAM23.org

Catalysis Club of Philadelphia

Call for Nominations of The 2013 Catalysis Club of Philadelphia Award

Each year the Catalysis Club of Philadelphia recognizes an outstanding member of the catalysis community, who has made significant contributions to the advancement of Catalysis. Such advancement can be scientific, technological, or in organization leadership. The Award consists of a plaque and a \$1000 cash prize.

We appreciate your help in submitting nominations. The entire nomination package, including a resume and recommendation letters, should not be more than 10 pages and should include a ½ page tentative award announcement. The deadline for the receipt of nominations is April 19, 2013. Prior nomination packages sent in 2011 or later will automatically be considered for the 2013 Award.

Nomination letter along with supporting materials should be emailed to fedeyjm@jmus.com.

Joseph Fedeyko
Johnson Matthey ECT
436 Devon Park Drive
Wayne, PA 19087
Tel. 610-341-8218
Fax 610-341-3495

Past Recipients of the Award

1968 Adalbert Farkas
1969 Charles J. Plank
1970 Paul H. Emmett
1971 G. Alex Mills
1972 Alfred E. Hirschler
1973 Paul B. Weisz
1974 Roland C. Hansford
1975 Paul Venuto
1976 Heinz Heinemann
1977 G.C.A. Schuit
1978 George W. Parshall
1979 Alvin B. Stiles
1980 Abraham Schneider
1981 James F. Roth
1982 Robert Eischens
1983 Edward Rosinski
1984 James R. Katzer
1985 N.Y. Chen
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2002 Steven D. Ittel

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2004 Jingguang Chen
2005 Israel Wachs
2006 James Dumesic
2007 John Vohs
2008 David Olson
2009 Ted Oyama
2010 Chuck Coe
2011 Chunshan Song
2012 Rostam Madon

2013 Spring Symposium

Thursday May 9th, 2013
Doubletree Hotel Wilmington, DE

Invited Speakers:

Thomas Degnan, Exxon-Mobil

Andrew Rappe, University of Pennsylvania

Michael Smith, Villanova University

Charles Peden, Pacific Northwest National Lab

Michael Klein, University of Delaware

Jeffrey Greeley, Argonne National Lab

Dongxia Liu, University of Maryland

Thomas R. Gordon, University of Pennsylvania — Winner of the CCP Student Poster Competition

Michigan Catalysis Society

The Michigan Catalysis Society has had 5 excellent presentations from our invited speakers during the 2012-2013 season. On September 18, 2012 Dr. Mark Barteau of the University of Michigan spoke on “Energy Challenges from the Global to the Nano Scale”. On October 23, 2012 Professor Cynthia Friend of Harvard University spoke on “Heterogeneous catalysis for energy efficient synthesis: Lessons from Surface Chemistry”. On November 29 Professor Raymond Gorte of the University of Pennsylvania spoke on “Catalytic properties of materials prepared from dispersible Pd@ceria building blocks”.

On January 24, 2013 the Michigan Catalysis Society (MCS) hosted Professor John Kitchen of Carnegie Mellon University, who spoke on “In situ spectroscopic studies of metal oxide electrodes during water oxidation”. Then on February 6, 2013 MCS hosted Professor Bert Weckhuysen of Utrecht University, who spoke on “Heterogeneities of individual catalyst particles in space and time as monitored by spectroscopy”. MCS will host Professor Dion Vlachos of the University of Delaware on April 17, who will speak on “Modern catalytic technologies for converting biomass to renewable fuels and chemicals”.

The Michigan Catalysis Society will host the 34th MCS Spring Symposium at the University of Michigan in Dearborn on Tuesday, May 7, 2013. Registration will begin at 8:00 AM. Invited speakers include Dr. Charles Peden of the Pacific Northwest National Laboratory (PNNL) and Professor Maria Flytzani-Stephanopoulos of Tufts University.

Michigan Catalysis Society

Giuseppe Parravano Award

The Michigan Catalysis Society is pleased to announce that Maria Flytzani-Stephanopoulos of Tufts University has been awarded the 2013 Michigan Catalysis Society Parravano Memorial Award for Excellence in Catalysis Research and Development. This award is based on Professor Stephanopoulos' illustrious career in catalysis and the closely related field of adsorption processes – both aimed largely at energy utilization and pollution control.

The Michigan Catalysis Society Parravano Memorial Award for Excellence in Catalysis Research and Development is given biennially in odd-numbered years to a researcher from North America to formally recognize outstanding contributions to catalysis research and technology development. The Parravano Awards are sponsored by the Memorial Trust Fund for Professor Giuseppe Parravano, which has been established by the Department of Chemical Engineering at the University of Michigan and administered by the Michigan Catalysis Society.

Southwest Catalysis Society

The Southwest Catalysis Society will hold its annual Spring symposium on Friday April 26 on the Rice University Campus in Houston. Registration will begin at 8:30. There is plenty of parking available, and further details on the exact location and parking will be forthcoming. Confirmed speakers to date:

- **Jerry Spivey**, LSU
- **Tushar Choudhary**, Phillips 66
- **Li Liu**, Texas A&M
- **Doron Levin**, ExxonMobil
- **Lars Grabow**, University of Houston

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23rd **NAM**

March 15, 2013

Notification of accepted abstracts (oral and posters) and awarded Kokes Grants

April 19, 2013

Deadline of early Registration

April 20 – May 30, 2013

Open Registration

June 2-7, 2013

On-Site Registration

June 2, 2013

Opening Ceremony at Churchill Downs:
6 pm - 10 pm

June 2-7, 2013

Technical Program



Sponsors

We thank all of the meeting sponsors for their generous support. For frequent updates and sponsor information please visit the meeting website for details:
www.NAM23.org

Exhibition

An exhibition of the latest instruments, products, and services in the field of catalysis research and development will be held during the 23rd NAM. Interested participants can obtain the **EXHIBITOR BROCHURE** by visiting our website.

Kokes Travel Awards

Richard J. Kokes Student Travel Awards: ~ 100 awards will be made available.

Catalyst Design and Synthesis

- Novel catalytic materials and synthesis techniques
- Catalyst design guided by theory
- Bio-mimetic catalysis

Novel Catalyst Characterization Techniques

- Exsitu, insitu and operando techniques

Advances in Catalytic Reaction Engineering

- Novel contacting methods; catalysis and mass transfer
- Reactions in non-conventional media

Catalysis for Energy Applications

- Hydrogen production; catalytic production of clean fuels
- Fuel cells, batteries and electrocatalysis
- Fischer-Tropsch synthesis and gas to liquids
- Photo-catalysis

Catalysis for Sustainability

- Emission control; CO₂ capture and conversion
- Catalytic combustion
- Catalytic conversion of biomass
- Green catalytic processes

Catalysis for Fine and Industrial Chemicals

- Acid-base catalysis; chiral catalysis; polymerization
- Partial oxidation, oxidative dehydrogenation

Catalyst Deactivation and Regeneration

- Deactivation mechanisms and regeneration schemes

Computational Catalysis

- First-principles-based catalyst screening
- Multi-scale modeling; reactive force fields

Fundamentals of Catalysis

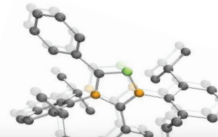
Emerging and Cross-cutting Areas

Inquiries should be sent to:

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On-line registration: www.NAM23.org



23rd NAM will bring together more than 1,000 participants to share technical progress and challenges in all areas related to catalysis. It will include three plenary lectures, presented by the recipients of the Boudart, Houdry, and Emmett awards, ~20 keynote addresses by leaders in the field, more than 400 oral presentations, and about 600 posters.

Plenary Lectures

PAUL EMMETT Award Lecture

- *Christopher Jones*

EUGENE HOUDRY Award Lecture

- *Giuseppe Bellussi*

MICHEL BOUDART Award Lecture

- *Jens Nørskov*

Select Keynote presentations by:

- | | |
|------------------------------|----------------------------------|
| • John Armor -- USA | • C.J. Li -- Canada |
| • Alex Bell -- USA | • David Jackson -- UK |
| • Jeffery Bricker -- USA | • Jeff Miller -- USA |
| • Linda Broadbelt -- USA | • Fabio Ribeiro -- USA |
| • Charles Campbell -- USA | • Joachim Sauer -- Germany |
| • Atsushi Fukuoka -- Japan | • Philippe Sautet -- France |
| • Bruce Gates -- USA | • Stuart Soled -- USA |
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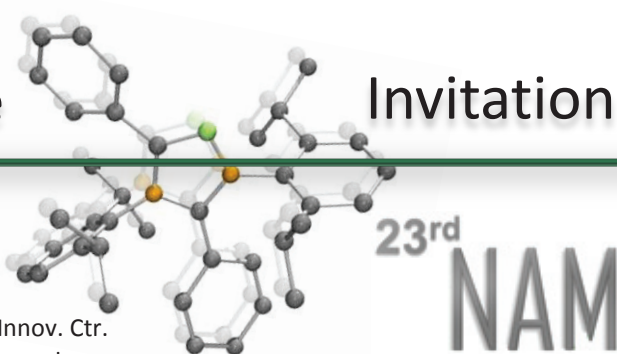
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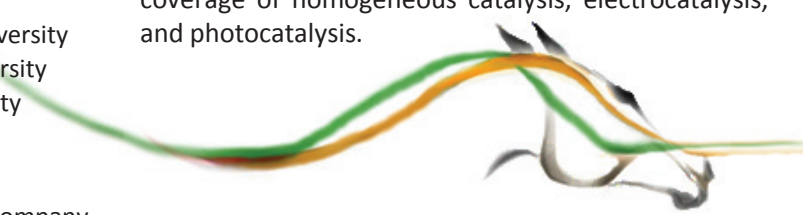
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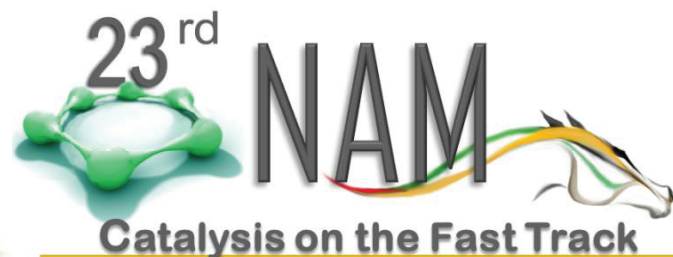
Invitation



We invite you to join us at the 23rd North American Catalysis Society Meeting to be held from June 2-7, 2013 in Louisville, Kentucky at the historic Galt House Hotel. This biennial meeting is widely recognized as the premier topical conference for matters related to heterogeneous catalysis, while also including broad coverage of homogeneous catalysis, electrocatalysis, and photocatalysis.



23rd North American Catalysis Society Meeting



Louisville, Kentucky
June 2-7, 2013

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