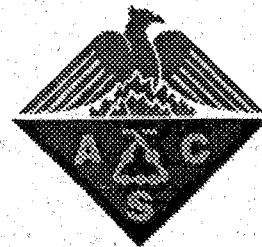




Richland Section
American Chemical Society

**FAMOUS MAD HATTERS**

Dr. James F. O'Brien
Chemistry Department
Southwest Missouri State University
Springfield, MO 65804

Date: Tuesday, October 6, 1998

Time: 7:30p.m.

Place: Room L-102
Library Building
Columbia Basin College
Pasco, WA.

Abstract: The origin of the phrase "Mad as a Hatter" is due to the incidence of odd behavior on the part of workers in the early felt hat industry. Their odd behavior, or "madness", was the result of mercury poisoning contracted on the job.

This presentation will discuss the recent mercury analyses done on the hair of Isaac Newton; the deterioration of the great mind of Michael Faraday; the bizarre behavior of Boston Corbett, the man who shot John Wilkes Booth, the assassin of Abraham Lincoln; and the possibility that mercury poisoning affected the behavior of other famous people such as King Charles II of England, the author William Makepeace Thackeray, and a number of famous artists such as Rubens, Renior, Duffy, and Klee.

"Mad" women in History have been more difficult to locate. One eminent female whose health was affected by chemical exposure was Clare Booth Luce.

Her health problems while serving as U.S. Ambassador to Italy in the 1950's will be discussed.

About the Speaker: James F. O'Brien was born in Philadelphia on July 4, many years ago. He received a B. S. in Chemistry from Villanova University and a Ph.D. in Chemistry from the University of Minnesota. Following postdoctoral work at the Los Alamos National Laboratory, Dr. O'Brien joined the faculty at Southwest Missouri State University.

In 1992 he received the Southwest Missouri State University Excellence in Teaching Award; in 1994 he received the University's Excellence in Research Award; and in 1996 the University named him Distinguished Scholar.

His recent research interests have centered on molecular orbital calculations of the properties of organometallic and inorganic species. He also devotes time to studying the History of Chemistry.

His leisure time interests in their current order of preference are: golf, bridge, Sherlock Holmes, Civil War history, and walking (formerly jogging).

If you wish to have dinner with the speaker before the meeting, please call Anna Cavinato at (541) 926-3561 or e-mail: cavinato@eou.edu.

Next Meeting:

**Metal – Metal Multiple Bands:
Inorganic Functional Groups**

Dr. Malcolm H. Chisholm

Date: Tuesday, November 10, 1998

Time: 7:00 p.m.

Place: Room L-102

Library Building

Columbia Basin College

Pasco, WA.

is Saturday AND Sunday October 24th and 25th and involves easy interactive chemistry demonstrations for kids ages 4-12. As in years past, we expect approximately 13,000 kids and parents attending the Family-A-Fair, and the organizers have told us this is the most popular booth with the kids because of the hands-on activities. I want to emphasize that the activities are VERY simple, so much so that adults without a chemistry background can assist; and indeed they have. In fact the most favorite demo, from both the kid's and chemist's perspective is making SLIME. We have all the demos set up ready to go, and just need folks to man (and woman) the booth. If you're interested in helping out with Family-A-Fair, please contact either me at 376-6949 or Rich Lucke at 375-6847-I have a sign-up sheet for the different time slots over both days.

A second activity for which we need member involvement, is high school visitation. This activity has been very well received by the local area high schools and gives the students a reality check on what related careers in science entail. Our primary purpose in going to the schools is to show the students how most scientific disciplines/careers require knowledge of fundamental chemical principles. Most of these students are already interested in science (we go to Chemistry classes), so we don't really need to convince them that science is fun like we do with the younger kids. The take-away message is twofold: a) if you're going into science, you need to have a good background in chemistry, and b) getting a degree in chemistry provides a myriad of career options-not everyone becomes a bench chemist. Bringing along some simple things to "show and tell" usually captures their interest. No matter what field of chemistry you're in, there's something about it that will interest the students, even if you're not currently working on a cure for cancer. If you're interested in doing the career talks, please contact me as soon as possible. Those will be either during the week of 10/26 or the week of 11/2.

Sam Bryan - Chair, Richland Section

A Note from the Chairman

It is that time of year again to think about National Chemistry week, and all the activities that go along with it.

On behalf of the Richland Section of the American Chemical Society, I would like to encourage you to consider assisting our section in participating in this year's National Chemistry Week (NCW) activities. This year we are also kicking off the International Chemistry Celebration. Planned for 1999, the mission of the International Chemistry Celebration (IChC) is to enhance the public appreciation of chemistry and its positive contributions to everyday life throughout the world, and to enhance communication among the chemical societies and organizations worldwide.

NCW is an outreach event geared toward public understanding and interest in chemistry. The Richland section has been sponsoring NCW exclusively in this region since 1987. Initially a biannual event, NCW has been held every year during October or November since 1993.

The section usually organizes a wide variety of activities for NCW. The highlight has always been our interactive chemistry experiment demonstrations at Family-A-Fair. This year as in the last two years, we will have a demonstration booth. Family-A-Fair

Winner of the ACS Chemistry Award at the 49th International Science and Engineering Fair

Our section has the distinction of having a winner of the ACS Chemistry Award at the 49th International Science and Engineering Fair, Fort Worth Texas, May 1998.

Stuart Ibsen was awarded Third Place in Chemistry for his work entitled "The Effects of Micro-Gravity on Semiconductor and Protein Crystals". Stuart has been recognized over the last several years for his contributions at the Mid-Columbia Science Fair (MCSF) held in the Tricities each Spring.

Stuart was mentored in his work by Sue Rittenhouse, his Hanford High School chemistry teacher. Sue Rittenhouse also received the Northwest Regional High School Chemistry Teacher award for 1998. Sue received her award during the Northwest Regional meeting (NORM98) this June.

Dr. Glenn T. Seaborg in Hospital.

In a sad note from the Boston ACS Meeting last month, Dr. Glenn T. Seaborg, our Keynote Speaker for NORM 98, suffered a stroke on Monday, August 24. Dr. Seaborg has been in the hospital in Boston since that time. The Program Chair for NORM 98, Tim Hubler, had met Dr. Seaborg on the prior day at the 75th Anniversary Celebration commemorating the founding of C&E News. At that celebration, Dr. Seaborg received a special award from the ACS, along with 23 other preeminent chemists, for important contributions to the chemical Sciences during this century. All members wanting to send cards or other correspondence to him are encouraged to do so; let him know how much you enjoyed his visit to the Tri-Cities last June. Please send your materials to Tim Hubler, Pacific NW National Laboratory, P.O. Box 999, Richland, WA 99352 (PH: 373-0249), and he will forward them to Dr. Seaborg.

216th National ACS Meeting: The Councilor's Report

Meeting Registration Fee: It was moved and seconded that the meeting registration fee for national ACS meetings be increased from \$225 to \$235 starting in 1999. I was one of the majority of the councilors to vote "no" on this proposal. The vote was 166 yes and 276 no. The Board of Directors can overrule the council on this proposal, however.

Inorganic Division Voting: The Inorganic Division is on a trial period for voting for their officers by means of on-line voting. If this project is favorable after a significant trial period, it may extend to national ACS elections by this method.

Chemical and Engineering News: C & E N can be viewed on the web free of charge for a trial period. It can be found at acs.org. Give it a try!

New Journals: The Governing Board for Publishing has approved two new journals, Organic Letters and Journal of Combinatorial Chemistry and a new magazine, Modern Drug Discovery: Chemical Perspectives for Today's Scientist.

Redistricting ACS Regions: There will be a proposal to redistrict the six regions of the ACS. The current population shift in the United States is from the northeast to the southwest. Chemists tend to be in that shift also. The size of the regions is mandated by the bylaws of the ACS to be within plus or minus 10 per cent of the average of the six regions. Presently, the number of chemists and chemical engineers in a couple of these regions are nearing this limit. The proposal will make the following changes in Region VI, the one we are in. The state of Colorado will be moved to Region V as will part of Texas.

Attendance: As of Thursday, August 27, the attendance at the meeting was 16,000 with 6,400 papers presented.

Richard A. Hermens



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Eastern Oregon University Chemistry Club

The American Chemical Society awarded the Eastern Oregon University Chemistry Club a "Commendable Award" for their participation, activities and outreach to the general public for the 1997-1998 academic year. The award will be presented at the National Meeting of the ACS in Anaheim in March of 1999. Additionally, the ACS awarded the Chemistry Club a \$215 grant on their proposal for assisting underrepresented minorities in science. This is a matching grant.

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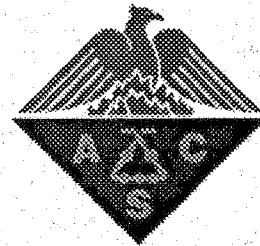
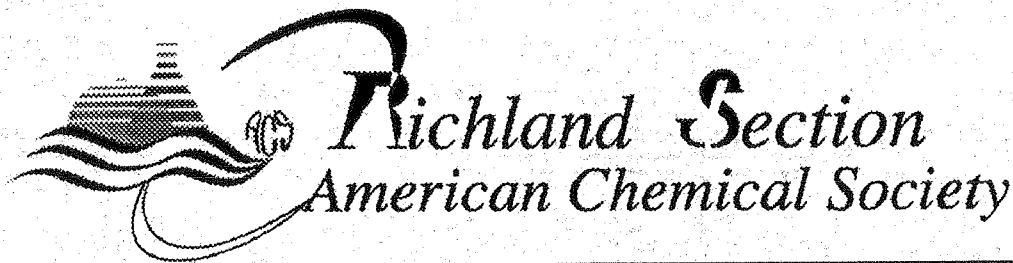
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<http://www.pnl.gov/acs/>



**METAL-METAL MULTIPLE BONDS:
INORGANIC FUNCTIONAL GROUPS**

Dr. Malcolm H. Chisholm
Chemistry Department
Indiana University
Bloomington, IN 47405

Date: Tuesday, November 10, 1998

Time: 7:30p.m.

Place: Room L-102
Library Building
Columbia Basin College
Pasco, WA.

Abstract: The recognition that transition metal elements may form multiple bonds to each other provides the basis for a new and exciting development in coordination chemistry. Molybdenum and tungsten form literally thousands of compounds of general formula M_2L_n where a central M_2 unit is surrounded by a group of ligands L . The metal atoms may be united by quadruple, triple, double, single bonds and even bond orders of 1.5, 2.5, 3.5 are known. The electrons located in M-M bonds provide for an extensive redox chemistry and reactions leading to stepwise changes in M-M bond order are now known which parallel those in organic chemistry. The dinuclear center may be used for the development of cluster syntheses: $M_2 + M' \rightarrow M^2M'$; $2M_2 \rightarrow M_4$, etc. or for incorporation into polymetallic chains $M'-M_2-M'$. The dinuclear center also provides a template for coupling reactions involving small unsaturated molecules and may, in some

instances, provide a starting point for the syntheses of new mononuclear compounds by cleavage of the M-M bond. These and other aspects of the chemistry of dinuclear compound with M-M multiple bonds will be presented to support the theme of "inorganic functional groups".

The Speaker: Dr. Chisholm received his B.Sc. and Ph.D from London University. The latter in Inorganic Chemistry in 1969. He joined the Chemistry staff at Indiana University in 1978. He has been a Distinguished Professor of Chemistry at Indiana University since 1985. His research interests include: Coordination, organometallic and metalloorganic chemistry of the transition elements. Catalysis. The chemistry of low pressure chemical vapor deposition of thin films of metals, metal-carbides, -nitrides and -oxides. The synthesis and molecular design of 1-dimensional metalloorganic polymers and metallomesogens. Single site metal alkoxide catalysts for ring opening polymerizations of cyclic ethers and esters.

He has received many honors during his distinguished career including the Royal Society of Chemistry Centenary Lecture and Medalist, London 1995.

If you wish to have dinner with the speaker before the meeting, please call Anna Cavinato at (541) 962-3561 or e-mail: cavinato@eou.edu.

Next Meeting: There is no scheduled ACS meeting for December or January

A Note on NORM' 98

Karen Grant indicated that we received an award plaque from National ACS for NORM '98 along with a letter saying that this was one of the best NORM's they have ever had.

Some statistics of interest:

The attendance at NORM '98 was 470. 40 different colleges and universities were represented from 10 different states. Five National Laboratories (PNNL, INEEL, LBNL, LLNL, and ANL) were represented. Over 40 companies were represented. 22 vendors took part in the Exposition. 196 people attended the 50th Anniversary Banquet and Celebration. Teachers from seven different high schools (a couple on the west side of the state) attended. 54 people attended the EMSL module tours (note: Many attended more than one tour.). 39 students participated in the Procter & Gamble-sponsored Analytical Chemists in Industry Short Course. 43 attended the Women Chemists Luncheon. 47 registered for the Hanford Site Bus Tour. 40 people went on river cruises on the Columbia. 10 people went on a winery tour and progressive dinner up the Yakima Valley.

Eastern Oregon Chemistry Club

Dick Hermens reported last month that the American Chemical Society awarded the Eastern Oregon University Chemistry Club a "Commendable Award" for their participation, activities and outreach to the general public for the 1997-1998 academic year. Upon further reviewing the reports, Eastern's Chemistry Club was awarded an Outstanding award.

Included in some information Dick received from National was some Great Ideas for NCW!" Included was the following:

"Chemist in the Classroom." The Richland section organized Career Day events at local high school chemistry classes as part of NCW. Chemists visited the schools and discussed their careers, a typical work day, salaries, and advancement possibilities. A

number of the chemists also performed chemical demonstrations."

Note from the Chair:

This will be the last message from me as Chair of the Richland Section of the ACS. My term closes at the end of December, which bring two items to mind. We have elections coming up for the future, and the past year to remember.

We have three elected Board positions up for election this year in the Richland Section ACS. Remember to vote for your candidate of choice for Chair-Elect, Secretary and Treasurer. The Chair-Elect position is a three-year term which includes serving as Program Chair in the first year, serving as Chair during the second, and hanging around as a source of expert advice during the third year as past-Chair. The Secretary is in charge of keeping minutes of meetings, updating the Section roster, and keeping the Section records. Therese Clause has done a great job and has agreed to run for another term as Secretary. The Treasurer is in charge of the Section finances and keeping up-to-date budget records for the section. We should thank Larry Bowman for serving in this position for the last three years. All the positions of the Board require commitment of those who serve. We have regularly scheduled Board meetings to hash out the direction of the section, as well as ACS tour-speaker meetings and special events such as National Chemistry week, and Science Olympiad.

As I make the transition in the next couple of months into the Past-Chair status, I can say that the time served has been enjoyable and worthwhile for me and also for the community we serve. This last year our section has hosted the Northwest Regional Meeting (NORM'98) at Columbia Basin College; 232 papers were presented and 470 were in attendance. This meeting was a great success and was very well organized and performed. We can thank Tim Hubler (NORM Program Chair) and Karen Grant (NORM General Chair) for a job well done, as well as the many (too many to name individually) who served on the organizing committees and served as chairs and organizers of the many technical sessions.

A second huge success this year was the National Chemistry week activities at the TRAC center. There were approximately 14,000 in attendance over two days (October 24th and 25th) and every kid was at our booth... maybe twice. There were chemical demonstrations at the booth as well as a chemical magic show on center stage performed by the ACS student affiliate group from Eastern Oregon State University. We handed out chemistry literature, beak buddies, balloons, 18 gallons of putty and 32 gallons of

SLIME! Thanks to all who volunteered and served during this event... Rich Lucke, Eric Wyse, Tim Hubler, Karen Grant, Greg Eiden, Megan Lerchan, Sam Bryan, Veronica Menders, Chris Neilson, Tim Bays, Melanie Mormile, Reese Clause, Greg Trent, Jamee Dawson, Scott Allen, Anna Cavinato, and the Eastern Oregon State University student affiliates. Special thanks to Battelle for underwriting the event, and to Columbia Basin College (as always) for helping with the supplies.

In closing, I would like to thank you all for making 1998 a good and productive year for the Richland Section of the American Chemical Society.

Sam Bryan
1998 Richland Section Chair

National Chemistry Week Activities in La Grande

During the first three weeks in November faculty at Eastern Oregon University along with the ACS Student Affiliate Chapter will be sponsoring a color poster competition in all elementary schools in the La Grande district. The theme of the poster contest is "A World of Color" and it aims to make children aware that color is important in chemistry and that a chemical change has probably occurred if the color of a substance has changed. Children are invited to share their enjoyment of color and the changes color can undergo by designing a poster which illustrates the use of color changing markers. Over 300 sets of changing color markers will be made available to schools from contributions from the Richland section and Eastern Oregon University. A personal invitation to all teachers is currently being mailed. Anna Cavinato has offered to introduce the coloring activity by visiting classrooms and providing demonstrations of how color is related to chemistry.

Each child will receive a certificate of participation. In addition chemistry and art students from EOU will identify three winners from each category (K-2, 3rd-4th and 5th-6th grade). First prize winners will enter a national contest and their poster will be displayed at the 217th ACS National Meeting in Anaheim. The national winner will receive a \$1000 saving bond or a home computer. The teacher of the National Winner will receive a computer for use in the classroom. Honorable mentions will receive a \$500 saving bond. Local winners will receive additional prizes and will be recognized along with their teachers at a ceremony that will be held at Eastern in early January.

In addition to the coloring contest, the Student Affiliates will join "A Global Salute to Polymers" by displaying common items made of polymers along with the polymer molecular structure. The display will be located on campus in the Pierce library and will be available through the month of November.

CALL FOR PAPERS NORM'99 IN PORTLAND OREGON JUNE 20 - 23 1999

Deadline for abstract submission: February 5, 1999

You are encouraged to submit abstracts electronically from our web site <http://chem.pdx.edu/~wamserc/NORM99/>

Written abstract submissions should be sent to the Program Chair using standard ACS abstract forms.

Registration information will be posted on their web site and published in Chemical and Engineering News in April.

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