

November 2014

Berkeley Center for Green Chemistry Newsletter

New graduate seminar on designing sustainable materials

Professors Alastair Iles and Christine Rosen are launching a new course this spring, ESPM 290 (CCN: 30299) / MBA 296.3, *Graduate Seminar on Designing Sustainable Materials and Products: Problem Solving for Society and the Environment*. Students will explore the challenges and ethical conundrums of changing a deeply entrenched and complex production system. Using 11 brand new cases developed for this course, including electric cars and flame retardants, the class will look at the basic concepts of green design, ethical reasoning, and several important processes for changing the system. The course will be a highly interactive, often student-led "brainstorming" process of how to transform our materials production and use system. Students will form interdisciplinary teams to investigate specific problems of changing the system. The class will meet 3-6 pm Wednesdays in the new active learning classroom in 118 Barrows Hall. For questions, contact [Alastair Iles](#) or [Christine Rosen](#).

Greener Solutions Presentations on December 8th and 10th

In this fall's Greener Solutions course, two interdisciplinary teams of UC Berkeley graduate students have been investigating safer alternatives for preservatives and safer methods of designing spray polyurethane foam insulation. They will present their findings in two events at the end of the semester: an evening poster session hosted by BizNGO at the Presidio Officer's Club on Monday night, December 8th and on the Berkeley campus during the morning of December 10th, 2014. To attend one of the presentations, or for details on time and location, [email Megan Schwarzman](#).

Presidential Green Chemistry Awards announced

The EPA-sponsored Presidential Green Chemistry Challenge Awards recognize cutting-edge Green Chemistry technologies that are helping to solve some of our most pressing environmental problems, including climate change, water availability, and hazardous waste while improving the bottom line for American manufacturing. This year's innovations include developing renewable fuel that may create 82% less GHGs than petroleum diesel, making life-like color LED TVs using 40,000 gallons less of toxics per year, creating a better firefighting foam without toxic chemicals, using oxygen instead of hazardous chemicals in a key step of pharmaceutical production, and making vegetable oil from microalgae to replace petroleum in industrial chemicals. For more information about these innovations, visit [the awards website at epa.gov](#).

National Academy of Sciences releases chemical alternatives report

[A new report](#) from the National Research Council describes a decision framework for comparing chemicals in terms of human health and ecological risks. It allows the evaluation of the full range of benefits and shortcomings of substitutes, and examination of tradeoffs between these risks and factors such as product functionality, product efficacy, process safety, and resource use. Through case studies, this report demonstrates how different users in contrasting decision contexts with diverse priorities can apply the framework and will be useful to the chemical industry, environmentalists, ecologists, as well as state and local governments. [Read their official press release here.](#)

Undergraduate Research Opportunity: Modular Roofing

The Berkeley Center for Green Chemistry is seeking an undergraduate student to design and test greener, safer materials for use as low-cost roofing in India and throughout the developing world. This research is a partnership with the startup company [ReMaterials](#), who offer a modular roofing solution made from waste materials. This researcher will work in the laboratory making and testing sample composite panels and will partner with a postdoctoral fellow to develop an understanding of what properties are necessary to enhance waterproofing, mold resistance, and overall durability of composites made from waste. The student will receive Chemistry research credit (10-15 hours per week, 2-3 credits) for Spring 2015, with the intention that this position will continue as a research assistantship for ~20 hours per week in Summer 2015. For more information or to sign up, [email Heather Buckley](#).

Webinar on the OECD Substitution and Alternatives Toolbox

A webinar on “*The Organisation for Economic Cooperation and Development (OECD) Substitution and Alternatives Assessment Toolbox*” will be hosted by the National Pollution Prevention Roundtable and Jonathan Rivin of the University of Wisconsin-Stevens Point Solid and Hazardous Waste Education Center on November 19 at 11 AM. This webinar will be an introduction to the OECD Substitution and Alternatives Assessment Toolbox, a website that contains a variety of resources to support decision-making for assessing alternatives to hazardous chemicals. Its searchable inventory of assessment tools and complimentary resources for understanding substitution strategies and conducting alternatives assessments will help serve to better evaluate the relative safety of chemicals and select substitutes with lower hazardous impact potential. [Register today at gotoweinar.](#)

Join the Safer Chemistry Challenge Program

The National Pollution Prevention Roundtable invites companies to join the 2025 Safer Chemistry Challenge Program (SCCP). This voluntary initiative aims to motivate, challenge, and assist businesses in reducing their use of chemicals of concern to human health and the environment. The SCCP will also recognize and reward companies for finding safer alternatives to the hazardous chemicals they currently use. Questions can be directed to saferchemistry@gmail.com or [Cindy McComas](#). For information on how to become a member of the Safer Chemistry Challenge program [visit their website](#).

NY Times runs opinion piece on chemicals of concern and regulation

Rolf Haden, director of the Center for Environmental Security at Arizona State and Robert Lawrence, director of the Center for a Livable Future at the Bloomberg School of Public Health have published [an op-ed in the New York Times](#) on green chemistry and the need for manufacturing and regulatory reform of certain hazardous chemicals. [Read it here.](#)

New Journal of Sustainable Metallurgy calls for papers

The *Journal of Sustainable Metallurgy* is a new quarterly journal now accepting papers for publication in 2015. The new journal's leadership includes [Julie Schoenung](#), a long time Green Chemistry pioneer at UC Davis. The journal is dedicated to presenting metallurgical processes and related research aimed at improving the sustainability of metal-producing industries, with a particular emphasis on materials recovery, reuse, and recycling. Its editorial scope encompasses new techniques as well as the optimization of existing processes, including the utilization, treatment, and management of metallurgically generated residues. Articles on non-technical barriers and drivers that can affect sustainability will also be considered. Those interested in contributing as an author to Journal of Sustainable Metallurgy should [contact the Managing Editor](#).

The Green Chemistry and Sustainable Design Seminar

The seminar will be hosting three talks between November and December from 4 to 5:30 PM in 433 Latimer Hall. Speakers include:

- November 24, 2014 — Noah Kittner, Energy and Resources Group, UCB
- December 1, 2014 — Elena Krieger, PSE Healthy Energy

As a final note, Elena Krieger will be running an interactive problem-solving workshop from 12-1:30 pm on December 1. Lunch is provided and space is limited. For more information or to sign up, [email Heather Buckley](#).

Register for the Midwest Bioeconomy & Safer Products Summit

[The 2015 Minnesota Green Chemistry Forum](#) on February 19th will highlight and strengthen the relationship between the traditional green chemistry and bioeconomy sectors by convening academics and legislators with nationally recognized consumer brands, manufacturers, retailers, regulators and greenchemistry experts to highlight regional innovations that are solving global problems. Conference tracks are currently in development and include the current state of cellulose in biomass conversion, insight into corporate sustainability initiatives and the latest information on regulations such as the California Safer Chemistry Act. [Register here to attend the conference](#), which will be held at Pohland Hall in the Minneapolis Central Library.
