



## ACS-KC SECTION MONTHLY MEMBERSHIP MEETING:

Please RSVP to Sarah Leibowitz:  
[sleibowitzacs@gmail.com](mailto:sleibowitzacs@gmail.com)  
by April 4, 2025.  
Thank you!

WHEN: *Tuesday, April 8, 2025; 6:00pm*

WHERE: *Arthur Mag Conference Center, 425 Volker Ave., KCMO*

SPEAKERS: *Drs. Bill Gutheil, David Van Horn, & Kumar Salih*

ABSTRACTS: *Please see Page 2 for the three abstracts.*

MENU: *Pizza and Beverages*

COST: \$5



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## ACS-KC SECTION CELEBRATES ITS QUASQUICENTENNIAL!

This year, the KC Section is celebrating our Quasquicentennial, which is our **125<sup>th</sup> Anniversary!** That's right, the section was founded in 1900, and we are going to have a year-long celebration as a result. The section recently received a \$2,000 grant from the National ACS in support of our Quasquicentennial Celebration and we plan on organizing many interesting activities, including inviting some eminent speakers and having a membership meeting where we review the past 125 years of history of the section.

If you have ideas for events or celebrations that you would like to see for our Quasquicentennial, please do not hesitate to contact me at [jwoodford@missouriwestern.edu](mailto:jwoodford@missouriwestern.edu).

Thank you for joining the celebration!

- AMERICAN CHEMICAL SOCIETY 1876-2025
- 149 YEARS
- \*Make sure to check out our website!!
- [www.acs-kc.com](http://www.acs-kc.com)

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## Monthly Membership Meeting Details; Tuesday, April 1, 2025:

### Our Speakers and Their Abstracts:

**Dr. J. David Van Horn**, Faculty of Chemistry, Division of Energy, Matter, and Systems, School of Science and Engineering, UMKC.

**Abstract:** The most notable blue copper proteins are azurin (in bacteria) and plastocyanine (in plants). They have been named thusly because they contain copper, and they appear intensely blue in solution. Their function is to act as an electron shuttle, utilizing the redox properties of the Cu(I, II) couple. There are several types of copper proteins, the various families are well studied regarding their metal coordination site and activity in biological systems. As part of studies related to the biological trafficking of various metal ions, we were interested in small peptide motifs that bind to various metal ions such as nickel, copper, cobalt, iron, etc. The ATCUN nickel and copper binding motif is a well-studied and stable bioinorganic complex. This peptide has three amino acid residues typically Xaa-Xaa-Histidine binding site for Ni(II) and Cu(II). In exploring very various variants, we hit upon the idea of using methionine with its thioether side chain residue to coordinate to a copper ion. This results in a pleasant Cu(II) complex that has been characterized in solution. The complex is chiral, gives a pleasant blue color, and binds to copper with good affinity. This talk will briefly introduce the blue copper proteins, bio inorganic solution thermodynamics, and the characterization of this “minimalist blue copper protein.”

**Dr. Bill Gutheil**, Professor, School of Pharmacy, Division of Pharmaceutical Sciences, UMKC.

**Abstract:** Systems described by multiple equilibria are common but can be analytically challenging. A systematic approach to such systems in terms of hierarchical interactions will be described, and its application to polyprotic acids and bases used to illuminate its application. This analysis reveals that such systems are dominated by simple pairwise proton-proton interactions. In organic carboxylic acids and amine bases the proton-proton interactions depend only on the number of atoms between the protons, and not if they are carboxylates or amines. The physical basis of this surprisingly simple relationship is unknown.

**Dr. Quamar Salih**, Process Analyzer Specialist, Bayer Crop Science.

**Abstract:** Nature makes molecules that are chiral but with no stereocenters. Identifying the presence of chirality is not trivial in these cases. A class of natural products were synthesized and their chirality studies. Finally, they were made via an enantioselective Ullmann etherification using copper.

### Upcoming Events:

#### **ACS Spring 2025 Meeting & Expo**

**Pushing Boundaries. Solving Global Challenges.**

Get ready to learn and network with industry and academia. **San Diego CA & Virtual March 23-27, 2025.** For more info visit: <https://www.acs.org/meetings/acs-meetings/spring.html>

#### **Chemists Celebrate Earth Week**

**Glaciers: Hot Topic, Cool Chemistry!**

Celebrate the International Year of Glacier Preservation and glaciers' role in creating a more sustainable world during April 21-27, 2025, which is Chemists Celebrate Earth Week. Float into the world of glaciers and learn about this “Hot Topic, Cool chemistry!” in the latest edition of *Celebrating Chemistry*. Visit:

<https://www.acs.org/education/celebrating-chemistry-editions/2025-ccew.html> for more information and resources.

#### **ACS MWRM: ACS Midwest Region Meeting 2025**

**October 12-14, 2025, Columbia MO**

Abstract Submission for ACS MWRM opens April 14, 2025! Visit [mwr2025.org](http://mwr2025.org) in the coming months for further information.

# ACS-KC Standing Committees & Chairs

**Please consider volunteering on one (or more) of our committees!  
We welcome your thoughts, ideas, and contribution!**

\*Please contact Gary Clapp ([geclapp424@yahoo.com](mailto:geclapp424@yahoo.com)) if you are interested in one of the committees. Thank you! We would appreciate it, and we welcome your input and assistance!



Check us out on **FACEBOOK**: ACS-KC and **LINKEDIN**: ACS-KC

## **COMMITTEES and CHAIRS**

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PROGRAM.....	Dr. William Gutheil, UMKC
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# ACS-KC Section 2025 EXECUTIVE BOARD MEMBERS

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American Chemical Society  
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2903 Wiltshire Court  
St. Joseph MO 64506