Connecting to Excellence: The Green Chemistry Innovation Portal

Oct. 26, 2015

www.greenchemistryportal.org

ACS Green Chemistry Institute®

GC3 GREEN CHEMISTRY & COMMERCE COUNCIL
Business Mainstreaming Green Chemistry

What is the GC3?

- Cross-sectoral, B2B network of over 70 companies and other organizations
- Formed in 2005
- Collaboratively advances green chemistry across sectors and supply chains

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GC3

Today's Speakers

John Frazier

GC3 Advisory Committee

Tom McKeag

Program Director
Berkeley Center for Green Chemistry

Anna Ivanova

Green Chemist
GC3

Ground Rules

- Due to the number of participants in the webinar, all lines will be muted
- If you have a question or comment, please type in the Q&A box located in the control panel at the right of your screen
- Questions will be answered at the end of the presentation

The Green Chemistry Innovation Portal

An Industrial Perspective

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Business Mainstreaming Green Chemistry

The Green Chemistry Community

Excitement and Optimism of the GC Community:

- Well-attended conferences
- Many first-time attendees
- Industry often separated from technical researchers
- As a colleague used to say, “Chickens Talking to Ducks”

Drivers of the Portal - From Industry

- Industry often separated from technical researchers
- Some industries lack technical resources
- There is a need for Technical Bridges:
  - "How do I solve _____?"
  - "Has anyone ever done _____?"
  - "Who can I talk to?"

Drivers of the Portal - From Researchers

Research often isolated from industry needs:

- Solutions in need of a problem.
- “I didn’t know your industry needed _____.”
- “Nobody ever told us what you were trying to solve.”
- “I have no idea who I can talk to in industry.”

We Needed a Matchmaking Tool

- The good news is that innovation is out there….lots of it!
- What we needed was to tap into:
  - The Green Chemistry Approach
  - The Broader Network of Chemists including:
    - The American Chemical Society
    - Green Chemistry and Commerce Council (GC3)
    - Universities
    - Companies that Need Sustainable and Green Innovation

The Green Chemistry Innovation Portal

An Academic Perspective

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Features and Uses

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Background

- Partnership between the GC3 and American Chemical Society's GCI
- Intended to:
  - Connect green chemistry community outside of conferences
  - Share research and innovations
  - Promote partnership and collaboration
  - Demonstrate size of green chemistry community

Green Chemistry Innovation Portal

INNOVATION MAP

EXPLORE THE COMMUNITY

New to green chemistry and want to know who's committed? Check out the Innovation Map to get a picture of this fast-growing community.

INNOVATION FORUM

JOIN THE DISCUSSION

Have a question to ask, news to spread, or technology to promote? Share it with our community at the Innovation Forum.

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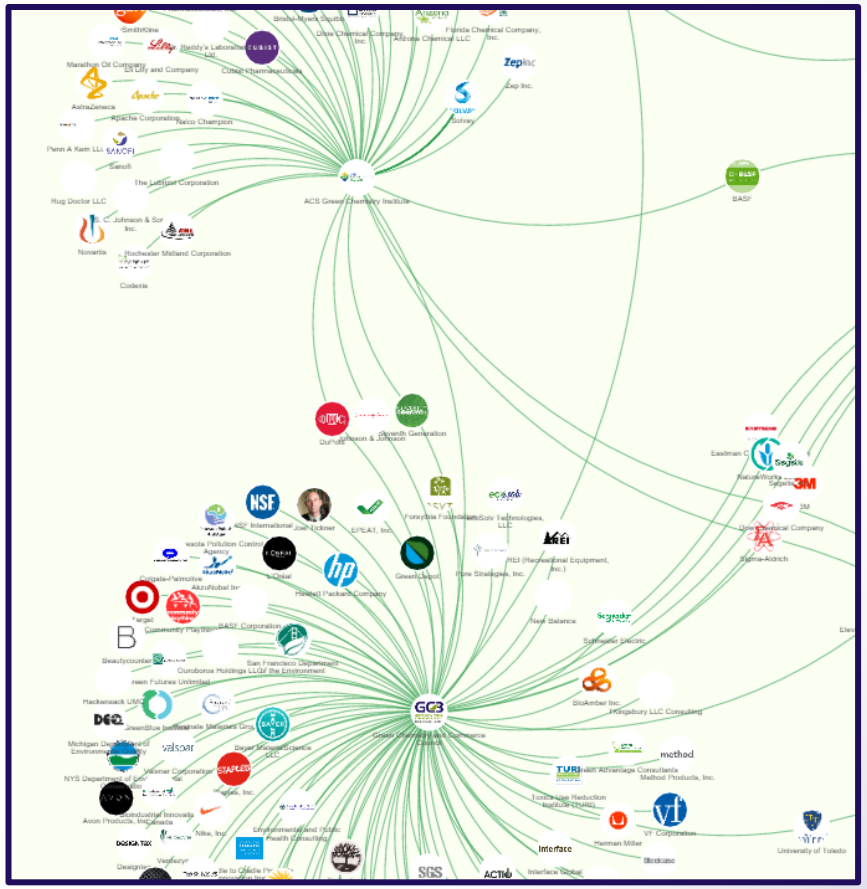
Innovation Map

- Visual map of organizational connections in the green chemistry community
- All sectors and industries
- Searchable
- Dynamic interface with regional viewing option



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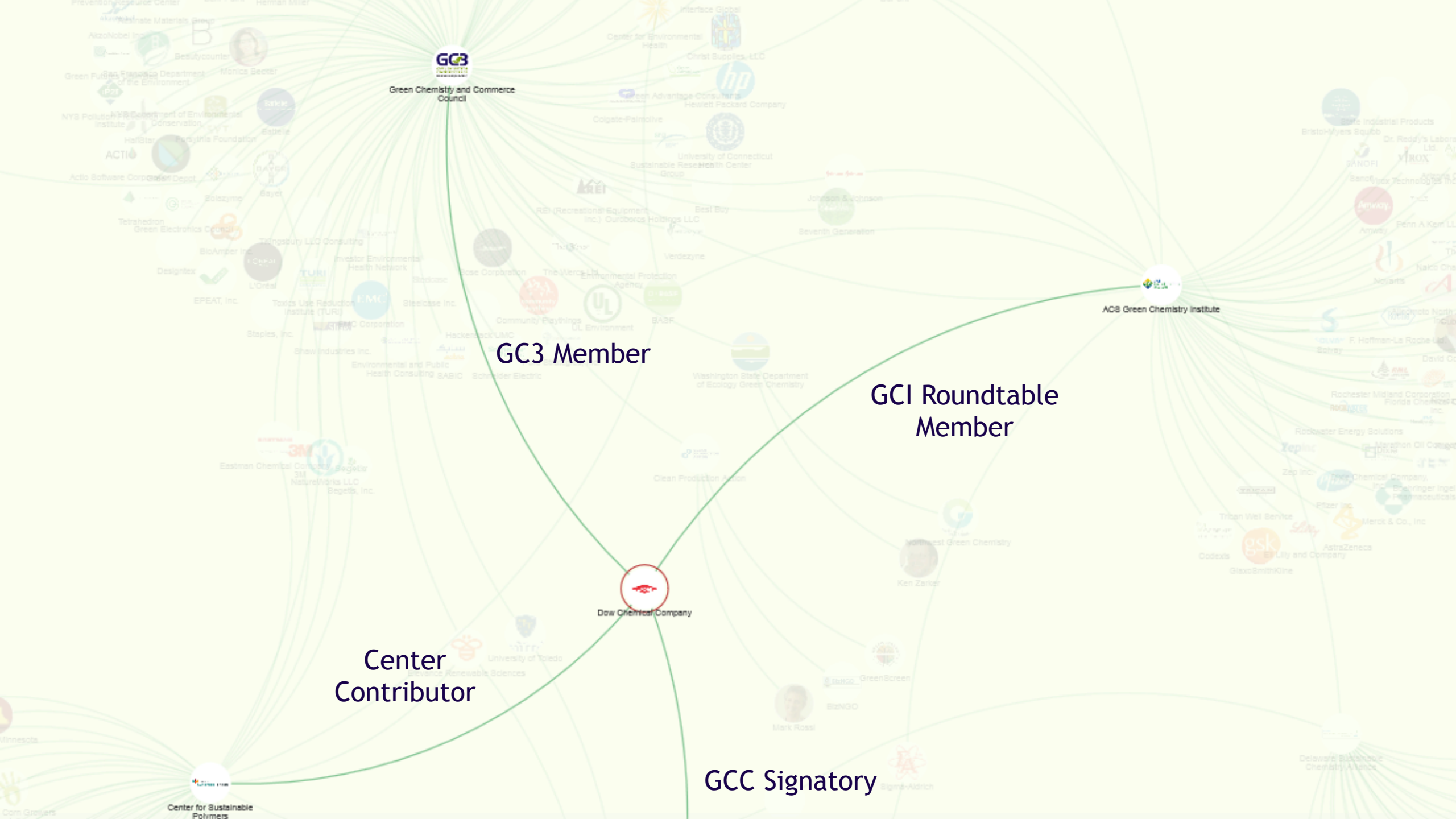
Green Chemistry and Commerce Council
ACS Green Chemistry Institute
Washington State Department of Ecology Green Chemistry
Clean Production Action
Dow Chemical Company
Elevance Renewable Sciences
University of Toledo
Center for Sustainable
Delaware Sustainable Chemistry Alliance
Sigma-Aldrich
Ken Zarker
Mark Rossi
BizNGO
GreenScreen
Northwest Green Chemistry
Eastman Chemical
3M
NatureWorks
Segetis, Inc.
Staples, Inc.
Shaw Industries Inc.
Environmental and Public Health Consulting
Hackensack UMC
Schneider Electric
Pure Strategies, Inc.
Community Playthings
Steelcase Inc.
Toxics Use Reduction Institute (TURI)
EPEAT, Inc.
Designtex
L'Oréal
BioAmber
Tetrahedron
Green Electronics Council
Actio Software
Solazyme
Bayer
Battelle
Monica Becker
Beautycounter
Green Fusion
NYS Pollution Prevention Institute
HallStar
Colgate-Palmolive
Green Advantage Consultants
Hewlett Packard Company
Center for Environmental Health
Interface Global
Bose Corporation
The Verge Ltd.
Verdezyne
REI (Recreational Equipment Inc.)
Ouroboros Holdings LLC
Best Buy
Johnson & Johnson
Seventh Generation
Amway
Bristol-Myers Squibb
Sanofi
Novartis
Bolvay
F. Hoffman-La Roche
Rochester Midland Corporation
Rockwater Energy Solutions
Zep Inc.
Pfizer Inc.
Merck & Co., Inc
AstraZeneca
GlaxoSmithKline
Tricon Well Service
Codexis


Green Chemistry and Commerce Council
GC3 Member
ACS Green Chemistry Institute
GCI Roundtable Member
Dow Chemical Company
Center Contributor
Center for Sustainable Polymers
GCC Signatory

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Innovation Forum

- Online space for discussions around green chemistry
- Anyone can post
- Free account allows you to follow discussions
- Categories for safer alternatives, B2B, bio-based chemicals, job board…

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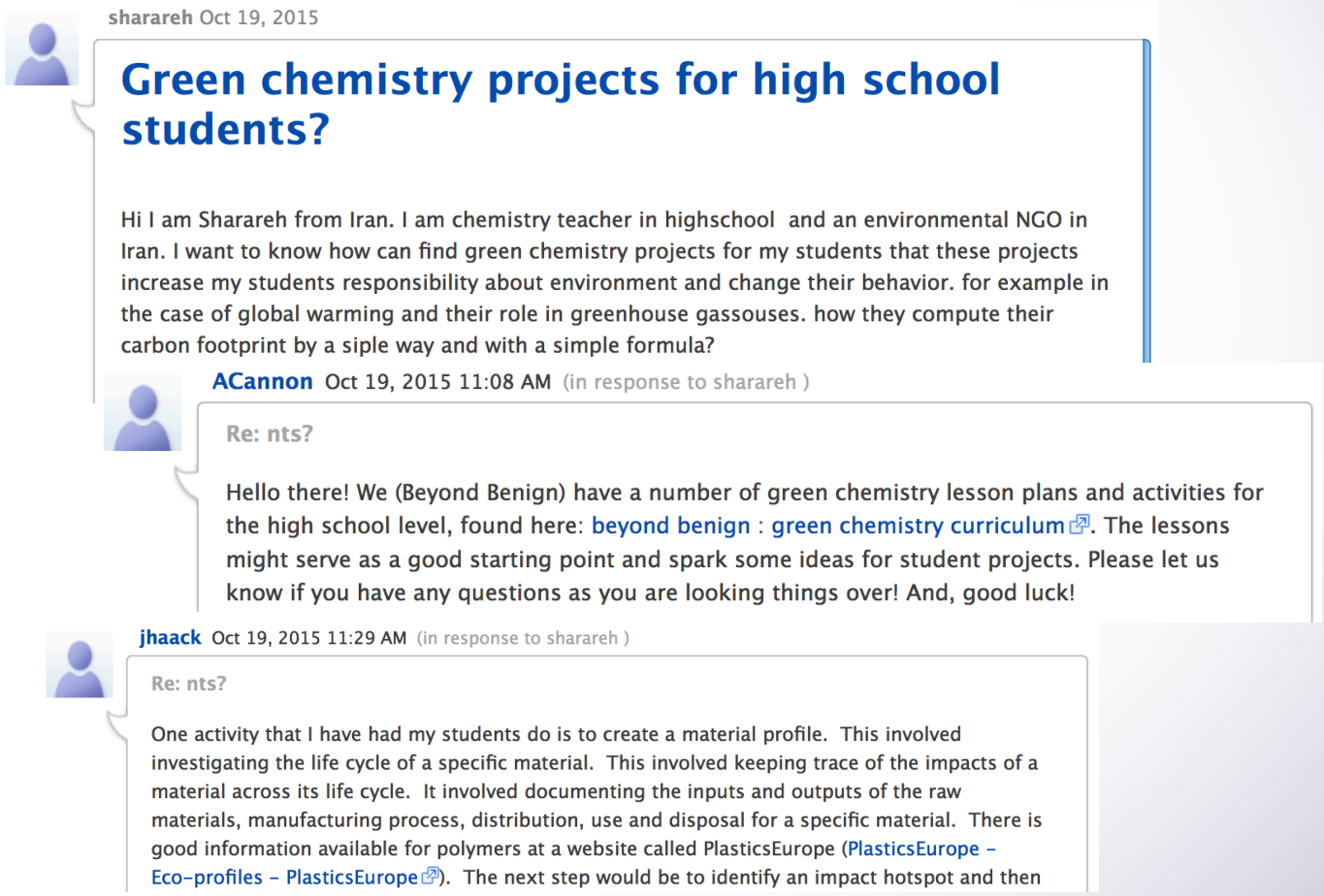
Innovation Forum

- Uses GC3 and GCI expertise to find answers
- Easy to use
- How-to videos on getting started
- Option to Ask a Moderator for help with forum or question



shareareh Oct 19, 2015

Green chemistry projects for high school students?

Hi I am Sharareh from Iran. I am chemistry teacher in highschool and an environmental NGO in Iran. I want to know how can find green chemistry projects for my students that these projects increase my students responsibility about environment and change their behavior. for example in the case of global warming and their role in greenhouse gassouses. how they compute their carbon footprint by a siple way and with a simple formula?

ACannon Oct 19, 2015 11:08 AM (in response to shareareh)

Re: nts?

Hello there! We (Beyond Benign) have a number of green chemistry lesson plans and activities for the high school level, found here: beyond benign : green chemistry curriculum. The lessons might serve as a good starting point and spark some ideas for student projects. Please let us know if you have any questions as you are looking things over! And, good luck!

jhaack Oct 19, 2015 11:29 AM (in response to shareareh)

Re: nts?

One activity that I have had my students do is to create a material profile. This involved investigating the life cycle of a specific material. This involved keeping trace of the impacts of a material across its life cycle. It involved documenting the inputs and outputs of the raw materials, manufacturing process, distribution, use and disposal for a specific material. There is good information available for polymers at a website called PlasticsEurope (PlasticsEurope – Eco-profiles – PlasticsEurope). The next step would be to identify an impact hotspot and then

Value of the Innovation Portal

Innovation Map

- Demonstrate size and diversity of green chemistry community
- Find potential partner or funding organizations
- Explore green chemistry organizations

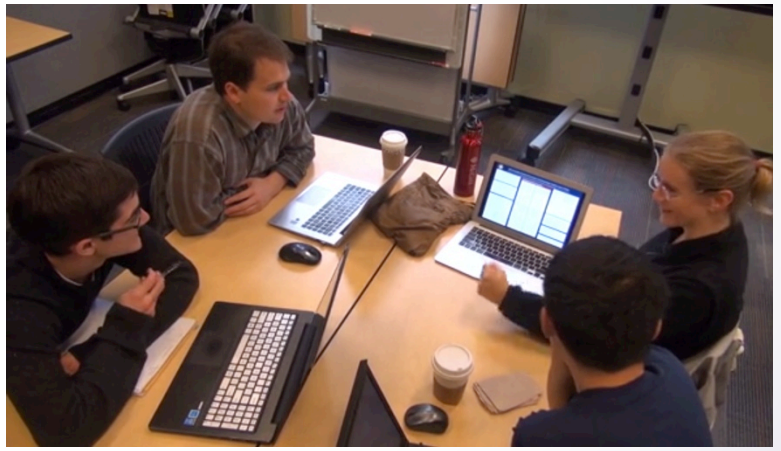
Innovation Forum

- Flexible communication tool
- Hosted on the ACS Network
- GC3 and GCI expertise to answer your questions
- Keep up with green chemistry news and discussions

Ask the Innovators on the Forum

- November 10th, 3:00-4:30 ET
- Text-based Q&A session
- Ask anything about BCGC Greener Solutions Program
- Questions will be answered live by BCGC and Method
- Submit questions starting Nov. 3rd at www.acs.org/gcforum

BERKELEY CENTER FOR GREEN CHEMISTRY



method
people against dirty

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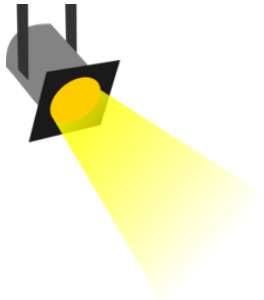
Upcoming Events

WEBINAR

Chemical Hazard Assessment: Informing Decisions for Safer Chemicals, Materials, and Products

Nov. 10th, 2015 1:00-2:00 PM ET (10:00-11:00 PT)



Ask the Innovators: Spotlight on Berkeley's Greener Solutions Program

Nov. 10th, 2015 3:00-4:30 PM ET (12:00-1:30 PT)

GC3 INNOVATORS ROUNDTABLE
MAY 24-26, 2016 | BURLINGTON, VT
hosted by seventh generation

11th Annual GC3 Innovators Roundtable Sponsored by Seventh Generation

May 24th-26th, 2016, Burlington, VT

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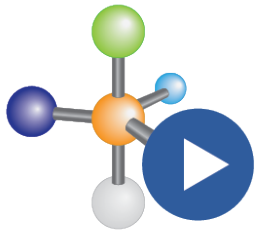
New from GC3: Safer Chemistry Training

GREEN CHEMISTRY & COMMERCE COUNCIL

Safer Chemistry Training for Businesses



Webinar Title and Description	Presenters	Chemistry Rating
Foundations for Green Chemistry and Green Engineering		
Green Chemistry: Benign by Design One of the fathers of green chemistry, Dr. John Warner, provides an introduction to green chemistry, as well as ideas for how to build this concept into education and practice.	**John Warner** Warner Babcock Institute for Green Chemistry	
Introduction to Green Engineering Green engineering applies principles similar to those of green chemistry to process and product design. In this webinar, experts in green engineering introduce principles, tools, and examples of this practice.	**Julie Zimmerman** Yale University	
	Matthew Eckelman Northeastern University	
	Julie Schoenung University of California Davis	
The Role of Policy in Green Chemistry Research and Adoption This webinar provides an overview of the range of policies that can affect chemical design and product development and adoption, with examples from a major chemical manufacturer.	**Robert Giraud** DuPont Company	
	Joel Tickner Green Chemistry & Commerce Council	
Green Chemistry in Business		
The Value of Green Chemistry	**Helen Holder**	

- Free, customizable online curriculum
- Webinars ranging from introductory to advanced
- Can be tailored to specific job needs

www.greenchemistryandcommerce.org/safer-chemistry-training

Thanks for joining us!

www.greenchemistryportal.org

For more information about the GC3:
GC3info@greenchemistryandcommerce.org

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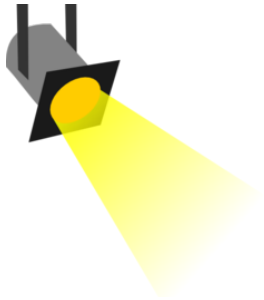

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