

# *The Chemical Record*

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Columbus Section of the American Chemical Society, Inc.

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[www.acscolumbus.org](http://www.acscolumbus.org)

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## Alternative Energy Sources

Come to our March meeting and listen to ACS President Professor Attila Pavlath's discussion of the availability of various energy resources other than coal, gas, and oil.

*also, come see a presentation of the*

## Outstanding High School Teacher Award

(see page 10 to see who won!)

The meeting will be at Chemical Abstracts Service on Wednesday, March 21.

For reservations, try our automated service online at <http://www.acscolumbus.org>.

Full details on page 4.

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## Electronic Access of The Chemical Record

This will be the last bulk mailing of *The Chemical Record* for several months. The Chemical Record will continue to be published each month in an electronic format. An email message will be sent to members on a monthly basis, and the *Record* will be available for download from the Web (<http://www.acscolumbus.org>). If you do not receive an email by mid-March detailing Chemical Record access information, please contact Stephen Renner, [srenner@cas.org](mailto:srenner@cas.org), with an update of your email address.

**Important:** To assist our planning efforts, please let us know if you would like to continue receiving a monthly HARD COPY of *The Chemical Record*. To do so, please contact Stephen A. Renner, Chemical Abstracts Service, 2540 Olentangy River Road, Columbus, Ohio 43210.

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## Section News

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### A Message from the Chair...

We have just had our first meeting of the year. Bill Zoller gave an inspirational talk on how to attract young people into science. Describing his experiences with an exploratory program in Seattle, Bill provided a vision of how to stimulate interest in science at high school and lower school levels. Primarily, Bill has equipped enthusiastic undergraduates to go out to schools and give talks on science. Coming from students closer to their peer group, the message has great effect, and Bill described many spectacular results from his program. Clearly the model he presented could be duplicated anywhere. Bill has triggered a dialog, which we can only hope will take root and flourish. Feel free to contact me if you are interested in learning more.

This month we have a visit from the President of our Society. Attila will give a talk on alternative energy sources (very topical given the situation on the West Coast!) and will also present the award for outstanding high school teacher of the year.

This month also sees the kick-off event for our Younger Chemists group. We wish them great success and encourage you to participate.

Finally, we have a special meeting at the end of the month that also touches on science themes. Professor Susan Olesik of the Ohio State University will make a presentation on her "Wonders of the World" project for elementary school science education. Professor Olesik's program was highlighted in an article in the Columbus Dispatch last November.

Obviously, we have a full month ahead of us. Participate and enjoy!!

Jimmy Cowan, Chair  
February 2001

### A Call for Candidates for Section Officers

*submitted by Steve Rosenthal*

Since the March issue will be the last general mailing issue of The Chemical Record for a while, it is a good time to start thinking about the election of officers for 2001. Although the election is held in November, the slate of candidates is needed well before that time.

The nominating committee is responsible for having two candidates for each office. If you are interested in running for any position, please contact the committee chairperson, Steve Rosenthal, at 447-3600 x3578 (email [srosenthal@cas.org](mailto:srosenthal@cas.org)). If you have suggestions for possible candidates or would like to serve on this committee, please contact the committee chairperson. Members of the nominating committee are not permitted to run for office.

Offices up for election for 2002 are:

*Chair-Elect.* This person succeeds to the position of Chair in the year following service. The main duties are to assist in event programming and to assist the Chair.

*Treasurer-Elect.* This person succeeds to the position of Treasurer in the year following service as Treasurer-Elect. The main duty is monitoring the long term investments of the Section.

*Secretary.* The Secretary takes the minutes of the executive meetings and writes occasional correspondence.

*Councilor.* A Councilor represents the Section at ACS National meetings and serves a 3-year term.

(continued on next page)

## Section News

(from page 2)

*Alternate Councilor.* This person represents the Section at ACS National meetings whenever a Councilor cannot attend and serves a 3-year term.

### Ohio Mathematics and Science Coalition Meeting

*submitted by Manfred Luttinger*

The Ohio Mathematics and Science Coalition (OMSC) is an advocacy group working to revitalize and improve mathematics, science and technology education in Ohio from pre-school to beyond graduate school. The organization is comprised of individuals from education, business, and public sectors. It is staffed by an Executive Director and an Assistant Executive Director working out of an office in Cleveland.

OMSC is still in the organizing stage, and much of the meetings was devoted to continuing strategic planning from previous meetings. Status reports were also presented by various members organizations about their activities and plans. The top three initiatives of the OMSC are:

- A shared vision for its diverse membership
- A united voice to raise public awareness of the stated educational goals.
- A coordinated effort among its member organizations to pursue excellence in mathematics and science education.

A Legislative Committee has been organized and a charter drawn up. This is expected to become an important focal point of the organization's activities.

The American Chemical Society was represented at the OMSC meeting by Debbie Fillinich of the Office of Legislative and Government Affairs in Washington and by Manny Luttinger of the State and Local Government Affairs Committee of the Columbus Section. Following the presentations and discussion at the Riffe Center, a Statehouse reception for legislators was held from 5-7pm. The ACS participated with a table and hand outs.

### Columbus Technical Council Awards Banquet

*submitted by Lucile Decker*

ACS members! Plan to attend the awards banquet sponsored by the Clintonville Women's Club. We will honor the Technical Person of the Year, and students and teachers from area high schools. Information on getting your ticket will be in the next issue of *The Chemical Record*.

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## Meeting #768, Wednesday, March 21

Chemical Abstracts Service  
2540 Olentangy River Road  
Columbus, Ohio 43202  
614-447-3600

**5:15 pm:** Reception: Cheese & crackers, chips, mini quiche, bbq meatballs, shrimp eggrolls, fruit punch.

**6:00 pm Dinner:** Tossed salad. Selection from homemade pot roast OR chicken neptune OR pasta w/fresh grilled vegetables. Broccoli/cauliflower/carrot blend, scalloped potatoes. NY style cheese cake. Rolls and refreshments.

**7:00 pm Presentation:**

Outstanding High School Teacher Award

**7:15 pm Lecture:**

Alternative Energy Sources: From the Sun  
to the Depths of the Earth

Dr. Attila Pavlath, ACS President and Emeritus Lead Scientist  
Western Regional Research Center  
U.S. Department of Agriculture, Albany, California

**Cost:** \$16.00. Emeritus members, unemployed members \$14, and students are \$5. (The cost covers the price of dinner. If you cannot attend the dinner, please feel free to attend the program at 7:00 pm).

**Reservations:** Please phone Marcella Gibbs at 447-3600 x2721 or email [mgibbs@cas.org](mailto:mgibbs@cas.org) or reserve online at [www.acscolumbus.org](http://www.acscolumbus.org) by 3:00 pm Monday, March 12th. Please indicate retired/unemployed/spouse/student status and affiliation when making reservations. Also please indicate your entree choice. To cancel a reservation, please call Marcella by 11:00 am Tuesday, March 13th. No cancellations can be accepted after that time. Uncancelled reservations must be paid. Early reservations are appreciated.

**Executive Meeting:** A business meeting will be held at 4:00 pm on Monday, March 12th, in the Reading Rooms at Chemical Abstracts. Any section member is welcome to attend the business meeting.

**Directions:** To get to Chemical Abstracts Service, take Route 315 to Lane Avenue, exit. Go East to Olentangy River Road. To LEFT (North) and go past the Fawcett Center to Burnbrae Street (just before Ackerman/Dodridge). Turn RIGHT and park in lot. Please enter building through the North entrance and sign in at the security desk as well as with the Hospitality Committee table.

## About the Topic

This lecture gives a general description of the availability of various energy resources other than coal, gas, and oil. It summarizes the present technological background of possibilities from geothermal to fusion power. It is presented in such a way as to be understandable to a large degree of non-technical audiences. The amount available in each area and the future outlook are discussed.

## About the Speaker

Dr. Attila E. Pavlath is an Emeritus Lead Scientist at the Western Regional Research Center of the U.S. Department of Agriculture in Albany, California in a research group on the utilization of agricultural products as chemical resources.

He finished his undergraduate and graduate studies in Hungary with a Diploma in Chemical Engineering at the Technical University of Budapest, and a doctor degree in chemistry by the Hungarian Academy of Sciences.

He was an Assistant Professor at the Technical University of Budapest and a Group Leader at the Central Chemical Research Institute of the Hungarian Academy of Sciences. He left Hungary in 1956 and was a Research Fellow at McGill University in Montreal Canada until 1958 when he joined the Western Research Center of Stauffer Chemical Company in Richmond, California as a Senior Group Leader.

Since 1967 he has been with the U.S. Department of Agriculture in Albany leading various research projects.

Dr. Pavlath's research experience of almost 40 years includes a wide variety of scientific areas. He is an internationally known expert in fluorine, textile, agricultural, glow discharge and energy chemistry where he has over 110

scientific publications, 25 patents, three books, numerous chapters and reports. He has lectured throughout the world at various scientific meetings.

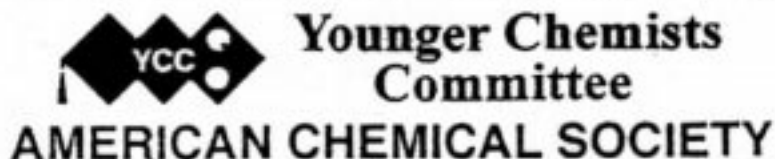
The American Chemical Society lists him on its tour speaker list with eight topics. In 1976, he was given by the ACS California Section the Outstanding Contribution to Chemistry Award recognizing his 25 years research in fluorine chemistry.

In 1987, he was selected as the Federal Scientist of the Year in California. In 1989, he received the ACS Henry Hill Award for Distinguished Services on the area of Professional Relations and in 1991 the California Section's Walter Peterson Award for Outstanding Services. He also received, numerous merit awards from the U.S. Department of Agriculture. More detailed information is available on his web page: <http://www.pavlath.org>.

After chairing numerous committees of the American Chemical Society, and serving nine years on the ACS Board of Directors as Director-at-Large he was elected in 1999 for the Presidential succession (President-Elect, 2000; President, 2001 and Immediate Past President 2002).

During his long involvement in these activities, he steadfastly maintained that the ACS is a membership organization, that we must promote the members' interest if we want to make progress in chemistry. He is planning, as promised in his election statement, to involve ACS members at the Grassroots level in improving the Society to make it a better place equally for everyone from our youngest members to the most respected Nobel Laureate.





**Announcing**  
the  
Columbus Section  
Younger Chemists Committee  
**Kick-Off Event**

**WHO:** All Chem and ChemE and related scientists- You do NOT need to be an ACS member or YCC member to attend!! (this group will be targeted to those who are 35 and under, others are welcome to attend)

**WHAT:** Company Tour and kick-off meeting

**WHEN:** March 14<sup>th</sup>, 5:30pm

**WHERE:** Tosoh SMD (in Grove City, see directions below)

**WHY:** Come and find out WIIFM?

**Directions:**

Tosoh SMD is south of Columbus in Grove City. Take 71 South to the Stringtown Rd. exit, go right on Stringtown Rd, then right at the first light onto Gantz Rd. Follow Gantz for about ¼ mile, and Tosoh will be on the right at 3600 Gantz Rd.

**Agenda:**

5:30pm Registration, Snacks, Icebreaker  
6:00pm Welcome & Tosoh SMD presentation  
6:30pm Company Tour  
7:15-8:30pm YCC meeting, Door Prizes

Tosoh SMD, Inc. is an industry leader in the development and production of high purity metals and alloys for Physical Vapor Deposition (PVD). PVD is one of the "mission critical" processes used in the production of semiconductor devices (microprocessors, memory chips, etc.) and other electronic products found in computers, communication equipment, and entertainment devices. Come and find out how chemistry is applied in this obscure yet ubiquitous technology. Find them on the web at [www.tsmd.com](http://www.tsmd.com).

**RSVP** by March 5<sup>th</sup> to Anne Hawking, (614)438-2631, [ahawking@hotmail.com](mailto:ahawking@hotmail.com)  
(Those attending will need to wear sturdy shoes with non-slip soles for the tour)

## Section News

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### Notes on the February Meeting

*submitted by Maria Rosenthal,  
Education Chair*

Dr. William Zoller, professor at Washington State University, spoke on his highly successful outreach program to engage and retain students in the sciences through High School and into College, and its natural extension to the elementary and middle school grades.

The message is of great interest to our local community, both Chemistry Educators and members, as we know first hand the adverse impact of a work force lacking even the basic science skills and the poor levels of science literacy in the general population, affecting everything from consumer fraud to misguided legislature and government leadership at the local and national level.

The outreach program at Washington State takes college freshmen and sophomores back to the High Schools to connect with students through well prepared talks on current topics, mostly in the environmental area.

The measure of success is the increasing numbers of students that are entering Science and Chemistry programs at Washington State and other universities in the area. The college students benefit as they develop public presentation skills as they learn to research the topics and questions from the audience. The High School students see "one of them" being comfortable with science and as they care about the environment, they connect immediately with the message.

Teachers attended an afternoon session with Dr. Zoller at Capital University focused on teaching techniques. Some were also present

at the evening meeting and expressed great interest in seeing a similar program developed in our community. Dr. Zoller stands ready to provide start-up help. This is certainly a win-win initiative that ACS members and Educators ought to embrace.

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### Your Councilors at Work:

**Jodie Harper** has been appointed a full member of the Membership Affairs Committee (MAC). She had served as an associate member for the past 3 years. MAC's Mission is to provide leadership to the Society to help develop a broadly based, informed, and growing membership skilled in the chemical sciences.

She is also chairing a joint task force of MAC and Younger Chemist Committee (YCC) members. The task force is looking at ways to recruit, retain, and recognize younger chemists. Please feel free to contact her if you have any input or suggestions for the Society on these topics.

**Terry Huston** has been appointed as a full member of the Committee on Meetings and Expositions for the 2001-2002 term. She had been an associate member of this committee in 2000.

**Jerry Timmons** is a member of the Divisional Activities Committee (the principal Council Committee dealing with the technical Divisions). He serves on the Constitution and Bylaws Subcommittee of the Divisional Activities Committee (DAC) and also as Liaison between DAC and the Agrochemical and Business Management technical Divisions.

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## Section News

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(continued from page 7)

The Councilors have just been involved in two elections of members of the Board of Directors and all three will attend the National ACS Meeting in San Diego. It is at these national meetings that they get to see the interaction of the Board and Council, of the principal Council Committees. Jerry believes too little interaction exists between the Divisions and the Local Sections.

### Science Day Judges Needed

*submitted by Stephen A. Renner*

The annual State Science Day, sponsored by the Ohio Academy of Science, will be Saturday, April 28th. Once again, we are looking for individuals who would enjoy the opportunity in meeting with students (grades 7-12) and discussing/ evaluating their science projects. If this interests you, please contact Stephen Renner at CAS ([srenner@cas.org](mailto:srenner@cas.org), or 447-3600, x2449)

## Special Meeting

Wednesday, March 27th 2001

Chemical Abstracts Service,  
2540 Olentangy River Road,  
Columbus, 43202  
(614) 447 3600

**5:00pm Reception** - coffee, soda, cookies.

**5:30pm Presentation** -

"Wonders of the World" Project for Elementary School  
Science Education  
Professor Susan Olesik, Ohio State University.

**Directions:** To get to Chemical Abstracts Service, take Route 315 to Lane Ave. exit. Go E to Olentangy River Rd. Turn L (N) and go past the Fawcett Center to Burnbrae St. (just before Ackerman/Dodridge). Turn R and park in lot. Please enter building through the N entrance and sign in at the security desk.

### Wonders of Our World – W.O.W.

Wonders of Our World (W.O.W.) is a science education outreach project for elementary schools. The project involves the close collaboration of Ohio State University faculty and students, the entire faculty of specified elementary schools and local area scientists.

Through the collaboration with elementary school teachers, the program is intended to: (1) enhance the science literacy of elementary students and elementary school teachers, (2) increase the science material that elementary school teachers are comfortable presenting to their students, (3) increase the involvement of local scientists, parents and undergraduate science students in important community

projects, and (4) generate a model that can be used by scientists across the United States to assist science programs in other elementary schools.

This presentation will describe the details of how the W.O.W. project operates and the progress of the program to date. Two elementary schools, Albert Chapman Elementary in the Dublin School District and Gables Elementary in the Columbus School District are presently involved in the program. Teachers from both schools and volunteers for the program will also be available for discussions.

## HIGH SCHOOL CHEMISTRY TEACHER OF THE YEAR

*from Columbus ACS Press Release  
Maria G. Rosenthal*

Jeffrey D. Bracken, Chemistry Teacher at Westerville North High School has earned this prestigious award by the Columbus Section of the American Chemical Society (ACS).



Jeff Bracken

Mr. Bracken is being recognized for his unique and engaging approach to teaching chemistry and his outstanding leadership in the education community, both locally and at the national level.

Jeff's chemistry class features demonstrations such as "The Flaming Ferris Wheel", "The Swimming Skeleton", "The Soda Fountain", and many others, often accompanied by music with, of course, chemistry lyrics such as periodicity, ionic bonding, and quantum mechanics.

Jeff Bracken is a "world-class teacher" and his professional activities include authorship of assessment tests, laboratory notebooks, and his "Chemistry: Visualizing Matter" chemistry experiments book, now a widespread resource.

Mr. Bracken has formed a "Chemical Education Research" group with student volunteers to develop and test both chemical

demonstrations and laboratory activities.

The ACS proudly supports his initiative in organizing and coordinating professional development workshops for teachers, in the summer and throughout the year. This effort also features OSU Chemistry Faculty as instructors and is jointly supported by various local industries.

The Workshop features labs, demonstrations and pop songs, make-it-take-it session where teachers build demonstration devices, constructivist chemistry experiments that force students to think, strategies for assessments, blocked scheduling, cooperative learning, opportunities for sharing teaching tips, and graduate level credits at OSU Chemistry Department.

"Give me a place to stand, and  
I will move the Earth."

*Archimedes (ca. 250 BC)*

## The Chemical Record

**Email news, announcements, letters, opinions, etc. to [srenner@cas.org](mailto:srenner@cas.org).**

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Mail items to Stephen A. Renner, Dept. 88, CAS, 2540 Olentangy River Rd., Columbus, OH 43202.

**The submission deadline for the April issue is March 23.**

**Send address changes/name removals** to Ron Haney, Membership Chairman ([haneyro@witco.com](mailto:haneyro@witco.com), 764-6551). Ron Haney maintains the mailing list. Address labels are printed by Mike Miller.

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## Calendar

March: 21st; Outstanding High School Teacher Award; "*Alternative Energy Sources: From the Sun to the Depth of the Earth*", ACS President Attila Pavlath.

27th; "*Wonders of the World Project for Elementary School Science Education*", Dr. Susan Olesik.

April: 19th; Presentation of Outstanding College Junior and Senior Awards.; a talk by Dr. Rosemary Marusak. (Title of talk coming soon!)

25th; Columbus Technical Council Banquet; Technical Person of the Year.

28th; State Science Day.

May: 2nd; "*A Fulbright Year in Qatar*", Dr. Tom Weeks.

8th; Patterson-Crane Award.

September:

12th; "*Decoding the Stradivariouss The Materials, the Sound, and the Mystique*", Dr. Joseph Nagyvary.

October: 4th; ACS President-Elect to visit.

November:

4-10th; National Chemistry Week.

14th; "*Applications of Biopolymers*", Dr James N. BeMiller.

Columbus Section Of The  
AMERICAN CHEMICAL SOCIETY, Inc.  
**CHEMICAL RECORD**  
P.O. Box 82181,  
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