

# NETWORKING

## How Chemists Form New Bonds

“Networking” may be a trendy buzzword, but it’s actually almost as old as chemistry. These groups of individuals forged in workplaces or cyberspace provide important benefits to individuals in jumpstarting and advancing careers and to the broader chemical community.

Chemists know how to form bonds. We gather the starting materials, place them in the reaction vessel, mix the reagents under the right conditions—and things happen. Atoms, energy, and information are exchanged at the molecular level. Materials with new and useful properties emerge.

This formula for success works not only with molecules in the laboratory but also with careers in the workplace. Just gather a group of chemists, put them in a room, and let them exchange information and energy. The chemists will emerge with new perspectives to advance their careers.

In the trendy jargon of today’s professional world, this is called networking. However, it’s nothing new to chemists—we’ve been doing it for a long time. In 17th-century England, Robert Boyle, of “Boyle’s law” fame, was instrumental in forming the Royal Society. He called it “our invisible college,” and this first network of scientists helped launch the Scientific Revolution. In 1876, a group of chemists gathered in New York to establish another—the American Chemical Society (ACS), today’s largest scientific society.

### Networks bring benefits

A network is a group of individuals within an organization or community that acts as a resource for members and the organization. It can be formal or informal and can vary in size from 15 to 1,500 members (and beyond). Members can meet face-to-face or in cyberspace. A network can exist within an organization, or it can cut across many organizations within a community of common interest. All networks, however, share one important feature—they provide important benefits to the individual members and to the larger organization or community. Individual chemists have found that networking can help them

- exchange information,
- build valuable job contacts,
- learn the culture and politics of an organization, and
- develop communication and leadership skills.

Networking is particularly important for women in chemistry. According to a recent study of 30 women scientists (*Women Scientists in Industry, A Winning Formula for Companies*, Catalyst, 1999), networking is one of five critical strategies for the

success of women scientists in industry.

In addition to the four benefits mentioned above, women scientists also report that networks help them

- gain visibility with senior scientists and executives in their organizations,
- find mentors, and
- deal more effectively with issues such as work/life balance and sexual harassment.

The same study that touts the importance of networks, however, also reveals that women are more likely to be excluded from informal networks. The stereotype of an “old boys’ network” still has some reality in today’s workplace and can present a significant barrier to the advancement of women in chemistry.

One important solution to this problem has been the establishment of women’s networks. These networks are thriving and are helping to change the face of the chemistry community.

### Women’s networks in industry

In the chemical industry, women’s networks provide benefits, not only to the individual members but also to the companies themselves. Because networks can help achieve key corporate goals, corporate

executives support them. Networks

- serve as a vehicle for organizational change;
- educate and advise company and management about women's issues;
- recruit and retain a diverse workforce, including women and minorities;
- facilitate information exchange across functions and locations; and
- foster career development.

The importance of women's networks is highlighted annually when Catalyst (see sidebar, p. 15) hands out its prestigious Catalyst Awards. Bayer Corp. received a Catalyst Award in 2002 for its initiative "Bayer Women: Leaders for the Global Marketplace." Bayer's wide-ranging approach to preparing women for leadership positions features employee networks, multiple mentoring programs, career development programs, succession planning with executive accountability, and diversity awareness training.

In 2001, General Mills got a Catalyst Award for its initiative "Women in Leadership: The Power to Build the Future." The initiative centered on the Women's Forum Offsite, an annual meeting at which senior-level women and senior management (including the CEO) address critical issues.

Most industry networks are internal, allowing the members to exchange proprietary information and work together to achieve corporate goals. Examples of companies with active women's networks include 3M, Dow Chemical, GE, General Mills, Kodak, Lubrizol, and Merck.

### Women's networks in academe and government

Networking can be important at all stages of a chemist's career—whether she is a graduate student or a tenured faculty member. At many universities, Women in Science and Engineering (WISE) groups have been formed to provide networking opportunities for women.

In the Department of Chemistry at the University of Minnesota, Minneapolis, the WISE team provides a resource for women graduate students and postdocs, with the goal of improving the recruitment and retention of women students. Letitia Yao



#### University of Minnesota WISE

The Women in Science and Engineering (WISE) networking group in Minnesota's chemistry department includes faculty, staff, postdocs, and graduate students.

(ACS '89), a nuclear magnetic resonance (NMR) research associate, said the group holds monthly lunch seminars, an annual workshop on career issues, and a departmental seminar by a prominent woman chemist. "We try to foster a closer community among the women graduate students," Yao explained. "When you join a research group, you're often isolated. Maybe you're the only woman in the group."

COACH, the Committee on Advancement of Women Chemists, is another women's network with a strong presence in academe. It holds full-day workshops on professional skills development for tenured women faculty at every ACS national meeting. Leaders coach women in negotiation, management, and leadership skills.

Women scientists employed in government are also strong supporters of networking. Examples include the Bethesda Chapter of Association for Women in Science (AWIS; including many members from the National Institutes of Health); the Women in Science group at the Los Alamos National Laboratory; and WISE chapters located in the Environmental Protection Agency headquarters, regions, and laboratories around the country.

Networking is not just for women, of course, and many of the groups mentioned

in this article welcome men and women chemists as members.

Whether in industry, government, or academe, these examples illustrate how chemists are doing what they do best—forming new bonds. Robert Boyle would be proud to see how far we've come in the past 350 years. ◆

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## Networking resources

### **ACS Women Chemists Committee**

[membership.acs.org/w/wcc](http://membership.acs.org/w/wcc)

The ACS Women Chemists Committee attracts, develops, and promotes women in the chemical sciences. WCC programs and activities include symposia and workshops at national and regional ACS meetings, awards, publications, and an online mentoring program.

### **Association for Women in Science**

[www.awis.org](http://www.awis.org)

With more than 5,000 members and 76 local chapters in 42 states, AWIS is dedicated to achieving equity and full participation for women in science, math, and engineering. Local chapters supplement national activities by facilitating networking among women scientists.

### **Catalyst**

[www.catalystwomen.org](http://www.catalystwomen.org)

An organization that helps business and professional firms advance women, Catalyst presents the Catalyst Awards for new approaches to recruitment and advancement of women managers. Check out its book, *Creating Women's Networks: A How-To Guide for Women and Companies*.

### **Committee on the Advancement of Women Chemists**

[coach.uoregon.edu](http://coach.uoregon.edu)

COACH consists of individuals concerned about the slow progress in reaching gender equity in the chemical sciences. Programs include professional skills development workshops; research on gender issues in the chemical sciences; and coaching, mentoring, and networking activities at all levels.

### **MentorNet: The E-Mentoring Network for Women in Engineering and Science**

[www.mentornet.net](http://www.mentornet.net)

Established in 1997, this nonprofit organization emphasizes "e-mentoring," using e-mail to facilitate mentoring relationships. It matches mentors (female and male scientists and engineers from industry and government) with female students at the undergraduate and graduate level.