



**2018 Annual Meeting Report  
The 66<sup>th</sup> Meeting of MACTLAC  
Chemistry in the Liberal Arts  
Hillsdale College, Hillsdale, MI  
October 19-20, 2018**

**General Session 1, Friday Afternoon, 1:00 PM**

**Plenary Address**

*Chemistry as Liberal Education*

Dr. Nivaldo Tro, Professor of Chemistry and Chair, Department of Chemistry  
Westmont College  
Santa Barbara, CA

- Good introduction by David Whalen: discussed the purpose of a liberal education to foster a love of learning and knowing, and to develop an understanding of reality.
- Purpose of learning is beyond the individual self, transcendent and extrinsic, not just a means for employment.
- Recognize and strengthen the human desire to know and understand/appreciate the physical universe.
- Cultivate the whole human being.
- Goals:

Instill an awe of nature.

Instill skills and knowledge that cultivate conscientious citizenship.

- Chemistry is “an important source of happiness” – Linus Pauling.
- Chemistry is one avenue by which we can study difficult, fundamental, and philosophical questions.

Quantum mechanics reveals the indeterministic behavior of nature (e.g., Heisenberg Uncertainty Principle).

Chemical bonding is an important area in which scientific models can be evaluated.

- We should continue to teach a fundamental chemistry curriculum, but use better examples/applications.

Controversial societal issues such as vaccines, GMO’s, climate change, and the like provide an opportunity to teach students how to ask the right (relevant and important) questions, as well as to think about options logically and with accurate data.

## General Session 2, Friday Evening, 7:30 PM

### Plenary Address

*Beer: Chemistry, Styles, and Sampling*  
Dr. Christopher Hamilton, Professor of Chemistry  
Hillsdale College  
Hillsdale, MI

No report was submitted for this plenary address.

## General Session 3, Saturday Morning, 8:30 AM

### Plenary Address

*Teaching Research Ethics to Science Students*  
Dr. Brian Coppola, Arthur F. Thurnau Professor and Director, Chemical Science at the Interface of  
Education  
College of Literature, Science, & Arts, University of Michigan  
Ann Arbor, MI

No report was submitted for this plenary address.

### MACTLAC Business Meeting

1. The meeting was called to order at 11:02 AM by President Kim Ha. Kim hoped that all had a good meeting, especially 1<sup>st</sup> time attendees. She also thanked the Hillsdale College Chemistry faculty for being great hosts.
2. The Treasurer's Report for 2018 was presented by Kim Ha, for Mark Sinton, who was unable to attend the meeting. Kim discussed our current balance and the desire to lower it (see Table 1 on the following page). A discussion ensued that this could be done by investing in some software to develop an online payment system. A motion was made to approve the Treasurer's Report and seconded. The motion passed.
3. The Secretary's Report for 2018 was also presented by Kim Ha. Kim discussed membership decline due to culling membership per the Association's By-Laws, which call for removal for members more than 3 years in arrears (see Table 2 on the following page). The membership then discussed a way to set up system to pay for several years in advance. One member asked a question about how members are informed of being behind in dues. A motion was made and seconded to accept the Secretary's Report. The motion passed.

As this Annual Report was being generated, the following answer to the above question was added to this record by Mark Sinton.

*Members should receive a yearly dues statement in the mail from the hosting institution in August or early September. This statement will note if a member is in arrears and by how much. Members can then either pay their dues when they register for a meeting or by sending a check payable to MACTLAC directly to the Secretary-Treasurer, whose address is listed on the dues statement. If a member does not receive a statement by late September, or otherwise needs another copy, they should request a copy by e-mailing the Secretary-Treasurer.*

**Table 1: Treasurer's Report**

Year	2014	2015	2016	2017	2018
<b>Beginning Assets</b>					
Checking	\$8,888.59	\$10,298.66	\$10,865.15	\$9,563.29	\$8,577.40
Savings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total Beginning Assets</b>	<b>\$8,888.59</b>	<b>\$10,298.66</b>	<b>\$10,865.15</b>	<b>\$9,563.29</b>	<b>\$8,577.40</b>
<b>Income</b>					
Dues	\$440.00	\$720.00	\$675.00	\$510.00	\$260.00
Annual Meeting	\$4,255.00	\$2,090.00	\$1,550.00	\$0.00	
Interest	\$10.43	\$11.16	\$10.62	\$9.36	\$9.68
Other	\$0.00	\$0.00	\$0.00	\$6.55	
<b>Total Income</b>	<b>\$4,705.43</b>	<b>\$2,821.16</b>	<b>\$2,235.62</b>	<b>\$525.91</b>	<b>\$269.68</b>
<b>Expenses</b>					
Postage, copying, website	\$143.14	\$164.19	\$329.91	\$132.87	
Annual Meeting	\$3,152.22	\$2,069.93	\$3,207.57	\$948.02	
Placement, Archives	\$0.00	\$0.00	\$0.00	\$0.00	
Other	\$0.00	\$20.55	\$0.00	\$430.91	
<b>Total Expenses</b>	<b>\$3,295.36</b>	<b>\$2,254.67</b>	<b>\$3,537.48</b>	<b>\$1,511.80</b>	<b>\$0.00</b>
<b>Ending Assets</b>	<b>\$10,298.66</b>	<b>\$10,865.15</b>	<b>\$9,563.29</b>	<b>\$8,577.40</b>	<b>\$8,847.08</b>
<b>Asset Change</b>	<b>\$1,410.07</b>	<b>\$566.49</b>	<b>-\$1,301.86</b>	<b>-\$985.89</b>	<b>\$269.68</b>

**Table 2: Secretary's Report**

	2011	2012	2013	2014	2015	2016	2017	2018
<b>Beginning Membership</b>	384	297	287	293	296	253	258	239
<b>New Members</b>	3	25	35	11	2	8	20	6
<b>Members Removed</b>	90	35	29	8	45	3	39	37
<b>Ending Membership</b>	<b>297</b>	<b>287</b>	<b>293</b>	<b>296</b>	<b>253</b>	<b>258</b>	<b>239</b>	<b>208</b>
<b>Member Dues Breakdown</b>								
Emeritus and Honorary members	43	47	47	49	47	50	57	39
Paid up members	86	65	67	70	64	77	80	59
In arrears members	168	175	179	166	142	131	102	110
<b>Total Dues Paying Units</b>	<b>297</b>	<b>287</b>	<b>293</b>	<b>296</b>	<b>253</b>	<b>258</b>	<b>239</b>	<b>208</b>
<b>Member Dues by Year</b>								
Paid up	86	65	67	70	64	77	80	59
One year behind	57	74	83	45	75	29	44	41
Two years behind	64	43	47	54	29	46	21	27
Three years behind	47	58	49	67	38	56	37	42

- The Archivist Report was next presented by Brad Sturgeon. Brad reviewed the MACTLAC Archives site maintained at Monmouth College. They are still in the process of digitizing all of the archived documents. Brad encouraged members to utilize the data. Past meeting programs have been posted, and he hopes to add participant lists as well. Brad noted that the “first MACTLAC meeting” wasn’t actually at Monmouth, and to took place under a different name. The first meeting under the name MACTLAC occurred at Lawrence University. A motion was made and seconded to accept the Archivist Report, which was passed.

The MACTLAC archives continue to be actively maintained in the Hewes Library Archives at Monmouth College. The web page for the Hewes Library Archives can be found at <https://library.monmouthcollege.edu/archives>.

The “Finding Aid” available online contains detailed information about the collection, including links to the digitized content. It can be found at [https://library.monmouthcollege.edu/ld.php?content\\_id=26038236](https://library.monmouthcollege.edu/ld.php?content_id=26038236).

The temporary digital storage continues to be updated as contents continues to be deposited into the Hewes Library Archive system. An index of these items can be found at [http://esr.monmsci.net/wiki/index.php/MACTLAC\\_Archives](http://esr.monmsci.net/wiki/index.php/MACTLAC_Archives).

An overview map of all MACTLAC meeting sites can be found at <https://www.zeemaps.com/map?group=2342609#>.

- The Placement Officer’s Report was then presented by Paris Barnes. Paris began his report by discussing a table showing the number of applicants and positions listed by in the Association's placement service over the last 6 years. Paris encouraged members to send him information about job openings at their institutions. A motion to accept the Placement Officer’s Report was made, seconded, and passed.

<b>Academic Year</b>	12-13	13-14	14-15	15-16	16-17	17-18
<b>Applicants</b>	21	28	34	38	34	30
<b>Positions</b>	24	19	19	20	16	8

Of the positions advertised, six were institutions in the states identified with MACTLAC. Two of the advertisements were from Augustana University in Sioux Falls, SD. All advertised positions were either located by way of advertisements placed with the Placement Service, or electronic notices forwarded to me by various sources. A breakdown of the advertised positions by sub-discipline were: 2 – organic chemistry, 1 – analytical chemistry, 1 – physical chemistry/general chemistry, 3 – biochemistry, and 1 – other (lab/NMR coordinator).

I believed all MACTLAC schools with positions open had their advertisements forwarded to Craig Bieler who placed them on the MACTLAC web page. Review of my records and e-mails show that a position at St. Ambrose University was not advertised on the MACTLAC website because my e-mail to Craig was returned undeliverable. Institutions within the MACTLAC area commonly sent me notices of open positions. I appreciated the notices and attempted to respond quickly when a notice came in to get it out to get it to Craig for posting on the webpage.

Applicants to the Placement Service remained in several groupings – graduate students, Ph.D.’s as post-docs, and some professors at MACTLAC schools looking for positions. Four names were removed from the Placement Service as their e-mail addresses were deemed invalid. There are 30 candidates presently in the Placement Service seeking employment.

The Placement Officer requests the host institution to offer a bulletin board at this meeting to advertise positions currently available. At this year's MACTLAC annual meeting, I want to remind our colleagues that the Placement Service is available on the organization's website and encourage their departments to advertise their open positions.

6. President Kim Ha then announced that Glen Frerichs from Westminster College and Tim Lubben from Northwestern College were granted Emeritus status. Kim asked that Mark Sinton mail Glen's and Tim's Emeritus status certificates as neither was in attendance at the meeting.
7. Kim Ha next introduced the new state representatives for Indiana (Sarah Wilson from the University of Evansville) and Michigan (Kelli Kazmier from Hillsdale College).
8. Kim Ha opened the floor for nominations for the Association's next President. Brian Kamusinga was nominated. As there were no other nominations, Brian was elected by acclamation.
9. After the election, a motion was made to have the Secretary-Treasurer send the following letters of thanks. The motion was seconded and passed.

Outgoing Officers: Kim Ha

Outgoing State Representatives: Michael Slade (IN Rep.) and Mark Nussbaum (MI Rep.)

Host Institution: Hillsdale College

Host Organizer: Mark Nussbaum

Others: None

10. James Wollock from St. Catherine University in St. Paul, Minnesota, invited everyone to their campus on October 10<sup>th</sup>-12<sup>th</sup> for next year's meeting. The theme of the meeting will be the chemistry of art restoration.
11. President Kim Ha reviewed for the Association future meeting sites.

2020: North Central (Central)

2021: ? (East)

2022: ? (West)

13. Kim Ha then handed the Business Meeting off to the incoming President, Vince Hradil.
14. Vince Hradil asked the Association if there was any other business, during which several announcements were made.

Brad Dr. Brad Sturgeon informed attendees about the MACTLAC Facebook page. It is a , public page but you are required to be part of group to post.

A brief discussion was had concerning the handoff of MACTLAC Banner to the folks at St. Catherine University.

Matthew Young requested that attendees fill out an evaluation before they leave.

Dr. Coppola's slideshow from the morning's plenary session will be posted at a later date.

Attendees were reminded that the ACS Great Lakes Regional meeting is scheduled for the 1<sup>st</sup> week in May, 2019, in Chicago area. All were encouraged to participate.

15. No other business being brought forward, a motion to adjourn was made, seconded, and passed.  
The meeting adjourned at 10:31 AM.

Respectfully submitted,  
John Morris for Mark Sinton  
MACTLAC Secretary-Treasurer

## Discussion Groups

### Analytical Chemistry

Friday, October 19<sup>th</sup>, 2018

4:20-5:20 PM

Mark Nussbaum, Hillsdale College, Session Leader & Recorder

Present: Mark Nussbaum (Hillsdale College), Vince Hradil (Concordia University of Chicago), Paul Schmitt (Wabash College), Kevin Metz (Albion College), John Kirk (Carthage College), Becky Sanders (North Central College)

Those present discussed what analytical courses they teach and how those courses are structured. There is quite a range in how quantitative analysis and instrumental analysis courses are handled. For instance, Wabash does not have a quantitative analysis course and instead folds the material into General Chemistry II. However, Kevin from Albion argued that a second exposure is critical because juniors don't remember it all from General Chemistry. Another unique way instrumental analysis is handled can be seen at Carthage College where the lab for Instrumental is part of an Advanced Integrated Lab that pulls together labs from Instrumental Analysis and Physical Chemistry.

Then, a discussion ensued about how much coverage of statistics is needed. Most schools represented in the session do not require a standalone statistics course for their chemistry majors. Since Wabash doesn't have a Quantitative Analysis course, Paul uses a couple of MatLab assignments early in the semester to teach statistics and then reinforces the ideas throughout the semester. Both Albion and North Central Colleges use the penny lab early in the semester to teach students how to use Excel for statistical tests. There was a brief discussion about if there is an easy way in Excel to calculate  $S_x$ , but nobody knew of one. The differences in statistical terminology taught in chemistry courses versus biology courses were discussed. Is it a disservice to students to use terminology like t-tests, 95% confidence intervals, etc., rather than terms biology uses like one and two tailed tests and p and alpha values? In general, the consensus was that it makes the most sense to educate students on how different disciplines use different terminology to discuss similar concepts.

We discussed how much hands-on time students spend doing titrations in their college coursework. Albion have a total of 21 hours hands on with the buret – is that too much since students don't likely spend that much time on any other technique. John Kirk suggested to not focus on the fact that they are doing so many titrations, but the transferable skills should be focused on like accuracy and precision. Titrations are also a great example of stoichiometry. The group also agreed how vital it is to make sure students can correctly make analytical solutions.

Another discussion covered how much instrumentation should be taught in quantitative analysis since not all students take instrumental analysis. The group agreed that class size can be a limiting factor, but that most typically have a chromatography experiment, use pH members, and a couple of spectroscopy experiments. Vince talked about how his quantitative analysis course has a different emphasis because the majority of students in his class are secondary education majors.

Someone suggested that ultimately industry is more interested in having employees who understand the science behind using instruments rather than just knowing what buttons to push.

The conversation then shifted to teaching instrumental analysis. Several faculty members mentioned that they take students to R1 institutions on field trips occasionally to see instruments and do experiments using mass spec techniques like MALDI. Another faculty member suggested finding good video tutorials about how some instruments work. Paul asked how to avoid teaching instrumental analysis as simply a march through the instruments. Kevin mentioned he's taught a lab where students synthesized and functionalized silver nanoparticles. They would then use techniques like size exclusion centrifugation and chromatography to separate various fractions of the reaction mixtures before analyzing nanoparticle size spectroscopically. He found this to be an effective way to have students work on a single project using multiple techniques. Then, students would conduct an assay with the nanoparticles and analyze them again to see if they had changes. Others suggested having labs where students rotate through experiments using various instruments.

### **Liberal Arts (Core) Chemistry**

Friday, October 19<sup>th</sup>, 2018

4:20-5:20 PM

Matthew Young, Hillsdale College, Session Leader & Recorder

Attendees introduced themselves and then discussed what core looks like.

- Newer teachers tend to look for non-majors.
- A couple of participants teach other cross-disciplinary courses with similar issues of students working outside their comfort zone.
- Other ideas for non-major topics: food chemistry, chemistry for art, and water chemistry.

What is the purpose or end goal of a general education style chemistry course?

- Can be very topic specific. Makes content easy to focus. How you frame the course can make it easier or harder
- Can mean some content doesn't get covered, but that generally isn't an issue.
- Fundamentals of problem-solving, deciding on the validity of something, and deciding whether something is evidence based.
- Maybe just simply and fundamentally change the attitude of students such that all students at the end of college think "I liked my chemistry course" rather than "I hated chemistry" or "I can't do it".
- Understand enough, regardless of major, so that students can use some of the guiding principles or tools to use them in their lives.
- Teach appreciation for how scientific method and experimentation are applied so that students develop an appreciation for science and a belief in scientific results.

The non-majors course can free up time and pressure to cover certain content – the questions of what we want to cover is more important in that context.

What are some ways of dealing with student thinking that our course is forced on them and who often lack intrinsic motivation?

- Take them into their own community and give them context to their lives.
- Go to a stream and talk about effects of various kinds of runoff – salt from roads, farm runoff, acid mining, for example.
- Make sure as instructors we have and show great motivation for our discipline.

- Make sure we have the self-care needed to do that.
- A non-majors course is good for this because we can pick topics we find fun and have a fresh look at since we don't normally get to do so.

Response to Tro's plenary address:

- There is validity in consumer and production value to chemistry – it is a useful hook for students.
- We want to make sure we give context to information and show that there is creativity in science just as much as literary or visual arts.

The process of revisiting a topic and improving and learning new things crosses disciplines.

Tackling big questions:

- Examples: ethics of making chemicals for warfare, what GMOs are, etc.
- If there is a class to do it it's this one because there is time.
- Reminder that there is so much we don't know – good to remind students that science is ongoing.
- Could be a failing of science textbooks that things seem clean and complete.

Other challenges or tools to discuss?

- Find a topic specific hook to get students personally engaged.
- Use a humanities-based approach like a discussion class section.
- Get students to think about writing about chemistry.
- Roald Hoffman "The World of Chemistry" – also his books ("The Same and Not the Same", for example).
- Carl Djerassi's and Roald Hoffmann's play "Oxygen".
- Philip Ball's "Bright Earth".

### **Inorganic Chemistry**

Friday, October 19<sup>th</sup>, 2018

4:20-5:20 PM

Paris Barnes, Millikin University, Session Leader & Recorder

1. What do you teach in inorganic chemistry?
  - a. Hillsdale College does one semester of Advanced Inorganic Chemistry, uses Meissler and Tarr as their text, and teaches about half that's on the ACS Inorganic Chemistry Exam. Students have to write a paper and lead a discussion on a topic that was not discussed in class (~5 lit. papers from new primary literature).
  - b. Luther College – got a copy of the 2014 ACS Inorganic Exam and reviewed it to see what the important topics were (inorganic chemists are polled by ACS exam writers to see what should be on the exam). Three broad areas were revealed by this review: coordination chemistry, physical inorganic chemistry, and organometallic chemistry. They use parts of the Housecroft and Sharpe text. Their new inorganic chemistry course has been reconfigured to incorporate the organometallic chemistry. They also have a seven-week solid-state chemistry course.
  - c. Millikin University is changing to a two-semester inorganic chemistry course, which gives faculty a chance to diversify what is taught.

2. Requiring students to learn information independently and presenting knowledge in writing and orally is important. Inorganic chemistry requires students to have a wide array of knowledge to explain many phenomena, including interdisciplinary phenomena. One of the graduate students present expressed concerns about the general chemistry foundation and its shakiness.
3. At small universities, inorganic professors teach general chemistry frequently. The Hillsdale faculty member uses coordination chemistry in parts of his examples. He suggested that young professors can organize their general chemistry courses in ways that incorporate inorganic chemistry.
4. Do we incorporate inorganic chemistry into labs? Hillsdale does synthesis and analysis of inorganic compounds as part of its three credit inorganic course. Luther does inorganic lab as part of its January term. Millikin does not have an inorganic chemistry lab yet.
5. Graduate students were asked why they were interested in teaching at primary undergraduate universities. One was interested in the holistic approach to learning. They also said that the liberal arts experience and one-on-one interactions are important. Another grad student said that it is important to train the next generation of students, and that the one-on-one interactions are very important. Primary undergraduate universities allow students to major in interesting combinations (e.g., chemistry-music double major). Another graduate student stated that he found it fulfilling to watch students grow and gain skills. Small universities and colleges are family-like. The personal connection is incredibly important.
6. How many chemistry majors do the different institutions have? Hillsdale has ~12 chemistry majors.
7. The graduate students were asked what should be taught in an undergrad inorganic course.
  - a. Nanoscience/nanochemistry (focus in solid-state chemistry)
  - b. Inorganic materials; solution phase chemistry is shrinking
  - c. Spectroscopy (UV-vis; non- $^1\text{H}$  and  $^{13}\text{C}$  NMR – other nuclei) and mass spectroscopy
  - d. Bioinorganic chemistry
8. Which division of chemistry should introduce EPR? Used largely in bioinorganic groups and in organometallic groups with redox active ligands.
9. What are your other obligations outside of teaching inorganic chemistry?
  - a. Look strongly at teaching load when considering jobs. 3/3 load are most desired.
  - b. ACS-CPT certified degree; feels good to be part of an ACS certified degree.
10. How important is post-doc appointments in the job search?
  - a. Luther – very important.
  - b. Hillsdale – most faculty have done postdocs and they use teaching and research presentations to evaluate faculty potential.
11. What sorts of activities can professors do to get students engaged in inorganic chemistry?
  - a. Ferrofluids
  - b. MO theory – liquid  $\text{O}_2$
  - c. Models

## Physical Chemistry

Friday, October 19<sup>th</sup>, 2018

4:20-5:20 PM

Craig Bieler, Albion College, Session Leader & Recorder

The session began with introductions and text survey. A wide range of texts are currently being used in our classes: two are using Atkins, two are using Engel and Reid, and one each using Ball, Laidler/Meiser/Sanctuary, McQuarrie and Simon, and a combination of Chang for thermo and McQuarrie for quantum.

The group then moved into a discussion about the structure of their physical chemistry courses. All are currently using a two semester sequence with thermodynamics covered in one of the semesters and quantum mechanics covered in the other semester. A majority also cover kinetics in the same semester as thermodynamics. Several mentioned that it was not critical that their students take these courses in a particular order; however, most students take the thermo course first and the quantum course second. Most of these courses have a lab associated with it although several faculty provide a separate course grade for the lab section. A few unique approaches to covering content include: a separate spectroscopy course which spans both physical and analytical concepts, and a separate course covering symmetry and qualitative MO theory.

The question arose regarding course content – what should be in our courses and what may need to be ‘cut’ in order to cover other material in more depth. Topics from thermodynamics that some have not included recently are Maxwell’s Relations, in depth discussion of acid/base equilibria, electrochemistry, statistical thermodynamics, and equipartition theory. In quantum mechanics it was suggested that the qualitative construction of molecular orbitals not be covered so that more molecular modeling be included in the course.

The group then summarized some of the non-text resources that they use in their courses. WebMO and molecular modeling programs were mentioned several times as an important component of our courses. Data analysis using Excel, IGOR, Mathematica, Origin, and/or Maxima is necessary in the laboratory portion of the courses. The NIST Chemistry Webbook and the NIST Kinetics database are useful online resources for physical data on atoms and molecules and chemical reactions. And finally the Berkeley Madonna software program was mentioned as a useful resource for generating and solving kinetics equations for multi-reactive systems.

Finally, we were treated to Brad’s impression of Don McQuarrie.

No reports were submitted for the following sessions:

Friday, October 19<sup>th</sup>, 2018, 2:45-3:45 PM

**Meet the Speaker: Nivaldo Tro**  
**Telling Stories to Teach Science**  
**3-D Printing for Chemistry**  
**Chemistry of War**  
**Integrating Computational Chemistry into the Curriculum Using WebMO**  
**Our Favorite Demos for the Classroom**

Friday, October 13<sup>th</sup>, 2017, 4:20-5:20 PM

**Biochemistry**  
**General Chemistry**  
**Organic Chemistry**

Saturday, October 20<sup>th</sup>, 2018, 9:35-10:35 AM

**Meet the Speaker: Brian Coppola**  
**Telling Stories to Teach Science**  
**3-D Printing for Chemistry**  
**Chemistry of War**  
**Integrating Computational Chemistry into the Curriculum Using WebMO**  
**Discussion Panel: Pursuing a Career as a College Professor**

### **Vendors and Sponsors**

The organizers of this year's meeting wish to express their thanks to the following vendors and sponsors:

MicroLab  
Nanalysis  
Thorn-Smith Labs  
WebMO  
Flinn Scientific

### **MACTLAC Officers, State Representatives, and Other Association Personnel for 2019**

#### **Officers:**

Past President:	Kim Ha	St. Catherine University
President:	Vince Hradil	Concordia University Chicago
President Elect:	Brian Kamusinga	Principia College
Secretary/Treasurer:	Mark Sinton	University of Dubuque

#### **State Representatives:**

Illinois:	Joseph Sumrak	Concordia University Chicago
Indiana:	Sarah Wilson	University of Evansville
Iowa:	Matthew Zart	Wartburg College
Michigan:	Kelli Kazmier	Hillsdale College
Minnesota:	Christopher Jordan	Saint Mary's University of
Minnesota		
Missouri:	Bernie Hansert	Westminster College
Wisconsin:	John Morris	Marian University

#### **Other Association Personnel:**

Archivist:	Bradley Sturgeon	Monmouth College
Placement Officer:	Paris Barnes	Millikin University
Web Master:	Craig Bieler	Albion College

### **MACTLAC Weather Report**

It has become a tradition to mention something about the weather surrounding the MACTLAC meeting.

#### **Friday's Weather**

Friday's weather was mostly sunny, with a high of 57°F (14°C), a low of 43°F (6°C), and 56% humidity. There was a light wind at 5 mph (8 kph) out of the SSW, with 7 mph (11 kph) gusts. The

barometric pressure was at 29.95 inHg (760.7 mmHg) at the beginning of the day and then slowly decreased. There was no precipitation.

### **Saturday's Weather**

Saturday's weather was cloudy. The high for the day was 53°F (12°C), and the low was 29°C (-1.7°C). The humidity was a higher than on Friday at 66%. There was only a bit of wind during the day, 2 mph (3 kph) out of the WNW with an occasional gust of 5 mph (8 kph). The barometric pressure started the day at 29.57 inHg (751.1 mmHg) and then began to slowly rise. As with Friday, there was no precipitation.

### **MACTLAC News**

#### **Placement**

MACTLAC's Placement Officer maintains two lists: 1) a list of faculty positions available within the MACTLAC member colleges, and 2) a list of candidates seeking positions with member colleges. Our goal is to ensure that candidates are in contact with the colleges having positions available. If you are currently recruiting new faculty, are looking for a teaching position at a Liberal Arts college, or have any other questions, please contact the Placement Officer. A copy of the list of available positions can also be found at [www.mactlac.org](http://www.mactlac.org).

#### **Website**

The address for the Association's website is [www.mactlac.org](http://www.mactlac.org). Feel free to visit this site to get information on our organization and the services that it offers. Be sure to check out the links page as there are some things on that page that may be of interest to you.

#### **Honorary and Emeritus Membership**

Honorary membership is granted only by a unanimous vote of the Executive Council, and shall be reserved for those persons who have rendered extraordinary service to the Association or who have made noteworthy contributions to the improvement of chemistry teaching in member colleges. To be considered for honorary status, the candidate must be nominated by a colleague in a letter submitted to the Secretary-Treasurer at least one month prior to the Annual Meeting at which the letter is to be considered by the Executive Council. A second letter of support from another colleague should also be submitted at least two weeks before the Annual Meeting to the Secretary-Treasurer. These letters should attest to the criteria needed for honorary membership status. An Honorary member will be excused from further payment of dues and will be listed as an Honorary member.

Emeritus membership is reserved for any person who has been an active member of MACTLAC for 10 years and who has retired from teaching. An Emeritus member will be excused from further payment of dues and will be listed as an Emeritus member. Anyone seeking emeritus membership should request it, preferably by sending a letter to the Secretary-Treasurer of MACTLAC.

#### **2019 Meeting**

St. Catherine University in St. Paul, MN would formally like to invite you to MACTLAC 2019 on October 11<sup>th</sup> and 12<sup>th</sup>, 2019. The theme for this year's conference is The Chemistry of Art and Artifact Restoration. There will be speakers on this topic from both the Minnesota Historical Society (Thomas Braun) and the Science Museum of Minnesota (Rose Kubiawicz). In addition to these plenaries a key note address will be given by Dr. Irv Levy, Director of the Beyond Benign Green Chemistry Education Group.