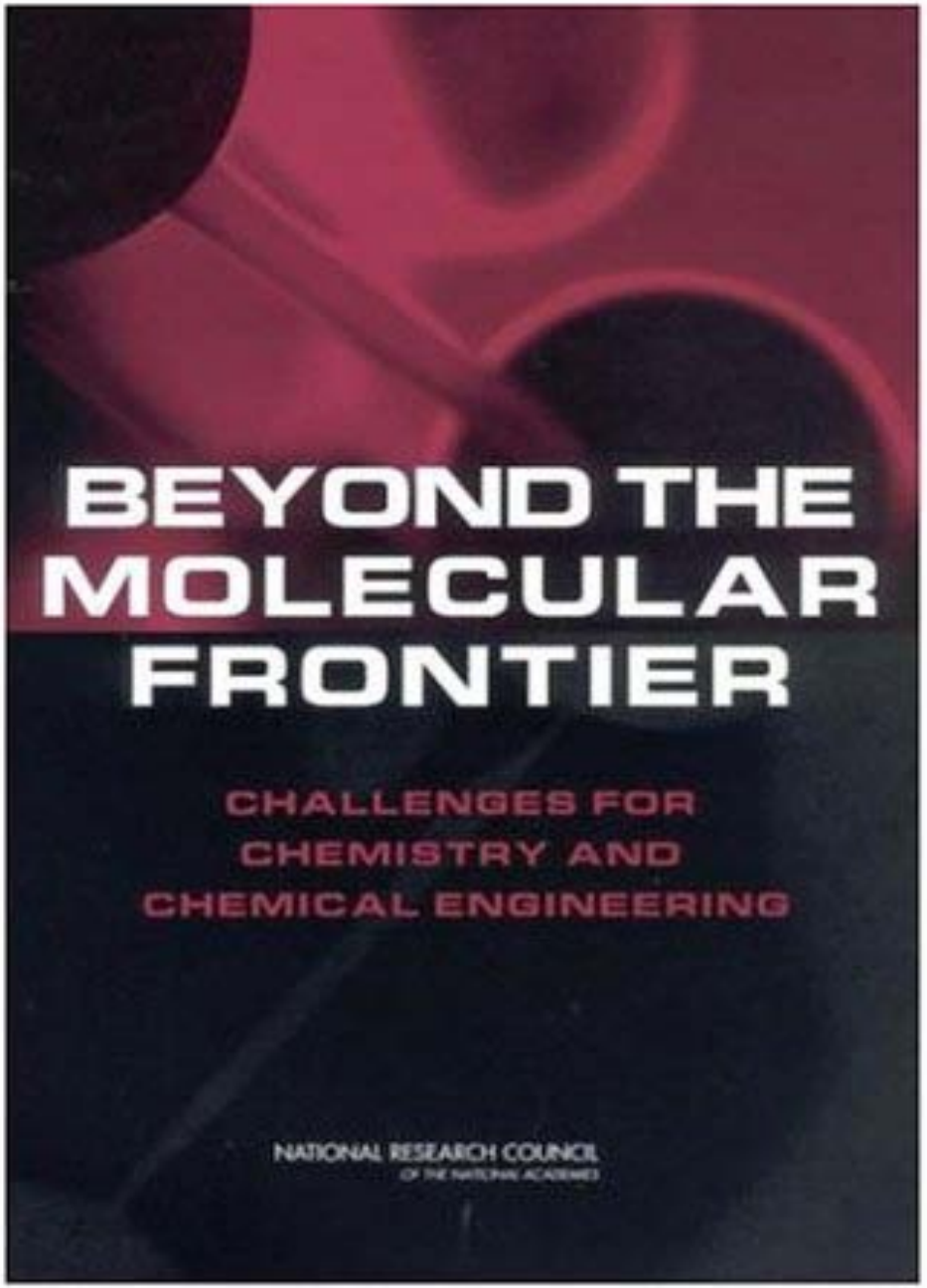
Private Ground Water Well Fast Facts

Over 15 million U.S. households rely on private, household wells for drinking water .

If polluted ground water is consumed, it could cause illness. Ground water pollution can be caused by seepage through landfills, failed septic tanks, underground fuel tanks, fertilizers and pesticides, and runoff from urban areas.

It is important that private ground water wells are checked regularly to ensure that the water is safe for drinking.

Typically, private water systems that serve no more than 25 people at least 60 days of the year and have no more than 15 service connections are not regulated by the EPA.
http://www.cdc.gov/healthywater/drinking/private/wells/

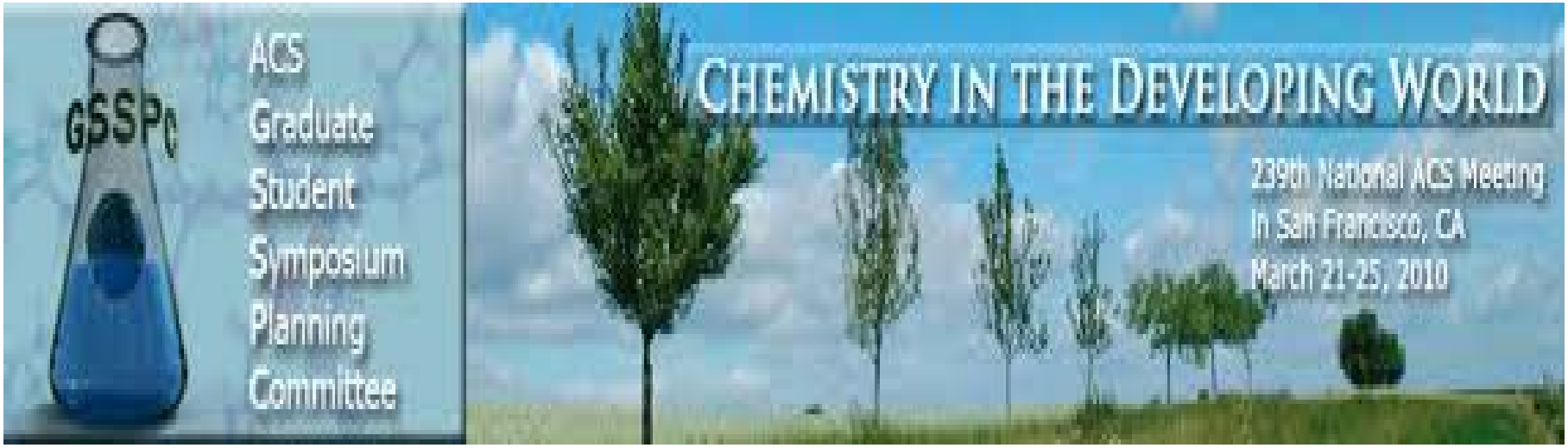

BEYOND THE MOLECULAR FRONTIER
CHALLENGES FOR CHEMISTRY AND CHEMICAL ENGINEERING
NATIONAL RESEARCH COUNCIL

The two faces of chemistry in the developing world

- C. N. R. Rao[1]

Nature Chemistry 3, 678-680, 2011

Chemistry creates both agony and hope in less-developed countries — although it may provide solutions to many of the problems faced there, the lack of expertise and poor infrastructure renders research extremely difficult. What challenges must scientists overcome and what can be done to improve matters?



Alter rewards in favor of solving real problems

- The rewards favor studying the Model at the expense of what's being modeled
- The lure of beauty is a powerful attractor away from the mess of reality
- We often shift from the "truly ill to the worried well" – when your problems won't yield to your methods – redefine the problem

Chemistry in Society

- What about taking a look at chemistry as a society?
  - How relevant?
  - How welcoming?
  - How diverse?
  - How open to multiple entry pathways?

Occupational Distribution Differs Between Men and Women
While women are the majority of professional employees, their occupational distribution remains different from men.

- In 2009, 92% of registered nurses, 81.9% of all elementary and middle school teachers, and 97.8% of all preschool and kindergarten teachers were women.
- In comparison, only 7.1% of all civil engineers, 9.4% of electrical and electronics engineers, and 10% of all aerospace engineers were female.
- In 2004, only 37% of all Screen Actors' Guild television and theatrical roles went to women. In 2006, only 26% of all female roles went to women over the age of 40, while men over 40 got 40% of all male roles.

http://www.pay-equity.org/PDFs/ProfWomen.pdf

Still, the different distribution of men and women among specific professional occupations was less pronounced in 2009 than in 1985:

- The percentage of technical writers who were female increased from 36% to 50.4% between 1985 and 2009.
- Women pharmacists increased from 30% in 1985 to 49.3% in 2009.
- The percentage of female chemists increased from 11% in 1985 to 30% in 2009.
- In 2008, women accounted for 32.4% of all lawyers, 32.2% of all physicians and surgeons, and 68.8% of all psychologists.27

For the 2008–09 academic year, the percentage of women receiving bachelor's degrees in chemistry was exactly the same as last year at 49.9%, or half of the total graduates.

The number of men receiving a bachelor's rose from 6,979 to 7,304, a 4.7% rise, and the number of women increased from 6,942 to 7,273, a 4.8% rise.

The percentage of women receiving Ph.D.s, on the other hand, is growing. Schools conferred 988 doctorates on women in 2008–09, up from 853 the year before, for a 15.8% rise. For men, 1,555 Ph.D.s were awarded, up from 1,509, which is a 3.0% jump.

The percentage of women awarded Ph.D.s last year was 38.9% of the total, up from 36.1% in 2007–08.

Table 3 | Tenure-track faculty in 'Top 50' science departments by discipline, 2001–02

Discipline	Women (%)	African American (%)	Latino (%)	Native American (%)	White (%)
Chemistry	12	1.2	1.8	0.2	90
Physics	6	0.6	1.9	0.1	86
Astronomy	13	1.2	1.2	0.0	91
Mathematics	8	0.9	2.6	0.1	85
Computer Sci.	11	0.3	1.3	0.0	78
Biology	20	1.0	1.9	0.1	89

Source: Commission on Professionals in Science and Technology Professional Women and Minorities *A Total Human Resources Data Compendium* 16th edition (November 2006); www.cpst.org