

International Chemistry Celebration Concludes With a Flurry of Activity

All good things must come to an end—the 20th Century, the 2nd Millennium and the 1st International Chemistry Celebration (IChC).

In a fitting culmination, IChC is ending with a flurry of events and celebrations around the world. In the final four months of 1999, national celebrations of

organizations in 52 countries have organized IChC activities. And in the United States alone, more than 70% of the 188 local sections have participated.

These creative chemists have organized an extraordinarily wide range of activities—from contests to banquets, from indoor lectures to outdoor hikes, from hands-on classroom activities to press conferences. In the midst of this broad range of activities, however, three activities deserve special mention:

“A World of Color: An International Search for Natural Dyes”

This unifying activity booklet, developed by an international team of chemical educators, was translated into 14 languages. Children on six continents (we're still waiting for a report from Antarctica) carried out hands-on activities, such as making plant rubbings, extracting indigenous dyes and exploring color changes with household acids and bases. Many of these students used the Internet to enter their data into our database, and their compiled results are now available for viewing on the IChC Web site.

“A Global Salute to Polymers”

The Global Salute program featured a series of local events celebrating the positive impact of polymers, both natural and synthetic, on everyday life. In each event, an “achievement” from the

world of polymer chemistry was honored by the presentation of a commemorative plaque.

“Achievements” were broadly defined to include individual scientists, discoveries, industries and laboratories. To date, a total of 80 Global Salutes have been registered from local sections all over the United States. Many of these Global Salutes have attracted significant local media attention. One enduring benefit of these salutes has been to foster improved relations between academic, industrial and governmental scientists and organizations at the local level.

International Historic Chemical Landmarks

As part of the International Chemistry Celebration, the ACS's National Historic Chemical Landmarks (NHCL) program was extended internationally for a special group of designations. The program honors milestones in the history of chemistry and chemical technology. To highlight the cooperative and international nature of chemistry, these landmarks were designated jointly by the American Chemical Society and a corresponding national organization in the host country. Landmarks have been designated as part of IChC festivities in Canada, France, Germany, India, Mexico, the United Kingdom and the United States. (For more details on the recent landmark designations in Mexico, the UK and the US, see page 3.)



Photo at upper left: At the National Plastics Center and Museum in Leominster, MA, V. Wilcox, left and receive a “Polymer Salute” from M. Strem.

Photo at lower right: Officials from the Sociedad Química de México and the Officials from the America Chemical Society designate an International Historic Chemical Landmark in Monterey, Mexico. Pictured, from left to right, are J. Noriega Bernechea, E. Wasserman, H. Whalen, and A. Canales.

chemistry have been held in Canada, France, Sweden, the United Kingdom and the United States. The themes of these celebrations—from “Celebrating Polymers” (United States) to “Chemistry for Health” (United Kingdom) to “Chemistry and Beauty” (France)—illustrate the many ways that chemistry affects and enhances our everyday lives.

These celebrations also illustrate the creativity and commitment of chemists around the world. According to the latest reports we have received, individuals and



In the US, Chemists Celebrate National Chemistry Week—and Polymers

Chemists like to link things together. Sometimes they start with lots of small, similar molecules and link them together to form one large molecule—a polymer. And sometimes they start with lots of public awareness activities and events across the United States and link them together to form a nationwide celebration—National Chemistry Week (NCW).

Now in its 12th year, NCW has become a vital component of the annual program of activities for the 188 ACS local sections. NCW provides them with the opportunity to work with local schools, museums, universities, businesses and industries.

Celebrated November 7-13, National Chemistry Week 1999 (NCW-99) brought to a close the year-long International Chemistry Celebration in the United States. Taking a cue from the highly successful “Global Salute to Polymers” program created for IChC, the unifying local theme for NCW-99 was “Celebrating Polymers.”

This year’s unifying hands-on activity encouraged members of the public (e.g., students in classrooms, shoppers in malls and families in science museums) to observe the properties of the polymer sodium polyacrylate. Can this thirsty polymer, familiar to many as the super-absorbent ingredient in disposable diapers,

really absorb 800 times its own weight of water? Local sections distributed nearly 60,000 copies of *ChemMatters* and 150,000 copies of *WonderScience* to students and teachers across the country.

A second NCW unifying event, designed for local section participation only, was a photo contest that challenged participants to photograph a scene, an activity or object during their NCW event that conveyed the theme “Celebrating Polymers” and also reflected the mission and spirit of NCW.

A third common element in many NCW events this year was a “Global Salute to Polymers” ceremony. Many sections linked their IChC and NCW efforts by honoring local industries, organizations and/or individuals who play important roles in the world of polymer chemistry.

For an extensive look at NCW-99, see the feature article in *Chemical & Engineering News* (scheduled to appear in a mid-December issue).



United Kingdom Celebrates Chemistry Week, November 19-26

Celebrated every two years since 1988 by the Royal Society of Chemistry, Chemistry Week aims to promote a positive image of chemistry within the local community, across local regions and throughout the UK and Ireland.

People who take part include school children, local community groups, civic groups, government officials and the media. The Society’s 35 local sections take a leading role in organizing events such as shopping mall demonstrations, public lectures, radio interviews, museum exhibits, concerts and poster competitions.

This year the theme was “Chemistry for Health,” highlighting the important contribution the chemical sciences make to the health and life sciences. For example, a November 22nd event at the Science Museum, titled “Throwing Light on Modern Medicine,” explored the uses of light and color chemistry in the diagnosis and treatment of various medical conditions. The event was packed



Shakespearean element in the



Articles and activities that discuss sodium polyacrylate were published in the fall issues of *WonderScience* and *ChemMatters* magazines. *ChemMatters*, a magazine for high school students is also available online www.acs.org/ncw/cm_oct99.pdf.

Chemical Landmarks Designated in Mexico and the US

In a series of three coordinated ceremonies (at Pennsylvania State University on October 1; in Monterrey, Mexico on October 19; and in Mexico City, Mexico on December 2), officials from the Sociedad Química de México (SQM) and the American Chemical Society (ACS) recognized the first practical synthesis of progesterone and the creation of the Mexican steroid hormone industry.


These landmark achievements are part of a fascinating story that stretches across two countries, includes colorful scientists such as Russell Marker and Carl Djerassi, features a prominent role for a Mexican yam, and ends with the development of a pill that would have profound consequences for modern society.

Russell Marker (1902-95) achieved the first practical synthesis of the pregnancy hormone, progesterone, using a process now named the "Marker degradation." He then proceeded to discover an economical source of his starting material in a wild species of Mexican yam. Unable to persuade American pharmaceutical companies to support his project, he founded Syntex S.A. in Mexico. As other scientists and companies became involved, the Mexican steroid hor-




Russell Marker searched across the southwestern U.S. and in Mexico for a plant steroid that could serve as the starting material for a new synthetic pathway to progesterone. Eventually, he found his source in a wild yam that grew in the Mexican state of Veracruz.

mone industry flourished. And in 1951, Carl Djerassi's group at Syntex designed and synthesized norethindrone, the active ingredient in the first birth control pill.

The creation of the Mexican steroid hormone industry has provided a strong foundation for chemical research and education in Mexico. As Jaime Noriega Bernechea, President-elect, SQM, pointed out in his remarks at the Oct. 2 ceremony, "The debt of gratitude that Mexican research and education owe Syntex cannot be overshadowed by anything... and it was Marker who started it all." 

with colorful chemistry demonstrations and explosions and also featured medical applications of lasers.

One of the more innovative activities in this year's celebration was a nationwide contest, "Name An Element." Contestants were invited to invent a new element, name it and list its properties. The element could be named after a person, place, object, activity or anything else. The properties might relate to why that thing is famous. Does it have a charge? What state is it in (solid, liquid or gas)? How does it react and with what other elements does it react? Examples suggested by the RSC included Shakespearium, Blairium, Politicium, Taxium, and Administratium? (Did you know that Administratium, isolated from a repulsive amorphous material known as Bureaucratite, is inert but can be detected chemically because it impedes every reaction it comes in contact with.) For more details on the contest and on Administratium, visit the RSC Web site (www.rsc.org/lap/publicaf/chemweek.htm).

A special highlight of this year's Chemistry Week was the designation of an International Historic Chemical Landmark to mark the discovery and manufacture of penicillin. The presentation was made on November 19 at the Sir Alexander Fleming Museum, St. Mary's Hospital, London, United Kingdom. According to the citation, the historic landmark designation honors the work of many scientists, notably Sir Alexander Fleming who discovered penicillin in 1928, the scientists at Oxford University who produced enough of the chemical for initial clinical studies, and the scientists at industrial and government laboratories in the United States who made the scale-up of the product during WWII. It seems only appropriate that the Royal Society of Chemistry and the American Chemical Society worked jointly on this designation. After all, it was the cooperative work of scientists in the UK and US that took penicillin from an intriguing discovery to a "miracle drug" used extensively around the world. 



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UPCOMING MEETINGS & CELEBRATIONS

International Chemistry Celebration 1999

Mission Statement

To enhance the public appreciation of chemistry and its positive contributions to everyday life throughout the world, and to enhance communication among the chemical societies and organizations worldwide.

Although IChC 1999 will pass into the history books in a few weeks, its mission of enhancing public appreciation of chemistry endures into the future. Many organizations have already started planning their public outreach activities for the year 2000. Here is a sampling of those events.

April 30 – May 6 National Science & Technology Week in the United States is sponsored by the National Science Foundation. (www.nsf.gov/nstw)


July 2-11 The 32nd International Chemistry Olympiad, with teams from more than 50 countries, will be held in Denmark. (www.icho2000.gymfag.dk)

July 16-23 Australian National Chemistry Week is sponsored by the Royal Australian Chemical Institute. The Australian National Chemistry Quiz, with participants throughout the Asia Pacific region, is scheduled for July 20. (www.raci.org.au)

September 22-23 Chemistry Day (Kemins Dag) in Sweden is sponsored by the Swedish Chemical Society and the Association of Swedish Chemical Industries. (www.keminsdag.com)

October 15-21 National Chemistry Week in Canada is sponsored by the Chemical Institute of Canada. www.chem-inst-can.org (www.chem-inst-can.org)

November 5-11 National Chemistry Week in the United States is sponsored by the American Chemical Society. (www.acs.org/ncw)


To enhance communication about these ongoing celebrations in the year 2000 and beyond, we will maintain an up-to-date list and calendar on our National Chemistry Week Web site www.acs.org/ncw. If you would like us to include information about your National Chemistry Week or Chemistry Day, please keep us informed by e-mail, fax or mail (see contact information on page 3). 

What Did We Accomplish and Learn?

Now that the International Chemistry Celebration is concluding, it's a good time to look at what we've accomplished and what we've learned. As outlined in our mission statement (at left), we had two key goals—to enhance public appreciation of chemistry and to enhance communication among the chemical societies. How did we do?

You can help us answer that

question by completing a survey on your IChC activity. A copy of the survey report form is available online; just click on the "send us" link from the IChC Home page (or go directly to the form at www.acs.org/ncw/participating.html #). We can also send or fax you a copy of the survey report form; just let us know at the IChC office. We request that all survey forms be completed by December 31, 1999.

As we collect this information, we will be preparing a final report, to be available by late March, 2000. The final report will be made available on the IChC Web site and will be mailed to all official participants on our mailing list. If you do not receive a copy of the final report and would like one, please let us know at the IChC office (see contact information on page 3). 



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