



New Haven Section

VOLUME 19, NUMBER 3, May, 2002

May 15, 2002 – NEW HAVEN SECTION MEETING

Dr. Arthur B. Ellis
Will speak on

The Chemist as a Materials Scientist

Section News and Announcements

- NEW WEB SITE
- Kirkwood Award announced
- National Chemistry Week Winners
- Teacher award
- Science Fair Winners

Note: *The Bulletin can now be seen on the Section's NEW web site at URL: <http://membership.acs.org/N/NewHaven>*

@ The Townline Restaurant; **Wednesday, May 15, 2002**

Dr. Arthur B. Ellis

Will speak on

The Chemist as Materials Scientist

The Townline Restaurant p.m. 280 Prospect Road Cheshire, CT (203) 758-3303	Social Hour: 6:00 Dinner: 7:00 p.m. Lecture: 8:00 p.m.
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Abstract Chemists have a unique opportunity to contribute to the development of materials science by preparing new compounds and by chemically controlling interfaces. These themes are illustrated using the mechanical, electrical, magnetic, and optical properties of metals, polymers, and semiconductors. Among the materials discussed are metal alloys that undergo phase changes that are used for shape-memory effects, semiconducting solid solutions that exhibit tunable luminescence, and fluids that can be controlled by electrical and magnetic fields. A variety of demonstrations linking the physical and chemical properties of materials to their synthesis, processing, structure, and composition will be presented.

Biographical Sketch Arthur B. Ellis received a B.S. degree in chemistry from Caltech in 1973 and a Ph.D. in 1977 from MIT, where he held a Hertz Fellowship. Ellis joined the Chemistry Department of the University of Wisconsin-Madison in 1977 and is currently Meloche-Bascom Professor. Ellis' research is focused on the electro-optical properties of semiconductors and their use in chemical sensor applications. He chairs and ad hoc committee that has created solid-state instructional materials for the chemistry curriculum, and in 1995, he served as chair of the Inorganic Division of the American Chemical Society. In 1997, Ellis was awarded the George C. Pimental Award in Chemical Education by the American Chemical Society.

Directions to the Townline Restaurant

From New Haven / Hamden: Follow Rte 10 east to Cheshire. Follow Rte 70 to Rte 68 toward Prospect. The restaurant is approximately 1 mile from the intersection on the Left.

From Points East: Follow I-84 West to Exit 26 (Rte 70). Follow Rte 70 toward Cheshire until the Rte 68 intersection. Turn Right onto Rte 68 and proceed approximately 1 mile to the restaurant on the left hand side.

From Points West: Follow I-84 East to Exit 26 (Rte 70). Follow Rte 70 toward Cheshire until the Rte 68 intersection. Turn Right onto Rte 68 and proceed approximately 1 mile to the restaurant on the left hand side.

(Wednesday, May 15, 2002)

Dinner includes fresh tossed salad with house dressing, bread, entree, coffee/tea and dessert.

Entree Choices:	Prime Rib au jus	\$20.00	
	Chicken Parmigiana		\$20.00
	Baked Stuffed Shrimp	\$20.00	

Prices include tax and tip.

Please make your reservation by contacting **Dr. Ali Banijamali by Friday, May 10, 2002**, at (203) 573-3220 or email to: ali_banijamali@cromptoncorp.com. A \$5.00 discount is available to high school/elementary school teachers, retired or unemployed chemists, and students. Please leave your name, telephone number, choice of entree, and number of reservations. Cancellations must be made 24 hours prior to the meeting or you may be charged for dinner.

You may also attend the lecture without the dinner. Simply notify Dr. Banijamali so he can keep the count of number of attendees, and arrive at the restaurant around 8:00 p.m. when the lecture normally begins.

- Local Section members who are seeking employment opportunities may place a "Situation Wanted" ad in an upcoming issue of this newsletter at no cost. Ads should be constructed in a format similar to the "Situation Wanted" listings, which appear in C&E NEWS. Submit a copy of your ad directly to smily4594@worldnet.att.net. We encourage all section members to read these ads and to provide networking support to assist in identifying potential employment opportunities.
- Is your resume up to date? An ACS booklet entitled "Tips on Resume Preparation" is available from your Local Section Career Program Coordinator. For information contact C. Fenn at carol.fenn@quinnipiac.edu or call me at (203) 582-8254.

The Ad Guidelines are as follows: Situations-wanted by Section member - **No Charge**. Non-members **\$ 20 for four lines**. Want Ads are **\$ 40 for a 4-line ad** and for a "**full-page (4 x 8 inch)**" ad, the fee is **\$75**.

Kirkwood Award

SPECIAL MAY SECTION MEETING, FRIDAY, MAY 3, 2002

2002 KIRKWOOD AWARD LECTURE AND BANQUET

KIRKWOOD AWARD RECIPIENT

DR. AD BAX

LABORATORY OF CHEMICAL PHYSICS, N.I.H.

LOCATIONS

Kirkwood Lecture

Coffee 3:30 PM

Lecture 4:00 PM

Room 110 (Lecture Hall)

Sterling Chemistry Laboratory

Yale University

Streets

225 Prospect Street

New Haven, CT

Banquet and Award Presentation

Cocktail Hour 6:00 PM

Dinner 7:00 PM

President's Room

Woolsey Hall

Corner of College and Grove

New Haven, CT

The Department of Chemistry of Yale University and the New Haven Section of the American Chemical Society have selected Dr. Ad Bax, Laboratory of Chemical Physics, National Institutes of Health, as the 2002 recipient of the Kirkwood Medal.

Dr. Bax is being recognized for his research associated with the development and application of improved NMR methods for the study of macromolecular structure and dynamics. These improvements manifest themselves by providing additional constructional restraints for obtaining higher definition of macromolecular structure, facilitate the resonance assignment process, provide for better characterization of internal and overall macromolecular dynamics, and extend the molecular weight limit of systems that can be studied.

The award, which is presented biennially, celebrates the life and work of John Gamble Kirkwood, 1907 – 1959, former Sterling Professor of Chemistry and Chair of the Department at Yale. The Kirkwood Award recognizes outstanding research contributions, experimental and theoretical, in the chemical sciences. Those selected for this award are among the highest achievers in intellectual originality and experimental virtuosity, characteristics in the spirit of those exemplified by professor Kirkwood. One way of judging the importance of the Kirkwood Award is to realize the stature of its recipients. Since the award was initiated in 1962, eleven of the twenty recipients subsequently have won the Nobel Prize.

Dr. Bax was born in Zevenbergen, The Netherlands. In 1978 he received an

“Ingenieurs degree” cum laude in Applied Physics from Delft University of Technology, The Netherlands. He remained at Delft, receiving his Ph.D. in Applied Physics in 1981. After receiving his Ph.D. he spent a year as a Post-Doctoral Associate in the Department of Chemistry at Colorado State University. In 1983 he moved to the Laboratory of Chemical Physics at the National Institutes of Health, where he advanced from Research Associate to his current position as Chief, Section on Biophysical NMR Spectroscopy.

Dr. Bax is author or co-author of approximately 300 publications. He is on the editorial boards of many prestigious journals, including: Current Organic Chemistry; Genes to Cells; and The Journal of Applied Magnetic Resonance. Several of the most recent honors and recognition he has received include: The 2001 Remsen Award, Maryland Chapter ACS, and the 2002 Hans Neurath Award of the Protein Society.

The title of the Kirkwood Lecture will be “Liquid Crystalline Media Offer New Opportunities in NMR Structure Determination”.

Abstract

To date, bimolecular structure determination by NMR has been based almost exclusively on local parameters, such as interproton distances obtained from NOE measurements, and torsion angles derived from J couplings. In contrast, dipolar couplings measured in macromolecules that are weakly aligned with the magnetic field provide information on the orientation of individual internuclear vectors relative to the molecular alignment tensor. Next to restraining local geometry, they therefore also have an intrinsic global character and can constrain the relative orientation of parts of a structure that are not connected by NOEs. Applications of this technology include the study of curvature in short DNA oligomers, refinement and validation of structures or homology models determined in the absence of dipolar couplings, and ligand-receptor docking.

RESERVATIONS

No reservations are needed for attendance at the lecture. All local section ACS members not affiliated with Yale University, who are interested in attending the banquet and award presentation, can make reservations by contacting Dr. David Smudin by phone at (203) 393-2163 (days) or by e-mail at dave_smudin@cromptoncorp.com. All local section members affiliated with Yale University can make reservations through Lee Buss in the Chemistry Department Office. The deadline for reservations is Monday, April 29th.

National Chemistry Week Winners:

POSTERS:

2001 Poster Contest Winners

STUDENT

TEACHER / SCHOOL

SAVINGS BOND AND T-SHIRT

Julian Venegas

Nancy Ryan
Mary T. Murphy School Gr 4
14 Brushy Plain Road
Branford, CT 06405

Leandra Brant

Debra Guyette
Lincoln Middle School Gr 8

Jenny Lee

North Haven High School Gr 10

T-SHIRT HONORABLE MENTION

Zachary Vaughn

Nancy Ryan
Mary T. Murphy School Gr 4
14 Brushy Plain Road
Branford, CT 06405

Stephen Weyel

Nancy Ryan
Mary T. Murphy School Gr 4
14 Brushy Plain Road
Branford, CT 06405

Emma Hammond

A. Rossonmembo
North Branford Intermediate Gr. 6
675 Foxon Road
North Branford, CT 06471

Kaitlin David

Debra Guyette
Lincoln Middle School Gr 8

GRAMMAR SCHOOL:

2001 Grammar School Winners

STUDENT

TEACHER / SCHOOL

SAVINGS BOND AND T-SHIRT

Vishal Patel

Brenda Pilletere
Holy Trinity School Gr. 6
11 N. Whittlesey Ave
Wallingford, CT 06492

STUDENT

Amanda Rodgers

TEACHER / SCHOOL

Kathy Lembo
Worthington Hooker School Gr
2
180 Cannner Street
New Haven, CT 06544

Kelly White

Kathleen Griffin-Daley
North Branford Intermediate
Gr. 6
675 Foxon Road
North Branford, CT 06471

Samantha Rivera

Nancy Ryan
Mary T. Murphy School Gr 4
14 Brushy Plain Road
Branford, CT 06405

Erica Carbone

Clare Leake
Doolittle Elementary School Gr
5
735 Cornwall Ave
Cheshire, CT 06410
203-272-3549

T-SHIRT

Kate Slavinski

Debra Guyette
Lincoln Middle School Gr 8

Sarah Greenblatt

Anna Lombardo
St. Bernadette School Gr. 4
20 Burr Street
New Haven, CT 06512

Helen Brechlin

Barbara Kelley
Melissa Jones School Grade 3
181 Ledge Hill Road
Guilford, CT 06437

Leigh Anna Kamin

Nancy Ryan
Mary T. Murphy School Gr 4
14 Brushy Plain Road
Branford, CT 06405

Joe Carlson IV

Kathleen Lahey
Salem School Gr 5
124 Meadow Street
Naugatuck, CT 06770

HIGH SCHOOL WINNERS:

2001 High School Contest Winners

STUDENT	TEACHER / SCHOOL
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SAVINGS BOND AND T-SHIRT

Meghan Connolly	Michelina Fazzino Branford High School 185 East Main Street Branford, CT 06405
Eric Bradley	Michelina Fazzino Branford High School 185 East Main Street Branford, CT 06405
Jeremy Anderson	Nancy Graham Hamden High School 2040 Dixwell Avenue Hamden, CT 06417
Danny J. Fain	Nancy Graham Hamden High School 2040 Dixwell Avenue Hamden, CT 06417
Paul Hively	Nancy Graham Hamden High School 2040 Dixwell Avenue Hamden, CT 06417

T-SHIRT

Hari Yalamanchili	David Tremblay West Haven High School 1 Circle Street West Haven, CT 06516
Michelle Sileo	David Tremblay West Haven High School 1 Circle Street West Haven, CT 06516
Samuel Anderson	Nancy Graham Hamden High School 2040 Dixwell Avenue Hamden, CT 06417
Chris Hayes	Michelina Fazzino Branford High School 185 East Main Street Branford, CT 06405

Chris Rucinski

Michelina Fazzino
Branford High School
185 East Main Street
Branford, CT 06405

Congratulations to all the participants whether they placed or not from the New Haven Section of the American Chemical Society for a job well done.

SCIENCE FAIR WINNERS:**CT State Science Fair Winners:**

The winners of our ACS, New Haven Section Awards for the CT State Science Fair held on March 13 - 16, 2002 at Quinnipiac University are invited to attend and display their presentations during the social hour of the May section meeting. Those winners are: Senior Physical Science (\$200 US Savings Bond) -- Miss Swati D. Deshmukh, "Organic Synthesis of Monomer Precursors for Piezoelectric Polymers"; 8th Grade Physical Science (\$100 US Savings Bond) -- Miss Katie L. Davis, "Can We Afford to Ignore Corrosion?"; 7th Grade Physical Science (\$100 US Savings Bond) -- Miss Lauren B. Spitz, "The Boiling Temperature of Salt Water vs. Sugar Water".

As chair of this committee, I would like to thank the volunteers who joined me for judging on Wednesday, March 13. Your help was greatly appreciated: Dr. Carol Fenn (Quinnipiac Univ.), Dr. Jim Kempf (Yale Univ.), Mr. Tom McGloin, Dr. Tom Reitz (Choate Rosemary Hall), Dr. Andri Smith (Quinnipiac Univ.), and Dr. Robert Snyder (Southern CT State Univ.).

Also, for anyone who did judging for the Science Fair awards, the CT State Science Fair is always grateful for your time and efforts.

Dr. James Kirby (Quinnipiac Univ.)

Words from Your Editor...

Please note the guidelines for want ads and situations-wanted to be put into the New Haven Section Bulletin. If you have any news of note for the section and want it in the section bulletin, contact me, the editor by email at smily4594@att.net - A. Richard Smilo, Newsletter Editor New Haven Section ACS.



DATED MATERIAL

New Haven Section Bulletin

A. Richard Smilo, Editor
199 Benson Road
Middlebury, CT 06749

