

The  
**North American Catalysis Society**



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## NEWSLETTER

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### Professor Matthew Neurock Selected as 2005 Emmett Awardee

The North American Catalysis Society announced that Professor Matthew Neurock has been selected for the 2005 Paul H. Emmett Awardee in Fundamental Catalysis. The award consists of a plaque and a prize. The purpose of the Award is to recognize and encourage individual contributions (under the age of 45) 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.

Professor Neurock's interests include computational heterogeneous catalysis, molecular modeling, and kinetics of complex reaction systems. "Matt is recognized for his pioneering contributions to theoretical methods for the analysis and prediction of catalytic rates and selectivities. Matt has developed and applied theory and atomic-scale simulation in concerted and well-constructed efforts aimed at the elucidation of catalytic reaction mechanisms on metal and oxide surfaces and at understanding and designing active sites as they exist in realistic and complex reaction environments. He and his group have brought ab initio quantum mechanical methods together with kinetic Monte Carlo methods to simulate catalytic performance and the effects of the explicit reaction environment. His studies have brought fundamental insights into the roles of surface structure, crystallite size, surface coverage, alloying, condensed media, and transient intermediates." Others remark that "Matt has been extremely successful at applying quantum chemical methods to a broad range of problems in surface chemistry."

Matt will give a plenary lecture and be recognized at the Spring 2005 North American Catalysis Society meeting in Philadelphia. The Paul H. Emmett Award in Fundamental Catalysis is sponsored by the Davison Chemical Division of W.R. Grace and Company. It is administered by The North American Catalysis Society and is awarded biennially in odd numbered years. More information on this award, the awards process, and previous awardees can be found inside the Awards folder on the NACS home page: [www.nacatsoc.org](http://www.nacatsoc.org)

### 2005 Eugene J. Houdry Award to Henrik Topsøe

The 2005 Eugene J. Houdry Award in Applied Catalysis to Dr. Henrik Topsøe of the Haldor Topsøe Research Laboratories, Lyngby, Denmark. The award is sponsored by Süd-Chemie, Inc., and administered by the North American Catalysis Society. The purpose of the Award is to recognize and encourage 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.

Henrik's work and leadership have made a significant contribution to the understanding of hydrotreating catalysts. Henrik has been an essential contributor to many commercial applications on hydrodesulfurization and other catalysts and one of the principal forces behind the position that Haldor Topsøe A/S holds in commercial deployments in catalysts and processes. "Henrik Topsøe's work provided the concepts and definitive evidence for the CoMoS description of the synergy between MoS<sub>2</sub> structures and Co and Ni promoters." "His passionate efforts to bring state-of-the-art tools and concepts into the solution of complex industrial problems are without equal in the international catalysis community today." With all this Henrik has been a prolific industrial contributor

to the scientific literature. Also, "he has been a key intellectual and physical motivational force behind the emergence of the academic Danish catalysis community."

Henrik will give a plenary lecture and be recognized at the Spring 2005 North American Catalysis Society meeting in Philadelphia. More information on this award, the awards process, and previous awardees can be found inside the Awards folder on the NACS home page: [www.nacatsoc.org](http://www.nacatsoc.org)

## National Awards to E. Iglesia, M. Davis, W. Goodman, I. Wachs, and G. Fisher

Enrique Iglesia has received the 2005 George A. Olah Award in Hydrocarbon Chemistry from the American Chemical Society. It will be presented at the 2005 ACS Meeting in San Diego in March 2005. The award is given to recognize, encourage, and stimulate outstanding research achievements in hydrocarbon or petroleum chemistry. Enrique Iglesia has brought together mechanistic insights into surface reactions with detailed atomic-scale characterization of inorganic solids to design advanced materials for catalytic hydrocarbon conversions.

Mark Davis of Caltech has received the E. V. Murphree Award in Industrial and Engineering Chemistry sponsored by ExxonMobil Research and Engineering Company and ExxonMobil Chemical Company. This award is given to stimulate fundamental research in industrial and engineering chemistry, the development of chemical engineering principles and their application to industrial processes.

D. Wayne Goodman, Texas A&M University will receive the 2005 Gabor A. Somorjai Award for Creative Research in Catalysis sponsored by the Gabor A. and Judith K. Somorjai Endowment Fund. The award is to recognize outstanding theoretical, experimental, or developmental research resulting in the advancement of understanding or application of catalysis.

Israel Wachs of Lehigh University was one of two scientists selected by the ACS Division of Colloid & Surface Chemistry as winners of its 2004 Langmuir Lecture Awards. Israel has worked on the surface science of supported metal oxide catalysts, where an active 2-D surface metal oxide is dispersed on an oxide support substrate. He spoke on solid-vacuum or solid-gas interfaces at the recent Philadelphia ACS meeting in August 2004.

Galen B. Fisher, Principal Research Scientist in the Delphi Research Laboratories, is the 2004 recipient of the Thomas Midgley Award awarded by the Detroit Section of the ACS. Established in 1965, this award recognizes outstanding research contributions in the field of chemistry related to the automotive industry. Dr. Fisher is being recognized for his many contributions to understanding of the surface chemistry of automotive exhaust catalysts and is a highly regarded and active advocate for surface chemistry and its role in industrial catalysis.

## 19<sup>th</sup> North American Catalysis Society Meeting

The 19th North American Catalysis Society Meeting to be held in Philadelphia, Pennsylvania, U.S.A. on May 22-27, 2005. The meeting will be held at the beautiful Wyndham Franklin Plaza Hotel. The North American Catalysis Society (NACS) Meeting is a premier scientific event in the field of catalysis. It is a forum for the discussion of relevant technological issues and state of the art research. Key Dates: September 13, 2004 Abstract Submission Opens; December 15, 2004 Abstract Submission Deadline; February 1, 2005 Notice of Acceptance; March 14, 2005 Deadline for early registration (late registration fee after this date). For complete information including scope, scientific program, Kokes Travel (Student) Awards, on-line registration form, and a list of contacts please visit the web site at [www.19nam.org](http://www.19nam.org).

## National Officer and Director Elections

The national officers of the NACS are elected every four years at the Board of Directors meeting. The national Directors-at-large are elected by mailed, paper ballots to all the membership prior to the Board meeting (every

four years). I have asked Gary McVicker, our Vice-President, who has indicated he will not run for any future role as an officer, to lead a nominations sub-committee to prepare a slate of candidates for the positions available as officers and Directors in addition to those Club Representatives who will sit on the Board of Directors. If a current full member would like to play a more active role in the operations of the national organization they should contact Gary or me before mid-January. -John Armor

## Note Date of 2007 North American Catalysis Society Meeting

Please note on your calendars the date of the 2007 North American Catalysis Society Meeting. It will be in Houston, TX from June 17-22, 2007. Professor Kerry Dooley will be the meeting Chair. More information will follow on the NACS Website.

### Club/Society News

#### ***Southwest Catalysis Society.***

The 2004 SWCS Spring Symposium was held on Friday May 14th, 2004, at the ConocoPhillips Headquarters site in Houston. There was an excellent set of talks covering a wide range of topics. A total of nine presentations were given, three from industry and six from academia. It was a well attended and well received symposium. The corporate sponsors for this meeting are, ConocoPhillips, ExxonMobil Chemical Co., Shell Chemical LP, Sabic Americas, Micromeritics Corp., Sasol North America and Intertek Caleb Brett.

An organizing committee to make detail plans for hosting the **20th North American Meeting (NAM)** of the Catalysis Society Meeting in Houston was formed. It is headed by Brenda Murray, Kerry Dooley, and Yun-feng Chang. An executive planning committee meeting will be scheduled for June to discuss details of meeting venue, fund raise, local host, technical and social program.

#### ***The Catalysis Club of***

***Philadelphia*** announced its 2004-5 meeting schedule: 9/23/2004, Wolfgang Sachtler and Eric Weitz, Northwestern University; 10/21/2004, **Jingguang Chen,** **2004 Catalysis Club of**

#### **Philadelphia Award Winner,**

University of Delaware; 11/17/2004 James Dumesic, University of Wisconsin; 1/20/2005, Harold Kung, Northwestern University, (Student Poster Session); 2/17/2005 Christopher Marshall, Argonne National Laboratory; 3/23/2005, Arthur Chester, Rutgers University; 4/27/2005, Mark Davis, California Institute of Technology.

#### ***The Catalysis Society of Metropolitan New York***

Announces its 2004-5 schedule. September 22, 2004; Prof. Wolfgang Sachtler and Prof. Eric Weitz (Northwestern University); October 20, 2004, Prof. Doug Stephan (University of Windsor); November 17, 2004, Prof. James Dumesic (University of Wisconsin) Co-Sponsored Seminar with Philadelphia Catalysis Club; January 19, 2005, Dr. Konrad Möbus (Degussa Corporation); February 16, 2005, Prof. Jochen Lauterbach (University of Delaware); March 18, 2005, Spring Symposium (Rutgers University) Keynote Speaker: Prof. Roel Prins (ETH Hönggerberg), Invited Speakers: Prof. Jingguang G. Chen (University of Delaware), Prof. Michael P. Doyle (University of Maryland); April 20, 2005, Dr. John Armor (Air Products -

Retired); May 2005, Excellence in Catalysis Lecture.

The New York Society invites you to submit abstracts of papers for oral or poster presentation at the **2005 Spring Symposium.** As a heading of the abstract please list the title, author(s) (underline the speaker) and affiliation. The length of the abstract should not exceed one page, single-spaced. Twenty minutes will be allotted for each oral presentation, followed by a ten-minute discussion period. The deadline for receipt of abstracts is January 28, 2005. You will be notified of consideration for the Symposium by February 15, 2005. Send abstracts to Dr. Bruce Cook, ExxonMobil Research and Engineering Company, 1545 Route 22 East Annandale, NJ 08801 [bruce.r.cook@exxonmobil.com](mailto:bruce.r.cook@exxonmobil.com) The Society is seeking nominations for its twenty-fourth annual "**Award for Excellence in Catalysis.**" The award, sponsored by ExxonMobil Research and Engineering Company, consists of a plaque and a \$1,500 gift. It is granted to an individual or a research team from North America to recognize outstanding contributions in either applied or basic research in either homogeneous or heterogeneous catalysis. Particular effort is made

to identify worthy individuals or teams who have not received sufficient recognition for their work. Nominations are solicited from anyone who is currently, or has been previously, active in the field of catalysis. Nominations previously submitted as well as new ones will remain active for a period of three years. Those wishing to submit a nomination should write a letter of recommendation for the individual nominee or team, including pertinent biographical information and a specific description of the impact of the nominee's achievements in catalysis. The maximum length of the letter should be no more than two pages. It may be accompanied by copies of no more than two items presenting important documentation, such as papers or patents. Send to Bruce Cook (address given above).

#### ***The Pittsburgh/Cleveland***

***Catalysis Society*** held its annual Spring Symposium on June 18. The featured speaker was Wolfgang Ruettinger of Engelhard who discussed catalyst requirements for an emerging hydrogen economy. Awards for the best student papers were presented to (1) Sanjini U. Nanayakkara of Penn State University, (2) Anjanette Koritnik of Carnegie Mellon University, and (3) Zhong Zhou of the University of Pittsburgh. New officers for 2004-05 are: Faiz Pourarian (Carnegie Mellon University), president; Goetz Vesper (University of Pittsburgh), president-elect; Edwin Kugler (West Virginia University), secretary; Margaret Nasta (Carnegie Mellon University), treasurer; and Dady Dadyburjor (West Virginia University), Director. The Society

held its **Fall Symposium** on December 3 at the University of Pittsburgh. Invited speakers were Colin Horwitz (Carnegie Mellon), Goetz Vesper (Pittsburgh), Kurt Rothenberger (NETL-DOE), Greg Jackson (Maryland), Reyimjan Sidik (Case-Western Reserve), and Judith Yang (Pittsburgh).

#### ***The Michigan Catalysis Society.***

Nominations are invited for the 2005 Michigan Catalysis Society **Giuseppe Parravano Memorial Award for Excellence in Catalysis Research**. The Award will be presented at the Twenty-Seventh Annual Spring Symposium of the Michigan Catalysis Society, in May of 2005. The award winner will be invited to present an award address at the meeting. The award is given biennially to an individual from North America to recognize outstanding contributions to catalytic science and technology. The recipient of the award will be selected by a committee that is appointed by the officers of the Michigan Catalysis Society. The award consists of a medal and prize of \$500. The award is sponsored by the Memorial Trust Fund for Professor Giuseppe Parravano and is administered by the Michigan Catalysis Society. An E-mail of intent to nominate would be appreciated by February 1, 2005. Send to Eric Stangland, Michigan Catalysis Society, Vice-President, eestangland@dow.com.

#### ***The Catalysis Club of Chicago***

is soliciting nominations for the **Herman Pines Award** for outstanding research in the field of catalysis. Herman Pines was an

outstanding research scientist, and his work revolutionized the general understanding of organic chemistry, particularly the chemistry of hydrocarbons interacting with strong acids. The award in his honor is sponsored by UOP where Herman began his industrial career in 1930 and amassed 145 US patents over a 23 year period. The award is being co-sponsored by the Catalysis Club of Chicago of which Professor Pines was a founding member. The award will be presented at the 2005 Spring Symposium of the Catalysis Club of Chicago. The recipient will receive a cash award of \$1,000 and reimbursement for travel and lodging as a plenary speaker at the Spring Symposium. Visit the web site for more information:

[www.cmt.anl.gov/CCC/](http://www.cmt.anl.gov/CCC/).

Upcoming Meetings: Dec. 6, Russ Johnson (Honeywell); Jan. 10, Piotr Zelenay (Los Alamos); Feb. 7, TBA; March 7, Frits Dautzenberg (Reaction Design); April 4, Saeed Alerasool (Engelhard); May 18, CCC Spring Symposium. Officers: President, J.W. Adriaan Sachtler (UOP); Vice President, John Regalbutto (University of Illinois - Chicago); Secretary, Mark Kaiser (Honeywell International); Treasurer, Wolfgang Spieker (UOP); Directors, Jeffrey Miller (BP), Mario Castagnola (Argonne National Laboratory), Kenneth Poepelmeier (Northwestern University); NACS Representative, Christopher Marshall (Argonne National Laboratory).

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This Newsletter is a publication of The North American Catalysis Society, President: Dr. John N. Armor, Consultant-GlobalCatalysis.com; Vice President: Dr. Gary McVicker, ExxonMobil; Secretary: Dr. Umit S. Ozkan, Chemical Engineering Dept, Ohio State University, Columbus, Ohio 43210, ozkan.1@osu.edu; Treasurer: Dr. John W. Byrne, Engelhard; Foreign Secretary: Dr.

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