



## **Detroit Anachem/SAS**

### **Monthly Program**

**Everyone welcome to attend!**

## **“The Fabric of the Past: Archaeological Chemistry of Ancient Textiles”**

Presented by Dr. Ruth Ann Armitage

Professor of Chemistry

Eastern Michigan University

**Where:** Room 300, Halle Library, 955 W. Circle Dr.  
Eastern Michigan University, Ypsilanti, MI

**When:** Wednesday, October 5, 2016, 6:00 PM

**Abstract:** Chemical characterization of archaeological objects is overwhelmingly focused on durable materials like stone, ceramic, metal, and in many cases, bone. Perishable artifacts – those made of plant and animal fibers and other organic materials – are less well represented in the archaeological record because they are poorly preserved except under certain conditions. Studies of textiles, cordage, netting, and basketry have been limited by their scarcity and by the large amounts of material that have been needed in the past for dating and characterization. With developments like accelerator mass spectrometry for radiocarbon analysis and non- or minimally-destructive analytical methods, much can now be learned from tiny fragments of these irreplaceable and rare objects. This talk will describe work at our laboratory in using a variety of

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## Call for Assistance on New Video Project

The Communications Committee is currently considering putting together a grant submission for the ACS Local Section Virtual Event Participation Grant program. Photography and Videography Chair Matt Smith is looking to potentially put together a proposal that would potentially allow the section to record and also stream talks and events live over the internet, but would require some assistance in getting the project completed.

If you're looking to become more involved at the local level, this would be a great opportunity to do. If you are interested, please contact Matt via email at [mssmith@beckman.com](mailto:mssmith@beckman.com)

### Local Section Facebook Page Error Messages

It has recently come to the attention of the Communications committee that some of our local members are having issues accessing the section's Facebook page. If you are receiving an error message like the one below, please reach out to our Facebook team and let them know (Gina Ludwig at [gludwig7@yahoo.com](mailto:gludwig7@yahoo.com) or Matt Smith at [mssmith@beckman.com](mailto:mssmith@beckman.com)). We're working to try to quickly resolve the issue and would greatly appreciate any assistance in determining how widespread the issue is. Thank you all for your assistance, as well as patience!

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analytical methodologies to determine the age, composition and dyeing technology of archaeological and historic fiber materials from around the world, including Seip Mound in Ohio and the elaborate mummy wrappings of the Paracas Necropolis in Peru.

**Biographical Sketch:** Ruth Ann Armitage is a professor of chemistry at Eastern Michigan University. She received her B.S. (1993) and Ph.D. (1998) degrees in chemistry from Thiel College and Texas A&M University (Mentor: M.W. Rowe). She started her independent career at St. Mary's College of Maryland (1998-2001) before moving to Eastern Michigan (2001-present) where she received tenure. Her current research projects involve radiocarbon dating of charcoal rock paintings from Cuba, identification of organic dye colorants in textiles and manuscripts by DART-ToF-MS, rapid identification of binding media and glues, evaluating the efficacy of DART-MS for identifying residues on ancient and historic ceramics, and minimally-destructive radiocarbon dating of ancient North American textiles.

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**Directions from Detroit:** Take I-94 exit 183 to Huron St 0.3 mi turn right at Huron St. go 1.0 mi to W. Cross Ave turn left go 0.7 mi and bare right on to E. Washtenaw, turn right onto Oakwood go one block past W. Circle Dr. turn right and go to lot D4 on right for paid parking. [EMU map \(click here\)](#)

**Contact:** Felix Schneider at [felixschn35@gmail.com](mailto:felixschn35@gmail.com) or voice mail 248-583-1578

## Volunteers Needed for Chemistry Day

**What:** Chemistry Day

**When:** Saturday, November 12, 2016

**Where:** First United Methodist Church of Troy  
6363 Livernois Avenue, Troy, Michigan

**Time:** 8:30 AM – 1:30 PM

The Detroit Section of the American Chemical Society is partnering with the Girl Scouts of Southeastern Michigan for the 12<sup>th</sup> Annual Chemistry Day. The Girl Scouts will be participating in an art project and other activities while learning about the fun of chemistry. They will learn about chemistry by doing hands-on experiments and participating in a career game. Through these activities, the Scouts will each earn a National Chemistry Week patch. This will be a large program both in terms of Girl Scouts (200 expected) and in terms of volunteers participating (25+).

The chemistry aspect of the day includes hands-on experiments. We will have several experiments set up on tables. They will include polymer cross-linking (making Gloop), Slime!, and dry ice experiment. Our audience will consist of the Junior Girl Scouts.

We have a Chemistry Day Committee to organize the event each year. We will need ~20 - 25 additional volunteers to participate in demonstrating the experiments and overseeing the art project. Our participation is scheduled for Saturday, November 12<sup>th</sup> from 8:30 AM to 1:30 PM. Your help will be greatly appreciated!

If you are interested in joining some of your fellow chemical professionals in a fun morning of community service, please contact Mary Kay Heidtke at [mkheidtke@aol.com](mailto:mkheidtke@aol.com) or 810-919-0888. A continental breakfast and lunch (pizza) will be provided.

## Calendar of Upcoming Events

**Second Tuesday of the Month:** Detroit Section Exec. Committee Meeting – held at Univ of Detroit Mercy 7:00 PM.

**Third Tuesday of Every Month:** Brewing Chemistry. Please see <http://brewingchemistry.com> for information on upcoming topics.

Oct 11: Oct Exec. Committee Meeting

Oct 5: Anachem/SAS Meeting at Eastern

Oct 18: Brewing Chemistry at TJ &S

Nov 15: Brewing Chemistry at TJ&S

Nov 12: Chemistry Day

June 6—10: CERM



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