

GEOCHEMISTRY NEWSLETTER

Spring 2000



AMERICAN CHEMICAL SOCIETY

DIVISION OF GEOCHEMISTRY

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<http://membership.acs.org/G/GEOC>

Report from the Chair:

I now end my tenure as Chair of the Geochemistry Division. During the last year we saw plans of several finally come to fruition: the Division established a medal and will publish a new journal (Geochemical Transactions). We have grown closer to the Geochemical Society, which was a particularly important goal of mine.

The Geochemistry Division of ACS serves the broad community of geochemists because there are dedicated scientists who find the time to perform volunteer service. Certainly the person who works the hardest is Ken Anderson, the past chair, who not only spearheaded new initiatives, but also fought a seemingly endless battle with the National ACS office to get recognition and just plain fair treatment. He deserves our gratitude, as do the other long-term volunteers, such as Michael Kashgarian and John Schaumloffel. The division officers for 2000 include a mix of new names and old.

Pat Hatcher is stepping down as the councilor but has been involved with the Geochemistry Division since its inception. Teh Fu (Dave) Yen is also the retiring alternate councilor. Dave and Pat have served the Geochemistry Division of ACS across two decades and they deserve our gratitude.

I commonly stated during my tenure that it makes no sense for

geochemists to be under-represented in the world's largest scientific society (ACS). The truth of this is self evident, but allow me to end my tenure by reemphasizing the fact that the Geochemistry Division of ACS is a wholly volunteer organization for the benefit of all geochemists.

Bill Casey

Geochemistry Division Officers

Chairperson: Andy Bishop
Program Chair/Chair-Elect: George Cody
Past Chair/Awards Chair: Bill Casey
Program Chair-Elect: Peggy O'Day
Secretary: Virender Sharma
Treasurer/Editor: John Schaumloffel
Alternate Councilor: George Luther

Councilor: open

Award Nominations

Bill Casey, Past Chair and Awards Chair, will be seeking nominations for our Geochemistry Division awards for 2000! Our first awards for the new millennium will be from the San Francisco & Washington D.C. meetings. Awards are given for the Best Symposium and the Best Student Presentation. When you attend an outstanding symposium or see a student give a great talk, don't forget to contact Bill with nominations.

High Precision Isotopic Analysis

Off-line Preparation and CF-IRMS

Stable Isotopes:

$\delta^{13}\text{C}$, δD , $\delta^{18}\text{O}$, $\delta^{15}\text{N}$

- ◆ Gases:
C1-C5 hydrocarbons,
CO₂, N₂
- ◆ Organic Solids
- ◆ Organic Liquids
- ◆ Carbonates
- ◆ Groundwaters

Radiogenic Isotopes: ^{14}C , ^3H

- ◆ Landfill Gas and
Landfill Leachates
- ◆ Groundwaters
- ◆ Radiometric or AMS for ^{14}C
- ◆ Tritium with Electrolytic
Enrichment

Other Analytical and Sampling Support

- ◆ Compositional analysis of gases
- ◆ Dissolved gas analysis
- ◆ Food Web Investigations
- ◆ Food Adulteration Monitoring
- ◆ Biological tracer studies
- ◆ Sampling containers, equipment,
and instructions

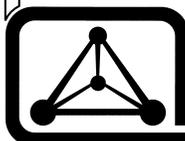
Geochemical Fingerprinting of Gases for

- ◆ Oil and Gas Exploration
- ◆ Landfill Gas Identification
- ◆ Pipeline Leak Identification
- ◆ Gas Storage Monitoring

Environmental Monitoring

- ◆ Landfill Leachate Identification
- ◆ Groundwater Characterization
- ◆ Groundwater Dating

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CALL FOR PAPERS

GEOCHEMICAL TRANSACTIONS

Geochemical Transactions, a new, all-electronic journal is now accepting manuscripts for review. The journal is published by the Royal Society of Chemistry, in collaboration with the Division of Geochemistry of the American Chemical Society, and is devoted to all areas of geochemical research.

Geochemical Transactions coverage includes the following:

- ? Organic and inorganic Geochemistry/biogeochemistry
- ? Aquatic and marine chemistry
- ? Chemical and elemental cycles
- ? Numeric & computational models of geochemical processes
- ? Instrumental and analytical techniques

The launch date of the journal is January 2000. All manuscripts should be submitted to the Royal Society of Chemistry and will be reviewed by at least two expert referees. For information on how to submit a manuscript, visit the RSC website:

www.rsc.org/geochem

The Editor-in-Chief of *Geochemical Transactions* is **Dr. Scott A. Wood** from the University of Idaho, Moscow, ID, USA.

Associate Editors

Dr. Ken Anderson:
Argonne National Laboratory,
USA

Dr. William Casey:
UC Davis, USA

Dr. George Luther:
University of Delaware, USA

Dr. Martin Schoonen:
State University of New York,
Stony Brook, USA

Dr. Jack Tossell:
University of Maryland, USA

Dr. Heinrich Holland:
Harvard University, USA

Dr. Vala Ragnarsdottir:
University of Bristol, UK

Advantages of publishing in *Geochemical Transactions* are:

- ? Rapid publication
- ? Enhanced presentation of results
- ? Interactive images
- ? High refereeing standards
- ? Fully searchable
- ? Fully archived
- ? E-mail alerting services
- ? Covered in major citation index and abstracting services

**The Geochemistry Division Website
now has a permanent home at
<http://membership.acs.org/G/GEOC>**

Report from the Treasurer:

Overall, the Division is in reasonable financial shape. One concern is the rising costs of supporting our programming. Our main function is to support high quality, member initiated programming at ACS national meetings. In addition, we have the opportunity to support programming at other meetings that are of interest to our members.

While supporting top-notch symposia, we do want to keep membership dues at the current level. As a result, we are looking into mechanisms to increase revenues without additional cost to our members. One mechanism members can use to help us provide high-quality programming is to apply for ACS PRF type SE (Scientific Education) grants when they organize symposia at major meetings.

ACS PRF type SE grants of up to \$2,000 are available to help defray the travel costs of invited foreign speakers at major symposia in the U.S.A and Canada. Two Geochemistry members have been successful in getting these grants during the past year. **The application is short, and the Division Treasurer takes care of much of the work!** You can find out about ACS PRF type SE grants at the following website:

www.acs.org:80/prf/index.html

John C. Schaumloffel

Geochemistry Division Officers

1982-2000

As we enter the new millennium, let us not forget the efforts of our past and present Division Officers. Many have served the Division in more than one capacity **and** were instrumental in the formation of the Division:

Ken B. Anderson
Earl W. Baker
Andrew N. Bishop
Alan K. Burnham
Robert H. Byrne
Susan A. Carroll
William H. Casey
George D. Cody
James A. Davis
Timothy I. Eglinton
Royston H. Filby
Patrick G. Hatcher
George R. Helz
Micheale Kashgarian
George W. Luther III
Dan Melchoir
Francis P. Miknis
Frank J. Millero, Jr.
J. Michael Moldowan
Peggy O'Day
William H. Orem
Wilson L. Orr
Patrick L. Parker
Paul Philp
Jackie D. Reed
John C. Schaumloffel
Virender K. Sharma
Frederick O. Simon
Mary L. Sohn
Bradley M. Tebo
John P. Walters
T. J. Weismann
T. R. Wildeman
Teh Fu Yen

Many thanks to Micheale Kashgarian for compiling this list!

**Future ACS Geochemistry
Division Programming:**

Too often in the past, the Geochemistry programming at the National Meetings has been random, with little synergy between the different symposia. Long-range planning has also been limited.

In an attempt to build better sets of symposia, the Geochemistry Division will in future invite symposia around concentrated themes. This does not mean to say we will no longer welcome unsolicited topic suggestions, these we will always be very happy to accept. But by moving towards more organized, and offering more longer range programming we will be able to offer more dynamic meetings, attracting a wider range of geochemists from around the world.

We welcome a dialogue on the types of themes you would like to see covered. Peggy O'Day (Program Chair-Elect) is responsible for long-range programming, and would be happy to hear your suggestions (Email: oday@asu.edu). The topics covered will be cycled over approximately a four-year time period, and run in concert with the ACS concentrated programming themes for the National Meetings as a whole. We will kick this off with the San Diego National Meeting (Spring 2001) which will be based around the topic of 'Marine Biogeochemistry.' We

look forward to hearing your comments on this, and your suggestions for future themes and symposia.

Andy Bishop
bishoan@texaco.com

**OASys: ACS OnLine Abstract
Submittal System**

OASys is the new ACS online abstract submittal system that enables authors to submit abstracts to program officials and get immediate confirmation that their papers have been received. It premiered during the Fall 1999 call for national meeting papers, during which ACS collected over 5100--or 87%--of abstracts online. The goal for Spring 2000 is 95% online submission.

**[http://www.acs.org/meetings/
abstract/abinfo.html](http://www.acs.org/meetings/abstract/abinfo.html)**

Future ACS National Meetings

Washington, DC: August 20-24, 2000

San Diego: April 1-5, 2001

Chicago: August 26-30, 2001

Orlando: April 7-11, 2002

Boston: September 8-12, 2002

CALL FOR PAPERS / UPCOMING SYMPOSIA

Abstracts should be submitted online via the ACS website. If online access is not available, please get in touch with the Program Chair well before the abstract deadline. Contact the appropriate symposium organizer (listed below the title) for further information on the topics listed.

Washington DC, 20-24 August 2000

Abstract Deadline: April 7th, 2000

Biogeochemistry of the Microbial Alteration of Terrestrial Organic Matter

Timothy Filley (tfilley@gl.ciw.edu)

John Hedges (jihedges@u.washington.edu)

The Chemistry of the Early Solar System

Conel Alexander (alexande@dtm.ciw.edu)

Chemical-Biological Interactions in Contaminant Fate*

Paul Tratnyek (tratnyek@ese.ogi.edu)

Peter Adriaens (adriaens@engin.umich.edu)

Eric Roden (eroden@biology.as.ua.edu)

Cosponsored with Environmental Chemistry Division

Chemical Speciation and Reactivity in Water Chemistry and Water Technology:

A Symposium in Honor of James J. Morgan*

J. Hering (jhering@cco.caltech.edu)

J. Schnoor (jschnoor@cgrer.uiowa.edu)

Cosponsored with Environmental Chemistry Division

San Diego, April 1-5, 2001

Abstract Deadline: Check 'Call for Papers' in C&E News

Chemical Reactivity of Aromatic and Sulfur-Containing Aromatic Hydrocarbons in Natural Systems

F. Behar (francoise.behar@ifp.fr)

P. G. Hatcher (hatcher@chemistry.ohio-state.edu)

Symposia titles invited, especially fitting within the general theme of:

'Marine Biogeochemistry'

Chicago - August 26-30, 2001

Symposia titles invited, especially fitting within the general themes of:

'Radiogenic Compound Geochemistry'

'High Pressure Studies'

'Molecular Modeling'

Orlando - April 7-11, 2002

Symposia Titles Invited

*In addition to the standard short abstracts (required by ACS), 4 page extended abstracts are required by the Division of Environmental Chemistry. They must be submitted by 7-April-2000 to the appropriate organizer.

Geochemistry Division Medal

To be awarded for outstanding contributions
in any area of the field of Geochemistry.

The Division of Geochemistry of the American Chemical Society is currently soliciting nominations for the inaugural awarding of the Geochemistry Division Medal. The medal is to be awarded biennially to an individual for outstanding accomplishment in any area of Geochemistry.

The award consists of a bronze medallion plus \$2000. The awardee will receive an allowance for travel to the award ceremony, as well as registration costs for the ACS meeting at which the award will be conferred. The first award will be presented in conjunction with the celebration of the 20th anniversary of the Division at the 221st ACS National meeting to be held in San Diego, April 1-5, 2001

Letters of Nomination and supporting material should be sent to the Chair of the GEOC Medal Committee, Dr Robert H. Byrne, at the address given below, by April 30th 2000.

Nominations should include a detailed description of the nominee's outstanding accomplishments, relevant citations and, at the discretion of the nominator, any other supporting information. The committee will also accept letters from individuals other than the primary nominator. Nominators should confirm, prior to submission of the nomination, that the nominee is willing to be considered for the award.

Dr. Robert H. Byrne
Chair, GEOC Medal Committee
Marine Science Department
University of South Florida
140 Seventh Ave S
St Petersburg, FL, 33701-5016
byrne@marine.usf.edu

At the ACS National Meeting in

Washington DC, 20-25 August 2000

The Chemistry of the Early Solar System

The chemistry of the early solar system set the stage for genesis of planets, asteroids, meteorites, and comets. Papers are solicited on a wide range of topics related to the earliest stages of the solar system. All papers covering issues related to this topic are welcome. Examples include, but are not limited to:

- ? The formation of extraterrestrial organic molecules and macromolecules
- ? Stable isotopic fractionation and signatures of pre-planetary processes
- ? Chemical and mineralogic differentiation within meteorites and meteorite parent bodies
- ? Ion molecule reactions
- ? The organic and inorganic chemistry of comets
- ? Chemical characterization of meteorites, micro-meteorites, and IDP's
- ? Extraterrestrial chemistry and potential origins of life on earth
- ? Chemical differentiation within the protoplanetary disc
- ? Extraterrestrial signatures on earth: Chemistry associated with Ancient impact structures
- ? Related topics

Contact for details:

Dr. Conel Alexander
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Carnegie Institution of Washington
5041 Broad Branch Road
Washington, DC, 20015
202-686-4370 x2565
alexande@dtm.ciw.edu

At the ACS National Meeting in

Washington DC, 20-25 August 2000

Biogeochemistry of the Microbial Alteration of Terrestrial Organic Matter

Vascular plant tissues compose the most abundant form of biomass on earth, and are major precursors of the largest pool of actively cycling organic carbon in soils and peats. Thus, knowledge of the mechanisms and rates of microbial transformations of terrestrial biomass is critical to understanding the global carbon cycle. We invite you to contribute papers to this special session on both laboratory- and field-based investigations of microbial alteration of terrestrial organic carbon. Contributed papers are especially solicited that discuss such issues as:

- ? Ecosystem and environmental controls on decomposition of TOM
- ? Production of dissolved organic matter
- ? Fungal alteration
- ? Redox chemistry of microbially-degraded residues
- ? Enhanced preservation of woody tissue
- ? Bacterial utilization of terrestrial carbon

Contact for details:

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Open

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