

July 2012
Monthly Update for the Green Chemistry in Education Network
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Dear Members of the Green Chemistry Community,

Thank you for your submissions. Please remember to send me your position announcements so that we can post them on the Green Chemistry Education Network website (<http://www.gcednet.org>).

You can invite others to join this list by forwarding this email with the following instructions: To subscribe, please send an email request to jhaack@uoregon.edu with the subject heading "subscribe green chemistry." As always, please let me know if you would like to be removed from the list.

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News

DEQ Nominations for Michigan Green Chemistry Governor's Awards – Due July 20, 2012

The Governor's Awards recognize advances that incorporate the principles of green chemistry into chemical design, manufacture, or use, or that promote activities which support or implement those

technologies and efforts. Awards are open to individuals, groups, and organizations, both non-profit and for profit. The program was established by the Michigan Green Chemistry Roundtable, and it celebrates innovations using green chemistry in Michigan. Eleven awards have been presented in the first three years of the program.

Entries must be sent no later than July 20. The awards will be presented at the 2012 Michigan Green Chemistry and Engineering Conference: "Driving Sustainable Manufacturing," which is scheduled Oct. 26 at Wayne State University. For a copy of the nomination packet, or more information on the Michigan Green Chemistry Program, visit the DEQ Web site at <http://www.michigan.gov/greenchemistry>, or call the DEQ Environmental Assistance Center at 800-662-9278.

Spotlight on Education - Iraj B. Nejad (Mt. San Antonio College, Walnut, CA)

As we often see in the green chemistry community, it is the integration of many points of inspiration that move mountains. I recently spoke with Professor Iraj Nejad about his efforts to integrate green chemistry at Mt. San Antonio College located in Walnut, CA.

After attending the Green Chemistry in Education Workshop in Oregon and a summer visit to Tom Goodwin's lab at Hendrix College in Arkansas, Professor Nejad took a year-long sabbatical to develop a green organic laboratory curriculum for their program.

What started out as a "modest" goal of integrating 8-10 green labs into their curriculum ended up being an effort to integrate 18-19 green labs from sources like GEMs, Tom Goodwin's lab and the Journal of Chemical Education. In addition, Professor Nejad developed several computational labs (using the Spartan modeling package) to accompany the new curriculum and put together three handouts entitled "Introduction to Green Chemistry," "Introduction to IR Spectroscopy" and "Introduction to 1D and 2D H and C-NMR Spectroscopy." These handouts are meant to serve as a first point of reference by students. The new labs span the entire year of organic laboratory. Please feel free to contact Iraj Nejad <INEjad@mtsac.edu> if you are interested in any of these materials.

The results have been tremendous. In addition to reducing liquid waste from a total of 6 gallons/semester to a half gallon/semester the green wave is spreading to other community colleges in the Los Angeles area. Professor Nejad is enthusiastically consulting and collaborating with other institutions to integrate green chemistry labs into their programs.

Spotlight on International Education - Mageswary Karpudewan (School of Educational Studies, Universiti Sains Malaysia)

Dr. Mageswary Karpudewan, through a sustained effort since 2006, has successfully transformed chemistry education for pre-service teachers at the School of Educational Studies, Universiti Sains Malaysia (USM). Her work in designing, implementing and assessing this innovative curriculum is engaging a new generation of educators and their students in using green chemistry as a tool for sustainable development.

Dr. Karpudewan's work in this area has culminated in the development of a compulsory course for pre-service teachers in the School of Educational Studies, USM and a laboratory manual for secondary

school science and chemistry students.

Mageswary has cultivated and continues to work with an international network of green chemistry educators. Her participation in the University of Oregon's Green Chemistry in Education Workshop during the summer of 2008 and her attendance at the American Chemical Society's Green Chemistry and Engineering Workshop that same summer catalyzed her ability to contribute to thought leaders in the area of green chemistry education.

Her future work focuses on developing materials to facilitate the training of science/chemistry pre-service and in-service teachers and greening secondary school chemistry curricula. She is happy to share her materials and she can be reached by email at: mageswary_karpudewan@yahoo.com

Labs needed for Advanced General Chemistry Course

Chemistry faculty at the University of Puget Sound are looking for labs and lecture modules suitable for a green chemistry-themed, advanced General Chemistry course for chemistry and biochemistry majors, to be taught Fall 2012. If you are interested in sharing any such material, please contact Steven Neshyba directly, nesh@pugetsound.edu.

New Network Launched- Bio-Waste Industrial Symbiosis Network

A new network dedicated to the valorisation of bio-wastes including agro- and food production wastes "Bio-waste Industrial Symbiosis" (<http://www.york.ac.uk/res/sustoil//bis.html>) was launched at CleanTech 2012 in Santa Clara, CA, this June <<http://www.techconnectworld.com/Cleantech2012>>. For more information contact Lucie Pfaltzgraff, lap503@york.ac.uk or Louise Summerton, louise.summerton@york.ac.uk.

Fall Workshops and Education Meetings

Minnesota Green Chemistry Forum - Green Chemistry Curriculum Workshop - Friday September 21, 2012

This workshop will introduce the Minnesota Green Chemistry Forum and curriculum grant recipients will discuss progress on their grant projects, including topics like

- Successes experienced
- Challenges faced
- Plans for integration

Presentations will be webcast so you can watch and listen if available and interested. The link will be provided later.

Date: Friday, September 21

Time: 10:00 am to noon Central time

Media services: Webcast services will be provided. I will be sending a link for access. You may want to share it with your colleagues and students.

Place: MPCA, Lower Level – Board Room
520 Lafayette Road North.
St Paul, MN 55155

Speakers

- Brian Gute, U of MN Duluth – Green Chemistry Initiative
- James Wollack, University of St Catherine – Green Chemistry Metrics for Choosing a Reaction – Incorporation of Independent Green Chemistry Student Assessments in Organic Chemistry Lab and an Introduction to Green Chemistry in General Chemistry Labs
- Jane Wissinger, U of MN Twin Cities – A Renewable Resource Polymer Experiment for the Undergraduate Organic Chemistry Laboratory
- Jeanne Franz and Dr. Grami, Winona State University – Biodegradable Polymers in the Chemistry and Engineering Curriculum – An Application of the Principles of Green Chemistry and Engineering

For more information please contact Phyllis Strong, Pollution Prevention Coordinator, Minnesota Pollution Control Agency
Phone: 651/757-2763
Email: phyllis.strong@state.mn.us

Open Positions

Full Professor in Clean Technology- Flinders University in Adelaide, Australia

Flinders University in Adelaide, Australia, invites applications from outstanding candidates to the position of South Australian Premier's Professorial Research Fellow (Full Professor position) in Clean Technology. The successful candidate will have the opportunity to shape cutting edge Clean Technology developments in South Australia and beyond. The appointment of an internationally leading researcher in an area related to Clean Technology will enhance and further South Australia's position as a global leader in the development and use of sustainable technology.

The appointee will provide research leadership at Flinders University and in South Australia to foster innovative, globally applicable solutions to a variety of sustainability issues. The successful applicant will develop a successful research program in the area of Chemistry and Clean Technology, and collaborate with existing groups within the School/Faculty and with industry.

This fellowship is supported by the South Australian government for a term of four years, and will revert to a substantive continuing position as a Full Professor in the School of Chemical and Physical Sciences after this.

For further information please contact Dr Kathrin Soehnel, Principal Consultant
kathrin.soehnel@academic-search.net

Conferences/Events

July 21-22, 2012 (Lucca (Barga), Italy)

Gordon Research Seminar-Green Chemistry

Website: http://www.grc.org/programs.aspx?year=2012&program=grs_green

We are excited to announce that we have secured a Graduate Research Seminar that will take place on the Saturday/Sunday (21st/22nd July) prior to the main conference. Dr. Paul Anastas, assistant administrator of US EPA's Office of Research and Development, and Prof. Martyn Poliakoff, University of Nottingham will keynote the GRS which will also feature talks by the graduate student and postdoctoral associate participants. We hope that many of this next generation of green chemists will stay to attend the Green Chemistry GRC the following week.

July 22-27, 2012 (Lucca (Barga), Italy)

Gordon Research Conference on Green Chemistry

Website: <http://www.grc.org/programs.aspx?year=2012&program=greenchem>

The 2012 "Olympic" Gordon Research Conference on Green Chemistry will take place in Italy at the fabulous Il Ciocco Hotel and Resort, beginning on July 22, 2012 and finishing on the day the London Olympics will start, July 27, 2012. We are looking forward to an exciting meeting that will explore the recent advances and current frontiers of green chemistry and sustainability. During this conference, sessions will be focused on designing greener chemicals, greener approaches to organic synthesis, catalysis and biocatalysis, polymers and materials, bio-inspired materials, energy and fuels, and assessing our progress toward a sustainable future. We aim to bring together an outstanding and diverse group of scientists at the forefront of Green Chemistry research.

July 29-August 2, 2012 (University Park, PA)

22nd Biennial Conference on Chemical Education

Website: <http://www.2012bcce.com/>

"Green Chemistry in Classroom and Laboratory" symposium at the 22nd Biennial Conference on Chemical Education at Pennsylvania State University, University Park, PA. This conference will take place between July 29th - August 2nd 2012 <<http://www.2012bcce.com/>>. The symposium is being co-organized by Andy Dicks (University of Toronto) and Sue Sutheimer. Anyone interested in submitting an abstract for the symposium can do so at <http://introchem.chem.okstate.edu/conference/program.php?id=5>. A description of the symposium follows:

"This symposium will examine new classroom teaching modules, learning methods and educational research, as well as laboratory experiments and experiences having their roots in the Twelve Principles of Green Chemistry. The focus will be on tools developed for "non-organic" courses - i.e. those in general, inorganic, physical, analytical and biochemistry. It is geared towards faculty who have designed green chemistry materials to educate undergraduates at community colleges, four year colleges and graduate institutions".

A second symposium organized by Loyd Bastin (Widener University) is titled Green Chemistry in the Organic Chemistry Curriculum and, as its name implies, is focused on organic chemistry. A description follows:

"This symposium will highlight the incorporation of green and sustainable chemistry into the organic chemistry curriculum. Topics of particular interest include the incorporation of green/sustainable chemistry into sophomore organic chemistry lecture and laboratory courses, the design of organic chemistry laboratory experiments that incorporate green chemistry principles, the incorporation of green/sustainable chemistry into upper level organic chemistry courses, and the design of programs that integrate green/sustainable chemistry across the chemistry curriculum."

August 25-29, 2012 (Foz do Iguaçu/PR Brazil)
4th International IUPAC Conference on Green Chemistry
Website: <http://www.ufscar.br/icgc4>

New - September 10-11, 2012 (Brussels, Belgium)

Global Chemical Industry Sustainability Summit (GCIS)
Website: <http://chemroundtables.com/>

The Global Chemical Industry Sustainability Summit (GCIS) will bring together chemical industry executives with attendees from the financial sector, representatives from major end-use industries, and the regulators and retailers who influence the whole chemical value chain. GCIS is must-attend for anyone with "sustainability" or "environment, health and safety" management responsibility within the chemical industry. It will also benefit executives from all the departments within chemical company whose jobs are influenced by corporate sustainability and CSR policies, from feedstock sourcing, planning, financial, R&D, compliance and marketing.

New - September 30 – October 5, 2012 (Columbus, Ohio, USA)

4th International Ecosummit: Ecological Sustainability, Restoring the planet's ecosystem services
Website: <http://www.ecosummit2012.org/index.htm>

The international ecosummit will explore innovative science-based strategies that are socially and culturally acceptable to create, manage, and restore these ecosystems, ensuring that society has access to all these ecosystem services. "Our aim is to provide a high-profile platform for dialogue among researchers, planners and decision-makers to develop a better understanding of the complex nature of ecological systems and the means to protect and enhance their services."

New - October 8-10, 2012 (Boppard, Germany)

Green Solvents for Synthesis
Website: <http://events.dechema.de/events/en/gsf2012.html>

"Green Solvents - Advanced Concepts for Solution Phase Chemistry and Processes" is the 2012 event of the biennial conference series "Green Solvents" that has been established in the last decade as an important international forum for the scientific exchange on concepts for the substitution of potentially

hazardous volatile organic compounds in solution phase synthesis.

This year's scientific program features the traditional Sunday evening lecture, keynote lectures by renowned experts in the field and submitted oral presentations focusing on energy-efficient processes, selectivity control for waste prevention, alternative and efficient use of raw materials, activation and capture of CO₂ and integrated reaction and separation processes. An additional highlight is the poster session which will give you the opportunity for gripping discussions on cutting-edge research results.

New – October 26, 2012 (Detroit, Michigan)

2012 Michigan Green Chemistry and Engineering Conference: Driving Sustainable Manufacturing

Website: <http://migreenchemistry.org/spotlight-on-michigan/michigan-green-chemistry-engineering-conferences/#greenUp%202012>

The 2012 GreenUp Conference and 4th Annual Michigan Green Chemistry Governor's Awards Ceremony will take place in Detroit – a city fueled by innovation and ripe with opportunities for driving sustainable manufacturing through green chemistry and engineering.

A revitalization of manufacturing is occurring nation-wide. Green chemistry and engineering is contributing to this revitalization by employing less toxic materials and processes in the manufacture and design of the products we use every day. Michigan is positioned to lead this effort and accelerate innovation through catalytic collaborations between our top-notch research universities, chemical companies, experienced designers and engineers, advanced manufacturers, and supply chain.

For researchers, chemists, engineers, industry CEOs, students, educators, entrepreneurs, decision makers, policymakers – anyone interested in Michigan's march toward smart, sustainable growth – this conference is the opportunity to hear from leading experts and share innovative ideas on how we can best "green up" Michigan and drive sustainable manufacturing through green chemistry and engineering!

New - June 6-7, 2013 (Brussels, Belgium)

European Sustainable Chemistry Conference

Website: http://www.si-europe.com/conferences/european_sustainable_chemistry_conference_2013/

A number of leading chemical companies in the world have made a commitment to become sustainable enterprises, and have launched proactive programs to improve the environmental and social performance of their products, processes, services, and facilities. However, one of the key challenges faced by these industries is how to track their progress towards sustainability and communicate it to both employees and other important stakeholders. Further, with the understanding within the industry that resources are becoming even scarcer, companies have to realize that embracing renewable sources of energy and raw materials will no longer be a matter of choice.

European Sustainable Chemistry Conference 2013 understands all these growing needs and wants to bring together the various members of the sustainability research and analytics community and the corporate practitioners responsible for measuring, evaluating and reporting sustainability information and those leading successful strategies that have helped companies head towards more sustainable processes.

Green Chemistry News and Information

The Green Chemistry & Commerce Council Quarterly e-Newsletter (April 2012)

URL: <http://greenchemistryandcommerce.org/newsletters.php>

A publication of the Lowell Center for Sustainable Production at the University of Massachusetts Lowell. Each issue of the newsletter provides current information about upcoming and ongoing GC3 activities, and news about green chemistry and design for environment.

News from ACS GCI: Nexus Newsletter (May/June 2012 Issue)

URL: <http://archive.constantcontact.com/fs002/1102168764845/archive/1110008672584.html>

The Nexus Newsletter is a bi-monthly newsletter. Dedicated to our readers, the Nexus newsletter is designed to connect the global green chemistry community, share information and support the ACS Green

Advancing Green Chemistry

URL: <http://advancinggreenchemistry.org/>

Our mission is to promote the development and adoption of Green Chemistry. Green Chemistry is the scientific foundation of greener products, a sustainable economy, and healthier people. AGC's role is to strengthen and promote the science and its practitioners, to link to strategic partners, and to highlight emerging opportunities for stakeholders. In short, AGC seeks to tip the balance in favor of broad support for – and wide adoption of – Green Chemistry.

Berkeley Center for Green Chemistry Newsletter

URL: <http://bcgc.berkeley.edu/bcgc-newsletter>

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