



UNIT OPERATIONS

OFFICIAL NEWSLETTER OF THE AKRON SECTION AIChE



April 2002

APRIL MEETINGS

AICHE/UNIVERSITY OF AKRON STUDENTS NIGHT

DATE: Tuesday, April 23, 2002

LOCATION: University of Akron
Gardener Student Center
Game Room
Building 3 on map

SPEAKERS: University of Akron Students

SCHEDULE: 6:00 Social
6:30 Program

COST: Regular \$10; Students Free

RSVP Call or email John Zuppo by
Friday, April 19th

Parking available in parking deck off of Exchange Street

ACCESS JOINT MEETING

DATE Thursday, April 25, 2002

LOCATION Tangiers Restaurant

SPEAKER **Dr. Sebastian Kanakkanatt**
United Polymer Technology,
Akron, OH

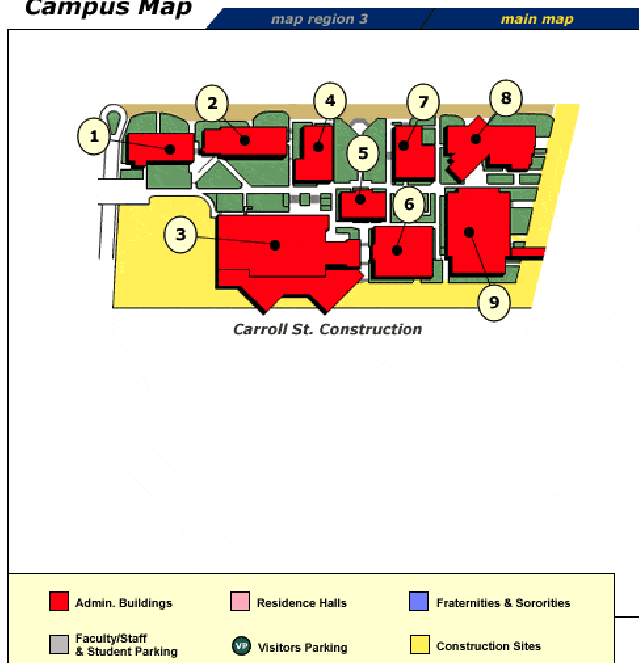
TOPIC "Going from Research to Commercialization - Polymer Candles"

SCHEDULE 5:15 Social
6:00 Dinner
7:00 Program

COST \$14 per person

RSVP Reservations to Ann Bolek
(330)-972-6264 or E-mail:
bolek@uakron.edu

Campus Map



Dr. Kanakkanatt obtained his Ph.D. and MS degrees in Polymer Science at the University of Akron, and BS from the University of Madras. He spent twenty-nine years at the University of Akron as Assistant Professor, Associate Professor, and Professor. He has published thirty-four papers, three chapters, two books and holds four patents and four more are pending. Currently Dr. Kanakkanatt is president of United Polymer Technology, LLC, one of the companies located in the Akron Industrial Incubator. The talk will describe the hard work needed to transform a concept to a marketable product, the difficult road to be taken from invention to manufacturing and marketing a product. The development of polymer candles involves various color change technologies and their applications. This has resulted in the production of the unbreakable candle on the market today.

Please Note: The Akron AIChE Section is seeking volunteers to serve as officers for this year. If interested, contact Tom Flynn by email tom.j.flynn@mcdermott.com or phone 330-829-7622.

FUTURE MEETINGS

LOCAL SECTION SCHEDULE FOR 2002

<i>DATE</i>	<i>TOPIC</i>	<i>LOCATION</i>	<i>SPEAKER</i>
April 25, 2002	ACCESS	Tangiers Restaurant	Dr. Sebastian Kanakkanatt
April 2002	Student Night	UA Gardener Center	University of Akron Seniors
July 2002	Cleveland Indians Game	Jacobs Field	
August 2002	Cleveland Indians Game	Jacobs Field	

NEWS FROM NATIONAL

Dear Colleagues:

On behalf of the Minority Affairs Committee (MAC) of American Institute of Chemical Engineers (AIChE), I am pleased to announce that nominations for the 2002 AIChE Minority Scholarship Awards for Incoming College Freshmen and College Students, and 2002 AIChE Outstanding Scholastic Achievement Award are being accepted. The deadline to submit nomination form is April 15, 2002. The nominations forms are available as pdf files by clicking on the following links:

<http://www.aiche.org/pdflibrary/mag/macschol02.pdf>
<http://www.aiche.org/pdflibrary/mag/maccf02.pdf>
<http://www.aiche.org/pdflibrary/mag/maccolschol02.pdf>

If you cannot view these files please follow the instructions at the end of this e-mail. Individual awards for the full academic year will be \$1,000.00 and \$1,500 for the Outstanding Scholastic Achievement. Nominees must be members of a minority group that is under-represented in chemical engineering, i.e., African-American, Hispanic, Native American. Nominees for the incoming freshmen (high school seniors) scholarship awards are encouraged to choose a course of study leading to a degree in science/engineering. The Incoming College Freshmen Scholarship Award, first awarded in 1994, is based on the nominee's academic record, participation in school and work activities, reason

for choosing science/engineering, and financial needs. While the College Students Scholarship Award, also first awarded in 1994, is based on the nominee's academic record, participation in AIChE student chapter and professional activities, career objectives, and financial need are also considered. And the Outstanding Scholastic Achievement award first awarded in 1996 is based on the nominees academic and scholarly achievements, and exemplary outreach activities. Please feel free to forward this e-mail to those that may benefit from the scholarships. Thank you.

Emmanuel A. Dada, Ph.D.
 Chairman, AIChE MAC Student Awards.

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Network, learn, and enhance your career at AIChE's 2002 Spring Meeting, March 10-14, in New Orleans.

Register today: <http://www.aiche.org/spring>.

LOCAL AREA NEWS/EVENTS

FEBRUARY MEETING

NATIONAL ENGINEERS WEEK BANQUET "FUEL CELL TECHNOLOGY AND APPLICATIONS"

by Tom Flynn

The Akron area National Engineers Week Banquet was held at the Emidios Banquet Center. The Akron local section of AIChE awarded University of Akron student Matt Stefanik the Student of the Year Award.

The featured speaker was Bill Schweizer, Director of SOFCo of McDermott Technology, Inc presented an overview of fuel cell technologies and their applications. Mr. Schweizer described the basic principles of fuel cell operation as well as the many types of fuel cells currently being developed. New applications of fuel cells include automobiles, stationary power, portable power such as auxiliary power units in luxury automobiles and recreational vehicles.

AKRON SCIENCE AND TECHNOLOGY EXPO

by Joanne Compton

Page Kagafas, a 6th grader from Litchfield Middle School, won the AIChE special award at the Akron Science and Technology Expo on March 2, 2002. Her teacher is Mr. Mark Black. Page received a certificate and \$50 cash prize. The Expo is for the entire Akron school district, and covers grades 6-12. Approximately 200 projects competed for prizes.

The title of her project was "No matter the climate your house may be in, your paint should hold up through thick and through thin", and was classified in the Environmental category. Hypothesizing that acid rain will affect exterior paint more than heat, wind, or cold, Ms. Kagafas painted birdhouses with inexpensive exterior paint in a dark color, reasoning that inexpensive paint and darker color would give quicker results. In addition to a control, she subjected one house to wind (from a fan in her basement), one to acid rain (pumping a vinegar solution over the house), one to light and heat (with a sun lamp), and one to winter temperature (in the freezer). The experiment ran 12 hours/day, for 25 days.

Acid rain caused the most change to the paint finish. The sun/heat and cold houses showed slight change in finish, and wind showed no effect compared to the control. Based on these results, Page concluded that 25 days was not enough to show dramatic results, and that her basement did not have enough dust or grit in it to simulate windy conditions outdoors. She decided that the paint companies were right to test their products for long periods of time in actual environmental conditions,

to take into account the combined effects of sun, heat, cold, and wind on exterior paint finish.

Congratulations, Page!

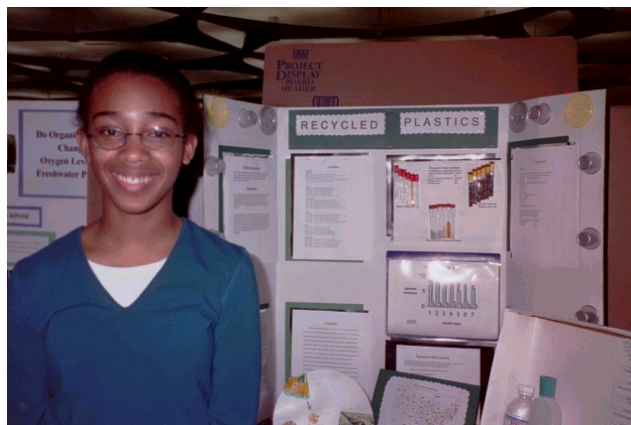
WESTERN RESERVE SCIENCE DAY

by Joanne Compton

Alicia Boykin, a 9th grader from Walsh Jesuit High School, won the AIChE special award at the Western Reserve Science Day on March 16, 2002. Her teacher is Ms. Mary Truax. Alicia received a certificate and \$100 cash prize. The Western Reserve Science Day is the regional science fair competition, with winners going on to Ohio State University for the statewide competition, and covers grades 7-12. Approximately 300 projects competed for prizes.

The title of her project was "Recycled plastics reduce environmental waste and improve agricultural crop and plant growth", and was classified in the Environmental category. Ms. Boykin's test matrix consisted of 6 different plastics (recycle codes 1-6) and three types of seeds (soybeans, string beans, and corn). After grinding each plastic in a blender, she amended soil in growing trays, and planted seeds. Over several weeks, she measured the plant growth, leaf appearance, stem, and soil moisture. She concluded that, in general, pulverized plastics do work as soil amendments, and can reduce waste sent to landfills while improving crop growth. For string beans, plastic #1 (PETE) retained the most moisture and helped grow the tallest plants. For soybeans, plastic #1 grew the tallest plants, but plastic #4 retained slightly more moisture than the other soil amendments. For corn, plastic #4 helped grow the tallest plant, and plastic #2 retained slightly more moisture than the others did.

Congratulations, Alicia!



AICHE LOCAL SECTION EXECUTIVE COMMITTEE

Position	Name	Phone	E-mail
Chair	Dan Jones	(330) 338-8029	djones1@neo.rr.com
Vice-Chair	Gia Hudak	(330) 588-2711	gia.hudak@colaik.com
Secretary & Newsletter	Tom Flynn	(330) 829-7622	tom.j.flynn@mcdermott.com
Treasurer & E-week Rep.	John Zuppo	(330) 796-6308	john_zuppo@goodyear.com
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AIChE Web Sites

Local: <http://members.core.com/~aiche/>

National: <http://www.aiche.org>

Cleveland: <http://ctsc.org/aichecle>



AKRON SECTION AICHE

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ADDRESS CORRECTION REQUESTED