

WEDNESDAY, JULY 27

Wed-01:00-APSymp-04, Chemistry Building, Room 1720

.....AP Chemistry Symposium

Wed 1:00-1:45 PM

Micro Qualitative Analysis (AP Chemistry Symposium)

Dennis M. Kliza, dennis.kliza@kinkaid.org

Qualitative Analysis is the highlight of most AP Chemistry courses. It requires students to have a working knowledge of both complex ions and the solubility rules. This presentation will prepare AP Chemistry teachers to teach their students how to use micro-scale chemistry principles and a reaction matrix to identify the cation and anion in five separate unknowns.

Wed-01:00-P-01, Chemistry Building, Room 1220Presentation

Wed 1:00-1:45 PM

Chemical principles visualized: lecture demonstrations and activities

David A Katz, dakatz45@msn.com

This presentation will use demonstrations and hands-on activities, along with some animations, that are easy to set up, safe, and focus on specific chemical principles such as safe colored flames, visualizing intermolecular forces, visualizing pH, visualizing reaction stoichiometry, visualizing reaction kinetics, visualizing equilibrium, and more.

Wed-01:00-P-02, Chemistry Building, Room 1260 Exhibitor Presentation

Wed 1:00-1:45 PM

A Natural Approach to Chemistry: CHEMISTRY FOR ALL. Is it possible?

Debbie Carlisle, dcarlisle@crocker.com

This new chemistry program addresses the need for a relevant and meaningful chemistry curriculum in high school. Central concepts in chemistry are developed using guided-inquiry laboratory activities that engage students. Relevant learning theories and cognitive models will be incorporated. We will conclude with a focus on STEM Education and the role of chemistry.

Wed-01:00-P-04, Rood Hall, Room 1110Presentation

Wed 1:00-1:45 PM

Chemistry Didactics - on the base of a round-cake metaphor

Hans-Dieter Barke, barke@uni-muenster.de

Chemistry Education requires subjects like experiments, models, chemistry terminology, motivation, students misconceptions, etc. These subjects cannot be lectured in a linear way. For a new book "Essentials in Chemistry Education" I looked forward to do those subjects in a "round-cake diagram" and will present this idea in the lecture.

Wed-01:00-P-05, Rood Hall, Room 1118.....Presentation

Wed 1:00-1:45 PM

Guided Inquiry Materials for a Chemistry in Art Course

Dr. Cheryl Coolidge, ccoolidge@colby-sawyer.edu, and Dr. Shari Litch-Gray

We will share a collection of guided inquiry activities based on the POGIL model designed for a use in Chemistry in Art course. This course would be appropriate for a nonscience major course at the college level or an advanced high school course.

Wed-01:00-P-06, Wood Hall, Room 1001.....Presentation

Wed 1:00-1:45 PM

Five Minute Demos

Betty Catelli, bcatelli@sbcglobal.net

A number of demonstrations that illustrate chemical principles will be shown. They are safe, easy to set up and clean up, and don't require much class time or specialized equipment. Many use only household chemicals, so they are "green," too.

Wed-01:00-P-07, Wood Hall, Room 1107.....Presentation

Wed 1:00-1:45 PM

Making Thinking Visible: Using Whiteboarding in the Chemistry Classroom

Gary G. Abud, Jr., gary.abud@gpschools.org

Empower your students, at any level of chemistry study, to develop better thinking, reasoning and problem-solving skills in any chemistry topic. Using whiteboards will encourage students to learn from each other, become more metacognitive and create multiple representations of concepts.

Wed-01:00-P-09, Wood Hall, Room 1718.....Presentation

Wed 1:00-1:45 PM

Rainbow Matrix

Joseph Chimeno, jchimeno@rrcc.mnscu.edu

The Rainbow Matrix is a computerized chemical nomenclature game developed to help students master inorganic chemical nomenclature.

Wed-01:00-P-10, Kohrman Hall, Room 2308.....Workshop

Wed 1:00-1:45 PM

How to Build a Great Classroom Website

Janelle Hollingshead, janellearendt@hotmail.com

I have learned how to create a blog that I use as a classroom web-site and I would like to share that with other teachers. I am very excited about this opportunity to share this technology which will improve student learning and parent communication. If you would like a preview of what we will be doing in class please feel free to check my website at lanetechchemistry.blogspot.com.

Wed-01:00-W-01, Chemistry Building, Room 2211..... Workshop

Wed 1:00-2:30 PM

\$15

Tried and True and Relatively New Microscale Experiments

John Mauch, mauch1312@aol.com, and Linda Weber

Microscale chemistry has had a huge influence on what kinds of experiments are being done at the high school level. This workshop will share 8 experiments that illustrate the variety and methods that can be done. Avogadro's hypothesis, kinetics, equilibrium, acid base titration, stoichiometry and Job's method will be shared in this workshop.

Wed-01:00-W-02, Chemistry Building, Room 2260..... Workshop

Wed 1:00-2:30 PM

TI-Nspire: A Chemistry Teacher's Best Friend

Ray Lesniewski, chemguy65@yahoo.com

The TI-Nspire is one of the most versatile tools in the modern chemistry classroom. Participants will learn how this device can be used for data collection and analysis, simulations and formative assessment. They will engage in a variety of hands-on lessons covering thermodynamics, precision in measurements, and chemical equilibrium.

Wed-01:00-W-03, Chemistry Building, Room 3871..... Exhibitor Workshop

Wed 1:00-2:30 PM

Thirst Quenchers Inquiry

Greg Dodd, gbdodd@gmail.com

Research shows that students better understand chemistry concepts through exploration. Having students in beginning, intermediate, or advanced chemistry classes experience inquiry-based activities using technology will put them in a much better position to be successful in future chemistry courses. In this session, participants learn strategies for teaching a model inquiry-based activity called "Thirst Quenchers Inquiry." Students will discover the concepts of electrolytes and nonelectrolytes using common drinks. A discussion on best practices for implementing inquiry-based activities using technology follows the exploration. chemistry courses. A discussion on best practices for implementing inquiry-based activities using technology follows the exploration.

Wed-01:00-W-06, Wood Hall, Room 2722 Workshop

Wed 1:00-2:30 PM

Cooperative Learning in the Chemistry Classroom

Dr. Kathleen Holley, kholley@txwes.edu

Come learn a number of cooperative learning activities applicable to any chemistry topic. These activities have been in use for years at both the high school and college levels, and have helped students increase their achievement while also helping to promote a more positive attitude among students in the class.

Wed-01:00-W-07, Chemistry Building, Room 2851..... Workshop

Wed 1:00-4:00 PM

\$135 or \$295

Rediscover the Excitement of Inquiry in the Laboratory

Irwin Talesnick, irwin@s17science.com, and John Eix

Following this workshop participants will be anxious and excited to share their the experiences with their students. They will observe and perform 20 innovative experiments in REDOX, GAS LAWS, MASS SPECTROSCOPY and EQUILIBRIUM. A BASIC KIT (\$135) contains \$246 worth of equipment. A DELUXE KIT (\$295) contains \$564 worth of equipment.

Wed-01:00-W-08,Sangren Hall, Room 1107 Exhibitor Workshop

Wed 1:00-2:30 PM

Effective Molecular Modeling Experiments for the Chemistry Teacher

Jurgen Schnitker, sales@wavefun.com; Paul Price

Molecular modeling as a teaching tool no longer has to be limited to visualizing static models of single molecules. Even the most inexpensive of current computers operate at such high speeds that interactive dynamic simulations of true samples of "matter" have become a realistic option for classroom demonstrations and student labs. Attendees of this workshop will be introduced in a hands-on way to a variety of computer experiments relevant for the standard high school chemistry and AP chemistry teaching schedule.

Wed-01:00-W-09, Chemistry Building, Room 1871..... Workshop

Wed 1:00-2:30 PM

Converting Existing "Cookbook" Laboratory Experiments to Inquiry Format

Jeff Bigler, mrbigler@mrbigler.com

Participants will be taught a method for converting "cookbook" experiments to inquiry format. After a brief presentation, participants will divide into groups. Each group will choose a cookbook experiment, modify it, and present it to another group. Groups will perform and evaluate each other's experiments.

Wed-01:45-APSymp-05, Chemistry Building, Room 1720

..... ***AP Chemistry Symposium***

Wed 1:45-2:30 PM

Using OWL in AP Chemistry

Kathy Kitzmann, kakitzmann@mhsmi.org

The presenter has used OWL (On-line Web-based Learning)in AP Chemistry for three years and will share what she considers to be the pros and cons of the program and how she has used it with her students. OWL is the "most widely used online chemistry solution in the world."

Wed-02:00-P-01, Chemistry Building, Room 1260Presentation

Wed 2:00-2:45 PM

Anyone Can Replace Lectures with Guided Inquiry

Jason Neil, neilchemistry@gmail.com

Participants will learn how to create "paper and pencil" guided-inquiry lessons to teach the same topics they currently teach by lecture. Ready-made lesson examples will be provided. Emphasis is not on laboratory investigations, but rather on transforming lectures into engaging guided-inquiry activities.

Wed-02:00-P-02, Rood Hall, Room 1118Presentation

Wed 2:00-2:45 PM

Targeting Inquiry Standards with Project Based Learning (PBL)

Jody Tuls, jtuls@mattawanschools.org, Heather Kramer and Laura Bell

Ever wondered if you could teach a PBL unit in chemistry? This is the session for you! Come and discover how to put together a PBL unit that includes hydrocarbons, thermodynamics, covalent bonding, IMFs, and polymers. In addition, students gain technology skills and inquiry standards that are often overlooked.

Wed-02:00-P-03, Wood Hall, Room 1107Presentation

Wed 2:00-2:45 PM

Before, Change, After (BCA) Tables

Gary G. Abud, Jr., gary.abud@gpschools.org

Put away the nebulous algorithms that are only intelligible to the math-strong students, and adopt a method that connects stoichiometry clearly to the balanced equation and promotes conceptual understanding. Like ICE Tables in equilibrium, BCA tables allow students to successfully reason through the calculations and problem solve. Once you learn how to teach the BCA table method of performing stoichiometry calculations, you will abandon all other methods.

Wed-02:00-P-04, Wood Hall, Room 1127Presentation

Wed 2:00-2:45 PM

CLIFF - Chemistry Learning in Fun Formats

Jana Yetzke, jyetzke@yahoo.com, and Allison Larson

Do you have those students that stare at you like you are speaking a foreign language? Come visit us for hands-on, fun Chemistry games & activities that will engage even the most unmotivated student. Examples will be presented in electron configuration, periodic trends, naming, and more!

Wed-02:00-P-06, Wood Hall, Room 1710.....Presentation

Wed 2:00-2:45 PM

Are YOU practicing safe chemistry?

Dr. Al Hazari, ahazari@utk.edu

It is every educator's responsibility to encourage safety in chemical activities. Come and learn about the many resources that the ACS Committee on Chemical Safety (CCS) has produced. These provide advice on the handling of chemicals and seek to ensure safe facilities, designs, and operations by calling attention to potential hazards and stimulating education in safe chemical practices. The presenter is a former chair of CCS.

Wed-02:00-P-07, Wood Hall, Room 1728.....Presentation

Wed 2:00-2:45 PM

Redesigning the Laboratory Investigation: Integrating Inquiry into Chemistry

Cece Schwennsen, cschwennsen@gmail.com, and Angela Powers

Learn how tried-and-true chemistry laboratory activities can be transformed into investigations that engage students while helping them to develop abilities for and understandings about inquiry.

Wed-02:00-P-08, Rood Hall, Room 1110.....Presentation

Wed 2:00-2:45 PM

The Nano-Catalytic Converter: Introducing Nanotech

Eleni Daoutsali, eleni.daoutsali@uni-muenster.de

The presentation will show a context-based way to introduce nanotechnology into chemistry lessons at school by using the automotive catalytic converter. As the catalytic converter consists of platinum nanoparticles it is suitable for the introduction to nanotechnology. The evaluation of the teaching intervention will be presented as well.

Wed-02:00-P-09, Chemistry Building, Room 1220Presentation

Wed 2:00-2:45 PM

The Impact of Student Presentations - How to debrief students after laboratory experiments to improve content understanding

Kevin Kopack, yogtofu@gmail.com

This presentation will demonstrate how to implement student presentations in order to assess students' understanding of laboratory assignments. This session will highlight how student led summaries of laboratory experiences cement understanding and improve public speaking/presentation skills.

Wed-02:00-W-01, Chemistry Building, Room 2271.....Workshop

Wed 2:00-3:30 PM

\$3 for bandana or \$7 for silk scarf

Not Your Mother's Tie Dye

Melissa Jones, mdjchem@yahoo.com, and Meg Young

Tie-Dye resist techniques have been practiced around the world for centuries. The participants will have an opportunity to learn different techniques and to experience one technique in the dyeing of either a bandana or silk scarf. Two techniques will be demonstrated shibori and dyeing silk in the microwave.

Wed-02:30-APSymp-06, Chemistry Building, Room 1720Presentation

Wed 2:30-3:15 PM

Great AP Demos (AP Chemistry Symposium)

Bette Bridges, babridges@comcast.net

Excite your AP class with these great demos appropriate for the AP class.

Wed-03:00-P-01, Chemistry Building, Room 1260Presentation

Wed 3:00-3:45 PM

Anyone Can Replace Lectures with Guided Inquiry

Jason Neil, neilchemistry@gmail.com

Participants will learn how to create "paper and pencil" guided-inquiry lessons to teach the same topics they currently teach by lecture. Ready-made lesson examples will be provided. Emphasis is not on laboratory investigations, but rather on transforming lectures into engaging guided-inquiry activities.

Wed-03:00-P-03, Rood Hall, Room 1104.....Presentation

Wed 3:00-3:45 PM

Mastering the Periodic Table through Hands on Activities

Madhu Dwivedi, madhudwivedi@hotmail.com

Experience the extravaganza of hands on activities to master the periodic table! Participants will have the opportunity to experience an extravaganza of hands on activities to make mastery of periodic table easy and interesting. The impossible made possible by the use of interactive activities involving the smart board and fun filled games with minimum teacher talk, all packed on one CD.

Wed-03:00-P-04, Wood Hall, Room 1107.....Presentation

Wed 3:00-3:45 PM

The Density Dunk: A Problem-Based Learning Approach to Teaching the Density Concept

Gary G. Abud, Jr., gary.abud@gpschools.org

Students will learn the relationship between mass and volume through a series of hands-on activities and data interpretation opportunities, which all culminate in the authentic problem-solving task of determining the density of a student. These lessons and activities are inquiry-based in nature and make for an engaging student-centered learning experience.

Wed-03:00-P-05, Wood Hall, Room 1127.....Presentation

Wed 3:00-3:45 PM

Incorporating Reading and Writing Strategies into your Chemistry Curriculum

Kathe Blue Hetter, kbhetter@gmail.com, and Dusti Vincent

Learn strategies for incorporating reading and writing strategies into your chemistry classes. We will share what we have done in our science classes to help all student comprehend and break down the content.

Wed-03:00-P-06, Wood Hall, Room 1710.....Presentation

Wed 3:00-3:45 PM

Don't Try This At Home - Using Mythbusters in Your Science Classroom!

Kathy Winczewski, kwinc@hotmail.com, Rebecca Fredrick and Erika Fatura

Learn how to use the popular Discovery Channel show "Mythbusters" in your science classroom! You will get a copy of a detailed episode guide that is aligned to the Michigan state standards and broken down into specific content area. Also - Oprah's Favorites - A quick look at some valued teaching ideas.

Wed-03:00-P-07, Wood Hall, Room 1718.....Presentation

Wed 3:00-3:45 PM

Write Your Way to Success: Grant Writing Strategies for You and Your Chemistry Students

Kenetia Thompson, k_thompson2@acs.org, and Michael Mury

Looking to fund your innovative ideas for improving chemistry education? We will give you pointers for writing a fundable proposal and share grant opportunities from the American Chemical Society.

Wed-03:00-P-08, Wood Hall, Room 1728.....Presentation

Wed 3:00-3:45 PM

Using Metacognition and Formative Assessment to Improve Student Learning in Chemistry

Angela Powers, arpowers@comcast.net, and Cece Schwennsen

Join us for a discussion of how to incorporate metacognitive strategies and formative assessment into introductory chemistry.

Wed-03:00-P-09, Wood Hall, Room 2722.....Exhibitor Workshop

Wed 3:00-3:45 PM

Process Oriented Guided Inquiry Learning (POGIL) for High School Chemistry and Biology Classrooms

Laura Trout, troutl@lancastercountryday.org, Diane Krone, Paula Butler, and Pat Ligon

Participants will be introduced to the POGIL pedagogy and the work of the High School POGIL Initiative (HSPI). Activities from the new HSPI collection, authored and classroom tested by teachers involved in the project, will be examined. Sample biology and chemistry activities will be provided for attendees.

Wed-03:00-W01, Chemistry Building, Room 3871 Exhibitor Workshop

Wed 3:00-4:30 PM

Thirst Quenchers Inquiry

Greg Dodd, gbdodd@gmail.com

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Wed-03:15-APSymp-07, Chemistry Building, Room 1720Presentation

Wed 3:15 PM-4:00 PM

Sustainability in the AP Chemistry Lab (AP Chemistry Symposium)

Bonnie Bloom, bonnie_bloom@hboe.org

Incorporate the idea of sustainability into your AP Chemistry class while simultaneously saving both time and money. Laboratory experiments that correspond to the suggested AP Chemistry labs use the principles of green chemistry. They are inexpensive and do not require dealing with hazardous waste.