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**AU SOE Alumni
Reception at MS&T'08**
Tuesday, October 7, 2008,
6:30 - 8:00 pm
Westmoreland Central
Westin Convention Center

Center for Advance Ceramics Technology re-designated by NYSTAR

Edward Reinfurt, Executive Director of the New York State Foundation for Science, Technology and Innovation (NYSTAR), announced on July 18, 2008, that Alfred University's Center for Advanced Ceramic Technology (CACT) has been re-designated by NYSTAR as a Center for Advanced Technology (CAT). Re-designation will provide the CACT with approximately \$10 million over the ten year designation period. Also re-designated was the Clarkson University's Center for Advanced Materials Processing (CAMP). The Alfred Ceramics Innovation Center's \$1.8M nanotechnology pilot plant is a joint project of CACT and CAMP, funded in 2007.

"These investments demonstrate our commitment to strengthening the State's innovation economy," said Governor David A. Paterson. "By fostering an environment that encourages technological progress we are giving our institutions and companies the tools needed to strengthen and modernize the economies in Western New York and the North Country as well as the rest of the State."



On a recent visit, Mr. Edward Reinfurt, NYSTAR executive director, examines new microwave processing chamber designed by Gary Del Regno (right), CACT business program coordinator and head of the microwave processing center located in the Alfred Ceramics Innovation Center. Looking on are Steve Arrasmith (left), CACT assistant director, CACT director Dr. Vasantha Amarakoon (center), and Dr. Licio Pennisi (center-right), CACT assistant director.

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Jones to present 2008 McMahon Award Lecture

Thursday, October 16, 2008
11:20 - Holmes Auditorium, Harder Hall

"THE PRACTICE OF ENGINEERING IN THE 21ST CENTURY"

Dr. Linda E. Jones, director and chair of the Picker Engineering Program and the Rosemary Bradford Hewlett '40 Professor of Engineering at Smith College, will present the 2008 John F. McMahon Award Lecture on October 16, 2008 in Holmes auditorium.



L. E. Jones

Her lecture, *The Practice of Engineering In The 21st Century*, will investigate the role of advanced carbon technologies in addressing the 14 "Grand Challenges for Engineering in the 21st Century" recently identified by an international group of leading technological thinkers assembled by the National Academy of Engi-

neering. All 14 Challenges (or opportunities) lie at the interface between recognizing human need and connecting need to resources, solutions and appropriate technologies - to provide access to clean water, restore and improve urban infrastructure, secure cyberspace, manage the nitrogen cycle, make solar energy economical, engineer medicines, develop carbon sequestration, among others. (for a complete discussion go to <http://www.engineeringchallenges.org/cms/challenges.aspx>.)

Jones, an expert in the synthesis, structure development and degradation of structural carbon and carbides used in aerospace and other severe environment applications,

continued on page 4

Inamori School of Engineering Welcomes Sichuan Students

Five students from the Sichuan Province of China, an area badly damaged in a massive earthquake in May, will spend this academic year at the Kazuo Inamori School of Engineering at Alfred University. Representing a diversity of Chinese ethnic groups, they have come to AU as part of a SUNY initiative that will allow them to continue their education and return to help rebuild the local economy and infrastructure in the devastated region. According to the SUNY press release, the goal is to build a team of young leaders based on their common experiences in the US.

The Inamori School of Engineering and the NYS College of Ceramics have a long history of ongoing collabora-

tion with Chinese universities that has involved visiting faculty and graduate student researchers particularly in the areas of ceramic engineering and materials science. Several engineering graduate students will thus be able to act as mentors to the Sichuan group, who will be non-degree students in the engineering program for their exchange year.

"We believe we can offer the students access to an internationally acclaimed program in their chosen field of study in a welcoming environment," said Dr William C. LaCourse, associate



Sichuan students (l-r) Bing Chen, Lai Wei, Xiajun Li, Huanhuan Pan and Yuanxin Zheng at the AU International Student orientation breakfast on August 18, 2008.

provost for Statutory Affairs and unit head of the NYS College of Ceramics.



2008 Samsung Fellows

Educational Fellows (l-r) Minyoung Lee, Jun Beom Park and Jihoon Kim are employees from Samsung Corning Precision Glass Company, Korea, which has been sending its employees to Alfred University's Inamori School of Engineering for several years. All have degrees in various science and engineering disciplines, but have come to Alfred University's Inamori School of Engineering for specialty courses in glass and ceramics.

Ritt reports successful international UROP Experience

Patrick Ritt (Senior, CES) spent his summer at Aachen University, Germany, as part of their UROP International Research Program. (<http://www.rwth-aachen.de/go/id/mpr/>) This program brings international students together with researchers at Aachen University for 10 weeks each summer.

Ritt reports of his experience:

The research opportunity granted to me by RWTH Aachen University was my introduction to Europe ... To put it simply, I was thrown into a situation knowing little about the topic ["Textile Reinforced Concrete: Damage Analysis of yarn reinforcement during tensile test using the acoustic emission analysis", supervised by Dipl.-Ing. Bong-Gu Kang, Institut für Bauforschung (Construction), RWTH Aachen], and, to top it off, I had to

deal with a language barrier. With the aid of a never-too-busy-to-help supervisor and co-workers who would always struggle through their English for me, I leave this 10-week program with valuable practical knowledge on how to conduct tests and perform subsequent failure analysis, as well as with important intercultural working skills.

New projects are posted in October and applications should be submitted by the end of November at <http://www.rwth-aachen.de/go/id/ozy/>. Intensive language support is provided and there



Patrick Ritt (marked by white arrow at rear left) at the closing ceremonies in Aachen.

are no tuition fees; scholarship support to assist in living expenses may also be available although the student must provide for their own transportation.

Talk to Dr. Jim Varner or Petra Visscher to learn more about this amazing opportunity.

Johnson, Ohart discover the USA with "BRAT-2"

Averaging about 63 miles per day, Ashley Johnson and Dan Ohart (both AU ME '08) achieved their goal to traverse the continental United States - a trip of about 5000 miles at a pace "slow enough to appreciate it!"

Departing May 23rd from Yorktown, VA, the pair managed their journey with the help of BRAT-2 trailer, Johnson's award-winning capstone senior

design project in Mechanical Engineering. Their winding route carried the pair through an incredibly scenic route for a trip lasting 75 days, arriving safely on the Pacific coast of Oregon on August 10th.

Ohart reports that Johnson has started work for Lockheed Martin in Owego, NY; his future plans were still uncertain in early September.



Materials Advantage kicks off 2008-09

In 2004, American Society for Materials (ASM) and The Mining, Metals and Materials Society (TMS), and the American Ceramic Society (ACerS) national student chapters combined to form the Materials Advantage, a single low-cost membership that provides students access to the materials science and engineering professional's most preeminent societies. The single low-cost membership includes student membership in all three organizations.



The light rain on September 12, 2008 couldn't dampen the spirits or the BBQ grills for the annual Materials Advantage faculty/student kick-off event! The good food was followed by good fun at the volleyball net.

Senior Stephanie Morris (GSE) will be representing our chapter at the Student Speaking Contest at MS&T'08 on Sunday, October 5, 2008, 1-5pm, Westin Convention Center. Don't miss all the student awards at the combined Student Award Ceremony, Tuesday, October 7th, at 1pm in the David L. Lawrence Convention Center.

Congratulations Alumni!

Vienna '91 and Potter '85 are new 2008 ACerS Fellows

John Vienna is Chief Scientist, Energy and Environment Directorate, at the Pacific Northwest National Laboratory in Richland, Washington.

He received his BS ('91) and MS degrees in Ceramic Engineering from Alfred University and his PhD in Materials Science from Washington State University.



Barrett G. Potter, Jr. is a Professor in the Materials Science and Engineering Department at the University of Arizona in Tucson, AZ.

He earned his BS in Ceramic Engineering from Alfred University in 1985 and went on to obtain his MS (1987) and PhD (1991) degrees at the University of Florida in Materials Science and Engineering.



Student crew keeps CACT summer research on track!

Summer is the most beautiful season in Alfred - a fact most undergrads might miss unless they work here!

Research job opportunities in the Center for Advanced Ceramic Technology (CACT) and through the engineering faculty should not be overlooked. Gary DelRegno, CACT Business Program Director, employed a crew of fourteen this summer - including Jesse Struble, grad students Ed Ordway and Adam Willsey (both MSE), Nate Letts (senior CE), Jaime George (senior BMES), Kameron Chambliss (junior MSE), George Keith (BS GSE 07), Eric Goins (senior MSE), Dan Steere (soph CE),



At left, Struble, Ordway and Letts with the Greenwood Combustion chamber; at right, George, Chambliss, Struble and Willsey gather in front of McMahon Building early in this semester.

Gregory Pilgrim (RIT), Sam Burlingame (senior MSE), Tyler Goldberg (junior CE) and Cheryl Guild (AACS) - working on combustion chamber designs for CACT



Affiliate Greenwood Technologies as well as other projects on campus and at the Ceramics Innovation Center.

CDC to present annual Engineering Career Fair

Powell Campus Center

noon - 3pm

October 2, 2008

Over 40 companies will be represented at the Alfred University Career Development Center's 2008 Engineering Career Fair, October 2, 2008, in the Powell Campus Center. All engineering students, both graduate and undergraduate students of all levels are invited to attend.

Last year, over 300 students enjoyed the event and its opportunities to learn about industry and job opportunities at all levels, from summer employee to career level. Over half the

companies represented in 2007 were looking for candidates for internships and Co-op as well as BS and advanced degree graduates.

After the afternoon Career Fair, there will be an invitation-only networking event from 6:00-7:30pm in Susan Howell Hall for faculty and staff, networking employers, and their invited students. In addition, half of the represented companies will be conducting on-campus interviews the next day.



Contact the CDC's Jill Crandall, cran-dallj@alfred.edu, for more information. Time to polish up your resume!

Engineering and Materials Science Day 2008

October 30, 2008

Alfred University and the Inamori School of Engineering will host the Annual Engineering and Materials Science Day on Thursday, October 30, 2008. Schools are invited to bring a maximum of ten junior and/or senior students to AU to participate in a scholarship opportunity.

Inamori School of Engineering Scholarships will be awarded based on the results of a scholarship exam. First, Second and Third placed students will each receive a 4-year scholarship that can be applied toward tuition in any of our engineering programs at Alfred University (provided certain academic standards are maintained).

- **First place** is \$2,500 per year for 4 years for a total of \$10,000
- **Second place** is \$2,000 per year for 4 years for a total of \$8,000
- **Third place** is \$1,500 per year for 4 years for a total of \$6,000

After the morning exam, students and their chaperones will tour laboratory facilities in the Inamori School of Engineering. Demonstrations will include:

- Scientific Glassblowing and its applications
- Nano-science - photographs in glass
- Modern X-rays and ancient materials

- Picking up the pieces – how to be a glass detective
- Superconductors and Maglev technology
- Thin films for sensors and capacitors
- Speed! – Solid-state motor control

After lunch on campus in AU's Ade Dining Hall, all will reassemble in Roon Lecture Hall where the scholarship winners will be announced.

For more information contact Marlene Wightman, Director of Continuing Education/Outreach, wightman@alfred.edu.

McMahon Lecture

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will explore the need for interdisciplinarity and creativity to meet these challenges. In her lecture, Jones will use examples drawn from the field of carbon science and engineering such as laboratories on a chip using carbon nanoprobes, graphene transistors as the barrier breaker moving us toward terahertz processor speeds, nanoradio, defect controlled activated carbons for water purification (H₂ adsorption) and sequestration technologies, and structural carbons and composites that realize extremely high specific strength and moduli while maintaining integrity at high temperatures.

Jones is a Fellow of the American Ceramic Society. Education Secretary for the ACerS Glass Division, Chair of the Ceramic Bulletin Advisory Board and is the past President of the Ceramic Education Council. Jones has been named the American Carbon Society's Graffin Lecturer and serves on the American Carbon Society's executive board. She is actively involved in the European and Asian Carbon Society. A former member of the Inamori School of Engineering faculty, Jones received 9 Teaching Excellence Awards including the State University of New York Chancellors

Award for Teaching Excellence. In addition, Linda was also recognized by the State of New York as a SUNY Research Scholar in 2004 for her work on high temperature materials.

The annual McMahon Award, named in honor of NYSCC Dean John F. McMahon, recognizes Jones for outstanding achievement in the field of ceramic engineering.

CACT EAB, CANY and WNYACerS to meet October 16

The Center for Advanced Ceramic Technology's Engineering Advisory Board will meet on Thursday, October 16, 2008, prior to the McMahon Award Lecture.

The meeting is scheduled for 9:00 – 11:00 am in the Alfred Ceramic

Innovation Center Board Room. The CACT EAB meets twice a year to review and discuss CACT programs.

Joint meetings of the Western New York Section of the American Ceramic Society and the Ceramic Association of New York will follow the McMahon

Lecture Luncheon.

For more information or lunch reservations, please contact Marlene Wightman, wightman@alfred.edu.

New NanoMaterials Innovation Center

NYS Senator Catherine Young, center, was an honored guest at the August 15, 2008, dedication of the NanoMaterials Innovation Center located in the Alfred Ceramics Innovation Center. Pictured with her are AU President Charles Edmondson, at left, and Mr. John Wilder, Executive Director, Alfred Technology Resources, Inc.



CACT re-designation

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"The commitment being announced today displays the state's confidence in Alfred and Clarkson's CATs and the contribution they will make to build a stronger and brighter economic future for New York State," said Executive Director Reinfurt.

The CACT was created in 1988 and has successfully undergone a lengthy examination of its programs every ten years to qualify for re-designation. Its specialty area of advanced materials processing, an enabling technology for a number of industries, including many based in New York.

CACT was also recently successful in obtaining a Special Development Grant under the competitive Center Development Program to establish the Solid Oxide Fuel Cells Development Group which links AU research faculty in ad-

vanced materials to their counterparts in five New York state industries and with Rensselaer's Center for Future Energy Systems.

"We're pleased NYSTAR and its reviewers recommended re-designation of CACT," said Alfred University President Charles M. Edmondson. "By doing so, they are affirming both the importance of materials-based industries to New York's economy and the quality of the work done by the researchers involved in the CACT."

NYSTAR is charged with helping New York's innovation economy grow by supporting high technological development and commercialization through academic and business partnerships. The goal of NYSTAR's CAT program is to encourage greater collaboration between industry and New York's uni-

versities and to spur technology-based applied research and economic growth in New York.

Specifically, a CAT must help increase New York State companies' competitiveness by solving production, applied research and development, and technical problems.

NYSTAR is a public benefit corporation that helps grow New York's innovation economy with its support of high technology development and commercialization through academic and business partnerships.

Welcome to our new Engineering Faculty!

The Inamori School of Engineering is pleased to introduce new faculty members: (l-r) Dr. Nathan Mellott, Dr. Olivia Graeve and Dr. Tim Wong.

Mellott is an assistant professor of materials science and engineering, coming to our faculty from Guardian Industries where he was a principal scientist in the Liquid Coatings Research group. Mellott received his PhD in Materials from the Pennsylvania State University in 2003 and was an NSF post-doctoral research fellow at the University of Padova (Italy). His research interests include functional coatings, glass corrosion, surface characterization and sol-gel science and technology.

Graeve is an associate professor of materials science and engineering and joins us from the University of Nevada, Reno, where she served as an assistant professor of materials science and engineering since 2002. Graeve received her PhD in Materials Science and Engineering from the University of California, Davis, in 2001. Her research interests are broadly described as

the synthesis and processing of nanostructured materials, including ceramic and metallic nanomaterials.

Wong is a visiting assistant professor of mechanical engineering, joining our faculty from a postdoctoral appointment at Los Alamos National Laboratory in the Engineering

Institute and the Physical Metallurgy Group. His research interests are in the area of modeling wear and surface decomposition with particular application in machining.



In Memoriam: Dr. Steve Mayes and Dr. Ronald S. Gordon

Dr. Steve Mayes, associate professor of mechanical engineering, died June 18, 2008, at his home in Alfred. He had battled cancer for several years.



Mayes joined the Inamori School of Engineering faculty in 2000. His love of teaching was clear to his students and faculty colleagues; his love of family, neighbors and living life assured Mayes many friends in Alfred and beyond.

A 2007 recipient of the Joseph Kruson Award for Excellence in Teaching, Mayes returned to the active faculty in Spring '08 after recovering from his last round of chemo.

"Steve was an outstanding engineer and faculty member, who maintained high standards and expected his students to meet those standards," said Dr. Alastair Cormack, dean of the Inamori School of Engineering. "They inevitably did. Steve's contributions to the School of Engineering and the University were numerous and diverse; he will be sorely missed. Other faculty will come along and be outstanding in their own right, but they will not replace him. It's amazing how he managed to keep his spirits so high, right until the very end, but that was the essence of Steve's personality."

Mayes studied mechanical engineering and business administration at Old Dominion College, and earned an MS in structural engineering at George Washington University. He

completed his PhD in mechanical engineering at the University of Wyoming in 1999.

Mayes had a successful career as an engineer, working for 18 years in government research. He was part of the research team at NASA's Langley Research Center in Hampton, VA, and then at the Navy's David Taylor Research Center in Bethesda, MD, before coming to AU. He was a recognized expert in composite materials design and fabrication and published over 40 technical articles.

Mayes loved the outdoors, especially his ancestral farm in West Virginia's Monongahela National Forest, which he visited several times a year. An avid outdoor sportsman, he enjoyed skiing, sailing, bicycling, backpacking, and camping. He was a member of the University Union Church, where he held a position as trustee. Mayes will be remembered for his "relentless pursuit of a good life" and his devotion to his family and friends.

Dr. Ronald S. Gordon, dean emeritus of the School of Ceramic Engineering and Materials Science, died after a 2-year battle with esophageal cancer on August 31, 2008. Dean Gordon served AU from the Fall of 1999 until his retirement in 2004.

Prior to his arrival at the College of Ceramics, Gordon had served as department



Head and Professor of Materials Science and Engineering in the College of Engineering at the Virginia Polytechnic Institute and State University. He also served as the Director of the Center for Advanced Ceramic Materials, a Technology Development Center of Virginia's Center for Innovative Technology (CIT). Prior to Virginia Tech, Dr. Gordon was a Professor of Materials Science and Engineering at the University of Utah and Director of the State of Utah Center of Excellence for Advanced Materials. He was a co-founder (1977) of Ceramatec, Inc.

Gordon received his BS and MS degrees from the University of California (Berkeley) in Chemical Engineering and Ceramic Engineering, respectively, in 1959 and 1961. He received a ScD. degree in Ceramics from Massachusetts Institute of Technology in 1964. Gordon was a Fellow of the American Ceramic Society and past Chairman of the Basic Science Division and served on numerous government and professional committees and panels.

Memorial contributions may be made either to the Lance Armstrong Foundation Endowment (www.livestrong.org), the Moffitt Cancer Center Foundation, Tampa, FL (www.moffitt.org), or to The Ronald S. Gordon Endowed Undergraduate Scholarship in Materials Science and Engineering at Virginia Tech (contact the Office of University Development, Virginia Tech, (540) 231-2801).



Solid State Ionics update

17th International Conference on Solid State Ionics (SSI - 17)

June 28 - July 3, 2009

Fairmont Royal York Hotel, Toronto, Canada

The 17th International Conference on Solid State Ionics is calling for your submission to this important event! Submission of Abstracts began September 15, 2008 via the conference website, <http://www.ssi-17.net>, where a complete call for papers has been posted. Submissions will be accepted until January 30, 2009.

The program will be structured around the applications of solid state ionics: polymer fuel cells, high temperature fuel cells and batteries (aqueous, lithium, HT), and sensors. Within each of these themes will be papers discussing the following typical subjects: fundamentals, modeling and simulation, measurement techniques, ionic diffusion and conduction, mixed conductors, novel materials, and interfacial effects.

Manuscripts may be submitted for publication in a special volume of the Journal Solid State Ionics (SSI). All manuscripts will be refereed according to the usual standards of Solid State Ionics. Only those papers actually presented will be included in the proceedings.

There will be a number of special symposia: The Huggins Symposium in honor of Robert Huggins' 80th Birthday;

The Dokiya Symposium, featuring Dokiya scholarship young scientist winners, and the SFB 458 Colloquium.

Plenary Lectures will be given by Professor John Kilner (BCH Steele Professor of Energy Materials, Department of Materials, Imperial College, London); Professor Joachim Maier (Director, Max Planck Institute for Solid State Research, Physical Chemistry Department, Stuttgart, Germany); Professor Linda F. Nazar (University of Waterloo, Department of Chemistry, Waterloo, Ontario, Canada); Professor Constantinos G. Vayenas (University of Patras, Department of Chemical Engineering, Patras, Greece); and Professor Horoyuki Ohno (Institute of Symbiotic Science and Technology, Tokyo University of Agriculture and Technology, Tokyo, Japan).

In addition to the technical program, pre-conference workshops are being added for Sunday, June 28, and on Wednesday afternoon and evening conferences and their guests will be able to take advantage of a bus trip to Niagara Falls which will include a boat tour of the Falls on the "Maid of the Mist", a winery tour and dinner. Pre-registration will be necessary for this tour - watch the website for further details of both workshop and social programs!

SSI-17 will have available 6 Dokiya student travel awards worth \$600 each, through the co-sponsorship of SSI-17 by the High Temperature Materials Division of the Electrochemical Society. More information on sponsorship or application for travel awards is now available on the conference web site (<http://www.ssi-17.net>). SSI-17 has also been given the endorsement of the American Ceramic Society.

The SSI conferences, held every two years, promote international collaboration and cooperation and provides a forum for scientists and engineers to discuss fundamentals, innovations and applications in the field of ion transport in solids.

Dr. Alastair N. Cormack, Dean of the Inamori School of Engineering, is the conference co-chair (with Dr. Klaus Funke, Universität Münster) of SSI-17. Additional information can be obtained from **Marlene Wightman**, Director of Continuing Education and Outreach, wightman@alfred.edu.



International conference draws over 400

Dr. Jinghong Fan, professor of mechanical engineering, was one of the distinguished organizers of the 2nd International Conference on Heterogeneous Materials Mechanics (ICHMM-2008), held June 3-8, 2008, in Huangshan, China.

ICHMM topics delved into the most complex aspects of materials such as stochasticity of microstructures, multiphysics and multiscale modeling with widely disparate theories, in situ experiments and model validation, non-equilibrium evolutionary processes, and nonlocal effects in real materials.

The more than 400 attendees represented 19 countries and 18 of the United States. Registration and travel arrangements for over 100 non-Chinese attendees were coordinated by Marlene Wightman, Director of Continuing Education/Outreach.



Faculty News

Dr. Doreen Edwards, professor of materials science and engineering, presented an invited lecture entitled "Polyanionic transport in trivalent-cation tungstates" at the recent Gordon Conference on Solid State Studies in Ceramics - Issues in Grain Boundary Transport: Role of Boundary Chemistry & Structure (August 10-15, 2008, Proctor Academy, Andover, NH.). Edwards and her research students Jae-Il Jung and Jake Amoroso were also contributors of two posters.

Dr. Scott Misture, Inamori Professor of materials science and engineering, an organizer of the annual Denver X-ray



D.D. Edwards



S. T. Misture

Conference since 2002, organized a workshop on Non-ambient Diffraction at the August 4-8, 2008, conference. The workshop was presented by Misture and his colleagues Dr. E.A. Payzant (Oak Ridge National Laboratory), Dr. S. J. Skinner (Imperial College London, London), and Dr. C. Resch (Anton Paar GmbH, Graz, Austria).

Misture also presented an invited lecture "Charge Flipping Approach to Inorganic Structures from Powder Data" at the May 31-June 5, 2008, meeting of the American Crystallographic Association (Knoxville, TN).

Earlier this year, Misture was host to Visiting Professor **Dr. Jae Chun Lee**, professor of ceramic processing and materials design, Myongji University, Yongin, Korea. Dr. Lee was in residence with his family from January until August 2008. While Lee has done extensive work at Myongji on sealing glasses for SOFCs, he shifted towards the issues related to Cr poisoning for his work at AU. A series of 5 publications is in preparation, along with talks at the MS&T'08 and Cocoa Beach (January 18-23, 2009, Daytona Beach, FL) meetings.



Dr. Jae Chun Lee

Inamori School of Engineering at MS&T'08

Pittsburgh, PA, October 5 - 9, 2008

Sunday, October 5

Poster Session - Ballroom
Foyer, 3rd Floor
6:00-8:00 PM

Chromium Incorporation into Sofc Cathode Materials and Effects on Electrical Properties

B. Jiang*, S. Chao,
J. Jung, D. D. Edwards,
S. T. Mixture.

Alumina Dissolution Rate into Glasses that Mimic Grain Boundary Chemistry

K. J. DeCarlo*, T. F. Lam,
B. Ponack, K. Strong,
W. Carty.



D.D. Edwards



S. T. Mixture



W. Carty

Monday October 6

ACerS 110th Anniversary Session
Room: 404/405 - Session Chair:
L. David Pye

10:20 AM

The Eleven Best Papers in 110 Years

S. K. Sundaram*, Pacific Northwest National Laboratory; L. D. Pye;
J. A. Kaniuk, Zircoa, Inc.;
K. T. Faber, Northwestern University;
S. Steen, M. Mecklenborg, ACerS



L. D. Pye

Characterization Techniques

Room: 327

4:40 PM

Visible Light Sensitization of Lanthanide Containing Aurivillius Phases Via Bi 3+ Substitution

E. J. Nichols*, S. T. Mixture.

Recent Advances in Structural Characterization of Materials X-Ray and Neutron Diffraction: Developments and Applications I

Room: 309

9:40 AM

High Temperature Atmosphere Controlled X-Ray Diffraction

S. Mixture*. (Invited)

Tuesday, October 7

Novel Fuel Cell Systems: Materials, Operation and Applications
Room: 325

9:20 AM

Microstructurally Engineered Composite Materials for SOFC Electrolyte Applications

A. G. Willsey*,
V.W. Amarakoon,
G. E. DelRegno.



V. Amarakoon



A. M. Meier

4:00 PM

Oxidation Kinetics of Manganese Cobaltite Spinel Protection Layers Performance on Sanergy HT for SOFC Interconnect Applications

E. Alvarez*, A. M. Meier; K. Weil;
Z. Yang, Pacific Northwest National Lab.

Defects and Transport in Ceramics I

Room: 307

2:00 PM

Dopant-Vacancy Clustering in Zirconia and Ceria

A. N. Cormack*, B. Wang.
(Invited)



A. N. Cormack

2:40 PM

Thermopower Measurements and Defect Chemistry of $Ba_{0.5}Sr_{0.5-x}Co_xFe_{1-x}O_{3-\delta}$ ($x = 0, 0.2, 0.4, 0.6, 0.8$ and 1.0)

J. Jung*, S. T. Mixture,
D. D. Edwards.

Combustion Synthesis/Reaction Forming

Room: 336

3:40 PM

Nanoporous Glass-Ceramic Membranes

M. E. Miller, S. T. Mixture*.

Wednesday, October 8, 2008

Defects and Transport in Ceramics II
Room: 307 - Session Chairs: Doreen Edwards; Stefan Adams, National University of Singapore

10:40 AM

Impedance and Phase Stability Studies on the 1-Dimensional Conductor $A_xGa_{4+x}Ti_{1-x}O_8$ (AGTO) ($x \sim 0.7$, $A = Na^+, K^+, Li^+, Ag^+, H^+$)

J.W. Amoroso*, D. D. Edwards.

Novel Nanoparticle Processing
Room: 408

5:00 PM

Synthesis of Nanostructured LaB6 Powders for Micro- and Nanosatellite Propulsion Applications

O. A. Graeve*,
R. Kanakala,
G. Rojas-George, University of Nevada, Reno



O. A. Graeve

Thursday, October 9

Nano-Enabled Devices I

Room: 408

9:20 AM

Development of Nanoscale Magneto-Rheological (nMR) Suspensions: Effect of Particle Size on Flow and Thermal Characteristics through Microchannels

K. Sinha*, University of Nevada Reno; B. Kavlicoglu, Y. Liu, Advanced Materials and Devices Inc.; O. A. Graeve.

* indicates presenting author

AU Engineering News is a print version of our on-line newsletter, published four times a year. For complete news and updates, go to <http://engineering.alfred.edu/newsletter>

The AU Engineering News is edited by Dr. Anna E. McHale. Questions or comments about our newsletter can be sent to her at soeenews@alfred.edu.

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