COMMEMORATIVE SYMPOSIUM

May 14, 2007
John M. Clayton Hall
Newark, Delaware

In honor of
ARTHUR B. METZNER
The University of Delaware’s
H. Fletcher Brown Professor Emeritus
of Chemical Engineering

Registration Information

www.che.udel.edu/forms/metznner

RSVP by May 4, 2007

Registrations may be submitted any of the following ways:
1. FAXED: 302-831-3009
2. ONLINE: www.che.udel.edu/forms/metznner/
3. MAILED: Metznner Symposium
150 Academy Street
University of Delaware
Newark, DE 19716

Symposium Information

The Department of Chemical Engineering will be hosting this symposium in honor of Dr. Metzner.

Information is also available by visiting us at www.che.udel.edu/forms/metznner.

Program - John M. Clayton Hall

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>8:30 a.m.</td>
<td>Continental Breakfast</td>
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<tr>
<td>9:00</td>
<td>Robert W. Gore: “Greetings”</td>
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<tr>
<td>9:10</td>
<td>Morton Denn: “Short Overview on the Scientific Contributions of Art Metzner”</td>
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<tr>
<td>9:30</td>
<td>Jan Mewis: “Suspension Rheology and Thixotropy”</td>
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<tr>
<td>9:50</td>
<td>David Boger: “Observation of Elastic Effects in the Flow of Polymer Solutions”</td>
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<tr>
<td>10:10</td>
<td>Antony Beris: “Polymer-Induced Drag Reduction”</td>
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<td>10:30</td>
<td>Coffee Break</td>
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<tr>
<td>10:50</td>
<td>Rakesh Gupta: “Flow and Heat Transfer in Nanofiber Suspensions”</td>
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<tr>
<td>11:30</td>
<td>Morton Denn: “Orientational Multiplicity and Transitions in Liquid Crystalline Droplets”</td>
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<tr>
<td>Noon-1:30</td>
<td>Lunch - Clayton Hall</td>
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<tr>
<td>1:30</td>
<td>Kurt Wissbrun: “Art Metzner’s contributions to the Society of Rheology”</td>
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<tr>
<td>1:50</td>
<td>Kenneth Chrisman: “Art Metzner’s Contribution to the Alyeska Pipeline”</td>
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<tr>
<td>2:10</td>
<td>Eli Ruckenstein: “My Initial Attempt in Transport Phenomena”</td>
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<tr>
<td>2:30</td>
<td>Family, Friends, Colleagues and Students: “Remembering Arthur Metzner - Teacher, Research Advisor, Colleague, Family Man, and International Mentor”</td>
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<tr>
<td>4:00-6:30</td>
<td>Reception - Clayton Hall</td>
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Arthur B. Metzner passed away suddenly at the age of 79 on May 4, 2006. He is survived by his wife of 58 years, Elisabeth “Betty” Kruger Metzner; his daughter, Elisabeth Faulkner of Charlottesville, VA; his son, Arthur P., daughter-in-law, Yemisrach, and grandson, Samuel Metzner, of Fort Washington, MD; his daughter, Rebecca, and son-in-law, R. Jeremy Clark, of Rome, Italy.

Arthur Metzner, a native of Alberta, Canada, received his bachelor’s degree in chemical engineering from the University of Alberta in 1948 and his doctorate from the Massachusetts Institute of Technology in 1951 under the direction of Warren K. Lewis. He joined the Department of Chemical Engineering at the University of Delaware in 1953 and was one of six faculty members that included Allan Colburn and Robert Pigford. He became the H. Fletcher Brown Professor in 1963. He served as chairperson of the Department of Chemical Engineering from 1970-77. During this period, several faculty were hired or were nurtured to eminence. These faculty included Morton Denn, Eli Ruckenstein, James Wei, Stanley Sandler, Kenneth Bischoff and Roy McCullough. He also invited several prominent foreign visitors, including G.C.A. Schuit from Holland, Ramesh Mashelkar from India and Gianni Astarita from Italy. He was elected to the National Academy of Engineering in 1979. He was presented with the University’s highest faculty honor, the Francis P. Alison Award, in 1981.

His industrial and governmental associations of substantial duration were with Air Products, Alyeska Pipeline Service Co., Colgate, the Defense Research Board of Canada, Dow, General Motors, Mobil, Merck, NASA, Union Carbide and Westvaco. He served on the advisory councils for chemical engineering at McGill University, MIT, Pennsylvania State University and Princeton. Art enjoyed an active consulting practice, and some of his research stemmed from these efforts. J.R. Anthony Pearson observed, “[Art Metzner] bothered to find out about real industrial problems, was full of insights into them, and felt that they were the proper starting points for academia in engineering…. [He believed] academies should look more deeply into them than industrial workers could afford to do”.

Examples of his efforts that became “textbook” material are the Otto-Metzner correlation for power consumption in the mixing of non-Newtonian fluids, the White-Metzner equation for the simulation of non-Newtonian flows, his series of papers on drag reduction with the use of small quantities of viscoelastic fluids, his analysis of the flow of fiber suspension, including a landmark paper on the extensional viscosity of fiber suspensions. His name is associated with the rheology of non-Newtonian fluids, and he was the editor of the Journal of Rheology.

He received the Junior (now Colburn) Award from the American Institute of Chemical Engineers in 1958. He was the first recipient of the American Society for Engineering Education Chemical Engineering Lectureship in 1963. Other awards included the William H. Walker Award and the Warren K. Lewis Award from the AIChE. He received the Bingham medal in 1977 and the distinguished service award from the Society of Rheology in 1997. He also served on the boards or executive committees of the Chemical Heritage Foundation, the American Institute of Physics and the Society of Rheology.

His 130 publications spanned the research areas of polymer processing, the processing of composite materials, fiber spinning and fluid mechanics. Art had great success as a mentor, a warm colleague and a friend. The most obvious role for a mentor is as a research adviser: Art directed 48 bachelor theses, 46 master’s theses, and 38 doctoral dissertations. At the beginning of the project, the mentoring was one way, but as the work progressed, Art encouraged and demanded independent thought and insight.

Art Metzner formally retired in 1997 but remained active in the department and in the profession until his passing. In the late 90s, the oil production of Prudhoe Bay dropped by half, and the Alyeska Pipeline Service company hired Art as a consultant to review their operations. Art gathered a group of experts who ultimately made strategic reductions in the number of pumping stations and made use of drag reduction insights. In the last three years at Delaware, Art brought this accumulated knowledge to the undergraduates in a design problem in the junior chemical engineering laboratory course. Successful solution of the problem required large amounts of reading and consultation with the master, Art Metzner. This is an example of “problem based learning” at its best.

The late Gianni Astarita of the University of Naples wrote that the most important thing that Metzner taught him was to seek intellectual and academic honesty. “Never lie to oneself. Fight against injustices and dishonesty, even at the cost of personal drawbacks...it was Art who taught me…. not in words, but by example - the importance of trying”.

Art Metzner had an illustrious career, and his efforts contributed greatly to the success of the department. A day before he left for Washington, DC in May 2006, he was his usual interesting self in a lunch discussion in the faculty lounge, and then he was suddenly gone! His impact as a researcher, teacher and inspirational leader will last for a very long time. In addition to his unequalled commitment to academic excellence and scholarship, he will always be remembered as a warm and generous human being, a genuine role model, and a superb mentor.
Registration Information

Hotel accommodations can be made in advance by calling the Courtyard by Marriott (adjacent to Clayton Hall), Newark-University of Delaware, 302-737-0900.

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City       State       Zip

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Country

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E-mail

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Telephone       Fax

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RSVP by April 25, 2007
sboulden@udel.edu    phone: 302-831-4500    fax: 302-831-3009

Department of Chemical Engineering