

The Chemical Record

Volume 45, No. 1 February, 2003
Columbus Section of the American Chemical Society, Inc.

www.acscolumbus.org

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Message from the Chair

I would like to wish every member of the Columbus Section all the best for the New Year of 2003 that lies ahead. It is my sincere wish that we in the Executive Committee will serve you well by providing an interesting program of events for the New Year. We face important challenges, and serious attempts will be made to improve our administration and our communication efforts. In this regard I am very pleased to announce that Stephen Renner will again be responsible for our website with the capable guidance of Priscilla Ratliff as Content Manager, Richard Dardis will be the Electronic Mail Coordinator, Steve Rosenthal will assist with file archiving, and that George Greene has agreed to become the Editor of the Chemical Record. Maria Rosenthal is heading a Communication Committee to improve our communication in various ways. However, each committee and each effort on behalf of the section is very important to be able to serve the members of our section.

The Columbus Section needs to build on past initiatives to introduce new programs of events and particularly try to involve more of our young chemists as well as new members in future events. The time has also come to become more visible on the various campuses of the many colleges and universities that we serve in this area of Central Ohio. The Columbus Section must also involve the various Divisions better in our activities and seriously look for opportunities where joint events can be organized.

There are several members who worked very hard for this section in the past, and continue to do so. It is so gratifying to know that one can count on these loyal members who all work as volunteers. It is largely through their efforts that the Columbus Section has obtained an excellent reputation of a growing and active section of ACS. I would like to invite members who feel they can contribute to the activities of this section to come forward and help us with new ideas, initiatives or events. There are also some new members on the Executive Committee who had not served before, we would like to welcome you and we are very much looking forward to your contributions to our activities.

Anton M. Heyns
Chair

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MEETING NOTICE

COLUMBUS SECTION OF THE AMERICAN CHEMICAL SOCIETY, INC.

Meeting # 783

Wednesday, February 12, 2003

At CAS - Chemical Abstracts Service

2540 Olentangy River Road

Columbus, OH 43202

614-447-3600

- 6:00 PM** Reception. Fruit punch and assorted snacks.
- 6:30 PM** Dinner. Mixed salad, choice of entree: beef, chicken, or vegetarian dish, vegetable sides, rolls and butter, assorted beverages, and apple pie for dessert.
- 7:45 PM** Program Topic: Local-Global Cooperativity in Dendrimer Folding. Effect of Global Compaction on Local Secondary Structure.
- Speaker: Dr. Jon Parquette, OSU Chemistry Dept. and Chair-Elect, Columbus Section.
- Cost:** \$18.00, Members and nonmembers. \$16.00 Retired, emeritus and unemployed members. \$5.00 Students. If you cannot attend the dinner, the program is free and open to all.
- Reservations:** Please use the NEW voice mail reservations service, by calling 614-447-3600, extension 7047. Follow template for reservations*.
- Alternatively, please send email to Anton Heyns: ahneys@cas.org.
- To cancel a reservation please call Anton Heyns, 614-447-3600 x 3546. Reservations not cancelled by the deadline must be paid in full. Thank you.
- Reservations Deadline: Friday, Feb. 7, 2003.**
- *VOICE MAIL TEMPLATE:**
- Call 614-447-3600 x 7047.
 - First and Last Name: Please spell last name.
 - Member category: member, retired, emeritus, and unemployed, student, other.
 - Employer.
 - Menu choice: beef, or chicken, or vegetarian.
 - Your phone number, in case we need to contact you.
- 5:00 P.M.** Executive Committee Meeting - The business meeting will take place in the Battelle Rooms at CAS. All members are welcome.

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Directions to CAS:

Take route 315 to Lane Ave. exit.

Go east to Olentangy River Rd. Turn left (north). CAS is just past Fawcett Center.

Park in west lot and enter building through N (main) entrance.

Please sign-in at ACS Hospitality table.

About the Topic:

The cooperative interplay between large scale organization and short range local conformational propensities ultimately directs the folding process of a protein and determines the stability of the native state. However, the degree of cooperativity between the collapse of a protein into a compact shape and the development of secondary structure is not well understood. Early lattice model studies suggested that the non-local interactions that drive protein collapse are strongly coupled to the formation of secondary structure and that compaction alone is sufficient to create secondary structure in proteins. In contrast, several subsequent theoretical and experimental studies concluded that the degree of local and global cooperativity was low when the collapse transition was driven only by non-specific, long range interactions. Nevertheless, a good correlation exists between relative decrease in hydrodynamic volume and increase in secondary structure content among proteins in the literature. In this lecture, the effect of non-local interactions such as global compaction on the conformational propensities of dendrimers having local secondary order will be addressed. The degree of compaction of the dendrimers is controlled by varying the structure of the linkage connecting the dendrons to the central core and measured by time-resolved fluorescence anisotropy (TRFA) measurements. Secondary structure is evaluated as a function of the hydrodynamic volume by circular dichroism.

About the Speaker:

Jon R. Parquette is an associate professor of chemistry at The Ohio State University where he has taught for six years, receiving tenure in 2002. Dr. Parquette received a B.S degree in chemistry from the University of California, Berkeley in 1988, and his Ph.D. in 1994 from Stanford University working with Barry M. Trost. At Stanford, he was an American Chemical Society, Division of Organic Chemistry Fellow. After completing postdoctoral work at Caltech in 1996, working with Peter Dervan as an American Cancer Society Postdoctoral Fellow, he became a faculty member at The Ohio State University. His research is currently supported by a National Science Foundation CAREER AWARD (1999). Professor Parquette's research is in the area of synthetic macromolecular and supramolecular organic chemistry, including the design and synthesis of functional macromolecules, for example, dendrimers, a specialized polymer molecule that emanates in a spherical manner from a central core structure. Professor Parquette has also worked on ways to decrease the effective student-teacher ratio in chemistry classes at Ohio State by developing cooperative learning strategies. Jon is a 10 year member of ACS and is also member of the Polymer Chemistry and Polymeric Materials Science and Engineering Divisions of ACS. He is the Chair-Elect of the Columbus Section.

SECTION NEWS

State and Local Government Affairs Committee

From a telephone conversation with Brian Dougherty of the Government Affairs Department of the national ACS, we learned that his department will emphasize funding issues, especially at the national level. The new Dept. of Homeland Security will need input on R & D funding priorities and on matters

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involving policies of unclassified research eligible for the open literature. Other funding priorities this year include NSF, DOE, and EPA. Help will be needed from local sections with contacting elected congress men and women.

Science education and teacher training in scientific fields continue to be priorities for his office. This topic will likely focus on selected State Governments and will rely heavily on input and involvement of local sections.

The Columbus Section committee expects to call a meeting in February to organize its activities and solicit ideas about new initiatives in 2003 from interested ACS members. Date and place will be announced to active members of the committee. To include new committee members and affirm the interest of past members, please send a message with your name and contact information to

Manfred Luttinger
rose@qn.net

Best wishes to all in the New Year,

Manfred (Manny) Luttinger
Committee Chair

National Chemistry Week 2003
by Steve Rosenthal

National Chemistry Week (NCW) is our most popular event in the section. Last year we had COSI on Wheels at the Columbus Library main branch. Thanks to GFS Chemicals for sponsoring this event. Also congratulations to GFS Chemicals on celebrating their 75th anniversary this year. A full page story on GFS Chemicals appeared in C&E News in November.

The Columbus Section was also mentioned in the NCW article that appeared in the Dec. 16th issue of C&E News. A photo of two children in their Halloween costumes was included. At the same time we also had some High School Chemistry Teachers giving demos at the Westerville Library. A special thank you to all the volunteers who participated in the NCW events.

This year NCW will take place on Oct. 19-25, 2003. The theme will be Earth's Atmosphere & Beyond. This is a special year for Ohio for a couple of reasons. First, 2003 marks the Bicentennial of the State of Ohio. Second, the Centennial of Flight is being celebrated this year. The first flight of an engine-driven, controlled heavier than air plane took place on Dec. 17, 1903 at Kitty Hawk, NC. The plane was built by Wilbur and Orville Wright, of Dayton, OH. This fits very well with the NCW theme this year. We will keep you informed as the planning progresses for NCW. Please mark your calendars, so that you can participate in the section's exciting, fun-filled events.

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ACS Council News

By Maria Rosenthal

Councilor's Report - Highlights

- **Finances.** The Society faced a 4.2 million, projected deficit for the 2002 fiscal year, due to investment losses. Still, the financial status is sound and measures are in place to cut deficits for this and next year.
- **Funding of Local Sections vs. Technical Divisions.** After various committees issued recommendations, the Board appointed a task force that will present a proposal at the New Orleans Meeting on how to provide funds for both entities that ensure continuity and fairness.
- **Goals of the Society**
 - **Diversity -** We will continue to work on increasing the number of underrepresented minorities in the Chemical Sciences, by mentoring students at all levels and broadening opportunities for leadership.
 - **Communications -** We will make opportunities to further the message of the benefits of chemistry to the public, at community events and through interactions with elected officers. We will strive to involve all members in carrying this message.

Your Councilors for 2003 are:

Don Songstad - Divisional Activities Committee
Maria Rosenthal - Minority Affairs Committee
Anne McCoy - New to Council

Alternate Councilors for 2003:

Ed King
Matt Platz
Jodie Harper

2003 Calendar of Events
Compiled by Maria Rosenthal

February

Wed. 12 Meeting at CAS - Jon Parquette

March

Wed. 12 Meeting at CAS - High School Chemistry Teacher of the Year

April

Thurs. 10 Meeting - College Junior and Senior Awards
TBA Chemistry Olympiad - High School Students National Test
Wed. 30 Columbus Technical Council Banquet at Clintonville Women's Club

May

Sat. 3 State Science Day - OSU Schottenstein Center
Wed. 14 Patterson-Crane Award Blackwell Inn, OSU (Tentative)

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October

TBA ACS President-Elect visits the Columbus Section
19-25 National Chemistry Week

December

TBA Joint meeting with the Columbus Chapter of the American Institute of Chemical Engineers

Note from the Editor

We welcome your contributions to your *Chemical Record*. Please submit them via postal or electronic mail to

George Greene
PO Box 360941
Columbus, Ohio 43236-0941
george.greene@abbott.com

Electronic mail contributions should be in a plain-text message or in a Word 97 (or earlier release) file attachment. *Please note that the deadline for submissions for the March Chemical Record is FRIDAY, FEBRUARY 14, 2003.* Thank you very much!

2003 COLUMBUS SECTION EXECUTIVE COMMITTEE AND BOARD MEMBERS

Compiled by Maria Rosenthal

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Treasurer

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Kids and Chemistry

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Membership

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National Chemistry Week

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Patterson-Crane Award

Ed King

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norman_rearick@aep.com

NEW SECTION MEMBERS

Compiled by Mike Miller and Ron Haney

We welcome the following members who joined the Columbus Section in 2002:

Kristjan M Arason

Kenneth A Beard

Markus Behnke

Chad E Bennett

Mary K Besl

Mustafa M Bob

Jeff Boff

Jerome P Bozon

Seth S Bradford

Nancy Brennan

Rachel S Brentlinger

Rudolf J Brits

Ruey Bruce

Jenny Butler

Linda M Carleton

Constance Carpenter Macko

Charles William Carper

Dong Chen

Wei Chen

Min C Cheng

Jennifer Chesnes

Jane C Chuang

Helene Citeau

Robinson Clayt

Gregory Conant

Elizabeth C Coogan

Mark John Cooney

Seth H Cooper

Stephanie E Cornell

Jason S D'acchioli

Francis Patrick Daly

Jeannine F Delwiche

Olga V Denisko

Tony J Dennis

Reuben Dharmaraj

Liu Dingfang

Bin Du

Stacy Hunt Duvall

Julie A Dzielawa

Ru Feng

David C Fenton

Marla L Frank

Kraig Fredrickson

Christopher Fricker

Jamie L Gable

Nathan Gano

Rahul Garg

Hillary Glover

Sandhya Gopalakrishnan

Bing Hao

Nathan J Harris

Philip Haselberger

Susan A Hatcher

Cynthia Hatfield

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Sheryl Hemkin
Franklin Thomas Henry
Robert J Herold
Joyce Hertzoff
Raymond J Higgins
W S Winston Ho
Amanda Hofacker
Carrie A Howland
Xubo Hu
Matthew R Hudson
Mark Humphrey
Mo Hunsen
James R Iben
Steidel Ilson
Ryan R James
James Jasperse
Zhonghua Jia
Jayaseharan Johnsamuel
Paul Frederick Johnson
Rodger R Kampf
Hani S Karam
Karen Karapetian
Alex W Kawczak
James S Keller
In Ho Kim
Meekyoung Kim
Sunghwang Kim
Meghan C Knapp
Jim A Krumpelman
Peter Lars Kuhlman
Periannan Kuppusamy
Isamu Kusaka
Erica M Kylo
Kevin R Lambrych
Hyunjung Lee
Jae Hwan Lee
Hua Liu
Xiaoping Liu
Ruiqiang Long
Heather L Longworth

Ryan Lynn
Ian C Macgregor
Suneer Malhotra
William A Manning
Richard Lawrence Markham
James R Marsh
Christopher B Martin
George P Maskas
Terry Joseph Mazanec
Ellsworth E McSweeney
Michael McBride
Keith N Mcdonald
John K Merle
Joyce Miller
Nicholas V Mockus
Michael A Mollet
Kefa K Onchoke
Jossian Oppenheimer
Thomas A Pavlosky
Alexei B Permin
Amanda M Pierman
Rhonda L Pitsch
Magdalena Popesco
Arfaan Rampersaud
Mary Anne Read
Don Keith Rider
J Whitfield Robbins
Linda I Rogness
Tim Ropp
Scott W Schweiger
David T Scott
Sandra Scott
George J Seipel
Alexander K Showalter
Basu Shubhayu
Rebecca L Sides
Roger Smith
Craig Sparks
John V Spirig
Jeremy K Steach
Michael L Stegemiller
Marshall Stepanian

A Gail Stout
Dawn L Stubbs
Supaporn Suwannakham
Panuwat Taerakul
Dan Taylor
Sean Vincent Taylor
Sherry Sara Thomas
Nuttha Thongchul
Grace C Tong
Brian C Tost
Robert Jason Trupp
Jeff W Turner
Lisa L Van Loon
Donn R Vermilion
Frederick A Villamena
Phillip R Wagner
Sherri A Walker
George A Walrath
Zhenhe Wang
Jeffrey R Warmkessel
Steven P Watkins
Jason L Weingard
Yi Wen
William Edward Whitlock
Byron Williams
David Winwood
Karin M Wohlever
Timothy Wolf
Richard M Wood
Jerry Woodruff
Patrick M Woodward
Eileen Workman
Di Wu
Zetang Wu
E Dale Wyatt
Elizabeth Yohannes
Paul W Youngman
Eugene Anthony Zarate
Dongping Zhong
Zhiping Zhou
Jay L Zweier

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