Reza’s Restaurant
432 West Ontario St.
Chicago, IL
312-664-4500

DIRECTIONS TO THE MEETING
Reza’s Restaurant is located in the trendy River North section of Chicago. From the “burbs” or O’Hare, head downtown via the Eisenhower Expressway (I-290), the Kennedy (I-90), the Edens (I-94), or the Dan Ryan (I-90/94).

From the I-90/94, take the exit at Ohio Street (east). Stay to your left as you will need to immediately turn left at the end of the Ohio St. feeder ramp, which is Orleans St. Pay attention here and get into the left turn lane on Orleans and take the far left turn onto Ontario Street. (Note: Do not take the close left turn back out to the expressways.) Reza’s is at the end of the block.

If you are coming from the area of Loyola, Northwestern, or University of Chicago, take Lake Shore Drive to Ontario. Go west on Ontario directly to the restaurant.

PARKING: Reza’s has valet parking and there is also limited metered parking on the street.

TOPICAL GROUP 5:30 - 6:15 P.M.
“Space Weather”, presented by Eileen Wild

Abstract: The sun’s atmosphere consists of a photosphere and corona which influence our every day activities. Coronal mass ejections (CME) are responsible for the auroras, disruptions to our radio and other electronic communications, as well as fluctuations in electric power lines. Knowledge of the sun is today’s topic.

One of the educational arms of NASA is located at DePaul University. Through various educational programs, speakers, and field trips our government is trying to educate the public about NASA’s accomplishments. A core of teachers was chosen for their interest in space science to facilitate this effort. Eileen will talk about how data acquired by the many NASA satellites can be integrated into a high school or junior college science curriculum. She will also present some of the programs NASA has to offer the educational community.

Eileen Wild has a B.S. in Physics from DePaul University, a Masters in Physics from Northeastern University, and has both elementary and high school teaching certificates.

SOCIAL HOUR: 6:00-7:00 P.M.
Cash Bar available. A variety of traditional Persian vegetarian appetizers will be served buffet-style. Appetizers include pita bread, hummus (chickpea, garlic, lime juice dip), grilled mushrooms, dolmeh (stuffed grape leaves), baba ghanoush (roasted eggplant) and other vegetable specialties.

DINNER 7:00 P.M.
Menu: Get ready for a wonderful dining experience! The main meal is family-style: Filet Mignon Shishkabob (Chengeh); seasoned Ground Beef Kabab (Koubiddeh); Chicken Breast Kabab (Brochette); extra-large, marinated charbroiled shrimp; extra-large, marinated scallops; fresh Lake Superior Whitefish; white rice, dill rice, grilled vegetables; beverage, and dessert. All this is served “ALL YOU CAN EAT”. Just let your server know that you and your table buddies would like some more!

Dinner reservations are required and should be received in the Section Office via phone (847-647-8405), fax (847-647-8364), or website (http://membership.acs.org/C/Chicago) by noon on Tuesday, September 18, 2001. The dinner cost is $29.00 (cheap) to Section members who have paid their local section dues, members’ families, and visiting ACS members. The cost to non-Section members is $31.00 (still cheap). The cost to students and unemployed members is $15.00 (super bargain). PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

GENERAL MEETING 8:00 P.M.
Dr. Bill Cochran, McDonald Observatory, University of Texas, Austin, TX

Title: Searching for Planets Around Other Stars

Abstract: Over the past five years, about 60 Jupiter-sized planets have been found around other nearby stars similar to our Sun, clearly demonstrating that the formation of planets is not a rare phenomenon. However, the characteristics of the extrasolar planets found so far are not at all like those of the planets in our solar system. If these (continued on page 26)

NOTICE TO ILLINOIS TEACHERS

The Chicago Section-ACS is an ISBE provider for professional development units for Illinois Teachers, who register for the meeting will have the opportunity to earn up to 3 CPU’s.
planets formed in the same manner as the planets in our solar system, then our current model of solar system formation must be stretched significantly to begin to explain these results. The talk will present a discussion of the techniques used to detect planets around other stars, a summary of the interesting results obtained, and their implications for the formation of planets in general.

**Biography:** Dr. Cochran received his B.S. in 1972 from Duke University, and his Ph.D. in 1976 in Astrophysics from Princeton University. He is a member of the Division of Planetary Sciences of the American Astronomical Society, and is currently a Senior Research Scientist at the McDonald Observatory, University of Texas at Austin and has held positions there since 1976. Dr. Cochran has received many awards and served on numerous NASA committees and review panels, including a Management Operations Work Group on the NASA Infrared Telescope Facility. Dr. Cochran is the namesake of Asteroid 4551.

**CHICAGO SECTION ACS SPEAKERS FOR 2001-2002**

**Friday, September 21, 2001**
Dr. William Cochran  
McDonald Observatory  
University of Texas  
Austin, TX

“Searching for Planets Around Other Stars”

**Friday, October 19, 2001**
Dr. Fred Hawthorne  
UCLA  
Los Angeles, CA

“Polyhedral Boranes and Organoboron Chemistry of the Second Kind”

**Friday, November 16, 2001**
Dr. Natalie Foster  
LeHigh University  
Bethlehem, PA

“Chemistry of Star Trek”

**Friday, December 14, 2001**
Dr. Abigail Quandt  
Walters Art Gallery  
Baltimore, MD

“Conservation of Archimedes’ Treatises”

**Friday, January 25, 2002**
To Be Announced

**Friday, February 22, 2002**
Dr. A. Truman Schwarz  
Macalester College  
Saint Paul, MN

“Chemistry and its Teaching at the Turn of the Century: The Janus View”

**Friday, March 22, 2002**
Public Affairs Meeting

**Friday, April 19, 2002**
Dr. Norman P. Neureiter  
Science and Technology Adviser to the Secretary of State  
Washington, D.C.

“Science, Technology and US Foreign Policy”

**Friday, May 24, 2002**
Gibbs Medalist To Be Elected by the Gibbs Jury

**Friday, June 21, 2002**
To Be Announced

**ARGONNE NATIONAL LABORATORY OPEN HOUSE**

Argonne National Laboratory, a U.S. Department of Energy facility managed by the University of Chicago, will host an education day on Friday, September 14, 2001 and a public open house on Saturday, September 15.

On that Friday, students and faculty from area high schools and colleges will tour and observe Argonne National Laboratory operations. For more information call 630-252-1789.

On that Saturday, the general public will be welcomed to tour the Argonne site to learn about its science and technology research programs. This day is a very important component of Argonne’s public relations and outreach program. This public Open House will take place from 9:30 a.m. until 4:30 p.m.

The education day and open house will give students an opportunity to meet professional scientists and engineers and allow these students and faculty to closely view the work being done at Argonne. Hopefully, the visit to Argonne will stimulate the students’ interest in science and technology careers.

During the open house, the public will be able to visit more than 100 science exhibits, demonstrations, and presentations. These events will give visitors an opportunity to see, close up, the type of research and development their tax dollars support.

Food service will be available, at nominal cost, to the public.

**Directions to Argonne National Laboratory**

From the city: Take interstate 55 south (towards St.Louis). Exit at south Cass Avenue. Proceed one-quarter mile south on Cass Avenue to the laboratory entrance. Turn right and proceed to the gatehouse to enter the laboratory site. Security personnel will direct you from there.

From the north: Take interstate 294 south to Interstate 55 south (towards St. Louis). Exit at south Cass Avenue. Proceed one-quarter mile south on Cass Avenue to the laboratory entrance. Turn right and proceed to the gatehouse to enter the laboratory site. Security personnel will direct you from there.
Proteins and Hard Boiled Eggs

Kids, did you ever wonder why eggs get hard when you boil them? It's because they have lots of protein, especially in the egg whites.

Here's how it works. Protein is a polymer chain of amino acids that is flexible enough to fold up on itself in different ways based on their chemistry. It's all wound up like a loose ball of string and held in place by weak bonds that are fairly easy to break apart. When that happens, the protein is called "denatured".

Have an adult help you to hard boil an egg. Imagine what's going on inside the shell. When heated, the protein molecules gain enough energy to shake apart the weak bonds and the proteins begin to unfold. With time and more heat, new and stronger bonds are formed between different protein molecules.

Another way to break the weak bonds is through chemical action. If you put a raw egg white in vinegar, the acetic acid will break some bonds in the egg, so a dark bowl to help see it better. The egg white will start to set right away and get sort of pickled.

When using an alcohol like ethanol instead, the ethanol will break the weakest bonds in the protein. A lot of alcohol is needed, so really cover up the egg white. You should see some white strands form, but don't be tempted to stir for this will just make a mess.

You can see the greatest effect when both the alcohol and vinegar are used together. Notice the differences between these three different solutions and their effects on proteins. Mechanical energy will also work; whisking egg whites will unfold proteins and cause new bonds to form, and it stays in a new low-density "fluffier" state. A cooked, chemically-altered, or well-beaten egg white will never go back to its original wet and gooey state.

The yolk of the egg holds up better to both the mechanical energy and to the alcohol or vinegar attack. While there is a lot of protein in the yolk, there is also a lot of fat and other molecules that make it more difficult to denature. When hard-boiling eggs the recipe always calls for using a moderate heating process. High heat causes the proteins to get really tough and rubbery, and a chemical reaction between the yolk and the white leaves a green film around the yolk. Did you ever see this, maybe in an Easter egg? That film is actually iron sulfide, made from iron in the yolk and hydrogen sulfide from the white. It doesn't hurt you of course and has no taste, but it doesn't look too appetizing!

Next check out these websites:
www.howstuffworks.com/question231 gives the scientific reason for the answer to the question of which came first, the chicken or the egg, and www.howstuffworks.com/question85 describes how a chicken makes an egg using some really cool inorganic chemistry.


Submitted by Dr. K. A. CARRADO-

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CHEMISTRY DAY 2001

Chemistry Day Chicago style will be celebrated this year at the Adler Planetarium on November 3, 2001. The program will include contests, hands-on experimentation, demonstrations, exhibits, and speakers. An active committee chaired by Tom Kucera and Dave Crumrine together with volunteers helps make this day enjoyable and educational for the visitors. If you are interested in helping to celebrate Chemistry Day 2001, please email Tom Kucera at tjkucera@interaccess.com or phone the Section office (847) 647-8405.

CONTACT THE CHAIR

Do you have any questions, suggestions, recommendations, ideas, gripes, complaints, pet peeves relating to the Chicago Section? Do you want to volunteer, help out, lend a hand with Section programs or activities? Then contact your Chair. Simply log onto the Section's Web Page at http://membership.acs.org/C/Chicago, find the green button "Contact the Chair", and send me an e-mail. If I can answer your query I will respond personally. If I can't I will forward your e-mail to someone who can, or try to provide you with a contact. All in a timely manner. The Section belongs to you and the other 5,475 ACS members who reside in the Chicago area (northeast Illinois and northwest Indiana). Only you can make it work for you by being involved. Only you can make it fail by not being involved. I look forward to hearing from you.

Herb Golinkin
Chair

CONTINUING EDUCATION SEMINARS

The Continuing Education and Professional Relations Committees will sponsor a series of short courses this fall on Saturday mornings, 9:00 to 12:00, at Loyola University, 6525 N. Sheridan Rd., Cudahy Science Building, room 207.

The first two courses will be devoted to combinatorial chemistry. On Saturday, September 29, Dr. Vijaya Gracias will present The History of the Solid Phase Combinatorial Chemistry and on October 27, Dr. Irini Zanze will give The History of the Solution Phase Combinatorial Chemistry. Both Drs. Gracias and Zanze are from Abbott Laboratories. The cost of each seminar is $10 (free to unemployed chemists). A parking garage is available on the Loyola campus and it is also easily reachable by public transportation.

For further details or to register for either or both of these courses call the section office, 847-647-8405.

JobSpectrum

ACS is launching a new service for job seekers and employers to get your resume into circulation. Submit your resume via http://www.JobSpectrum.org. Beginning June 1st, you'll be able to search for jobs and apply online for free. Employers will be able to search for your resume, and until August 31, employers can also post free job ads. JobSpectrum.org is your online career and employment connection.
As we reach the end of the fiscal year for the Chicago Chapter of the ACS, this is a time to celebrate our achievements and plan for the next year. Our officers, councilors, and committee members have given countless hours to encourage the advancement of the chemical sciences and their practitioners. You will find a list of these members in the June issue. Be sure to thank them for their contributions and become an active member yourself whenever you have an opportunity.

Our monthly dinner meetings continue to be an opportunity for learning more about the broad impact of chemistry in our lives. At the Stieglitz Lecture, Dr. Joanna Fowler, Brookhaven National Laboratory, discussed her work in the synthesis and application of short-lived isotopes to research normal and diseased states of the human brain. The chemistry of cyclodextrins, the magical starch derivatives used to control odors as well as deliver fragrances and drugs, was the general meeting topic of Dr. Allan Hedges, Cerestar. Ms. Shahna M. Richman, FBI Chicago Division, discussed the preparedness of the FBI and other agencies in handling bioterrorism. Dr. Jeff Gafney, Argonne National Laboratory, described his research on the chemistry of air pollution. Professor James P. Collman, Stanford University and recipient of the 2000 Fred Basolo Medal, engaged the Section with his discussion of oxygen binding and activation of the hemoprotein, cytochrome C oxidase. The recipient of the Willard Gibbs Medal, Dr. Mark Tobin, Northwestern University, described his research on organometallic catalysts and surface chemistry. The Public Service Awardee, former Congressman Harris Fawell, presented advice on developing leadership in the global marketplace. On the lighter side, Dr. John Fortman, Wright State University, shared film clips on the use of chemistry in movies at the December Holiday Party and Dr. Mark S. Konings, 3M, discussed the history and chemistry of beer brewing.

Public service and community outreach also were important activities in the local section. National Chemistry Week, which was held at Loyola University, introduced many students to the world of chemistry through exhibits, demonstrations and lectures. Kids and Chemistry reaches out to many kids (and their parents) through The Chemical Bulletin and our website (http://membership.acs.org/C/Chicago). College Career Conferences were co-sponsored with Columbia College. Members of the Minority Affairs Committee also participated in career fairs in the greater Chicago Area and Project SEED (Summer Educational Experience for the Economically Disadvantaged) aided in placing economically disadvantaged high school students in scientific laboratories for hands-on research. The advancement of scientific literacy is the goal of a new outreach program by the Chicago Section. The program focuses on improved science and mathematics education in grades K-12 through professional development, standards and assessment. Members met with their legislative representatives in Springfield to describe the program and encourage support through state funding and legislative actions. The ACS Office of Legislative and Government Affairs coordinates this program nationwide.

The Chicago Section also continued its support of the Chemistry Olympiad. Nine local high school students advanced to the National Olympiad Exam. Alex, Makedonski, Niles West High School, was a high scorer and will participate in the 2001 US National Chemistry Olympiad Study Camp. Kudos to High School Education co-chairs Ann Levinson and Ami LeFevre for their efforts in promoting the exam. Five scholarships totaling more than $15,000 were awarded at the June Section meeting to exam participants. The Scholarship Fund, Marie Lishka Scholarship, and Marshall S. Smoler Memorial Award support the scholarship awards. Earnings from another endowment fund, the Vladimir N. Ipatieff Book Fund, were donated to the John Crerar Library for books in the field of chemistry.

Two of our members were recognized for their contributions to the National ACS. Dr. Tom Kucera received the Henry Hill Award from the ACS Division of Professional Relations. The award recognizes Tom's tireless contributions to the cause of professionalism through the ACS Division of Professional Relations, the Committee on Disabled Chemists and in many other roles. Dr. Jim Shoffner was elected Director-at-Large and now participates in the Board of Directors meetings of ACS.

On behalf of the Board of Directors, I also want to thank our association management team Ellen Sullivan and Eva Lopez, TEI Analytical, Inc., for their support and service to the Chicago Section. They serve a vital function providing many office services as well as guidance and assistance to our officers and membership. Our appreciation also to the many employers in our Section who have supported our members, programs and awards throughout the year.

SHARON J. NORTHUP
IMMEDIATE PAST CHAIR

DEADLINES FOR CHEMICAL BULLETIN

Please submit all Chemical Bulletin copy to the editor before the deadlines listed below for each issue. Articles can be emailed to the editor, Cherlyn Bradley, cbrad1027@aol.com.

Since we like the Bulletin to be as timely as possible, we need the lead time indicated. You can help by early planning and submission of your information or articles.

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