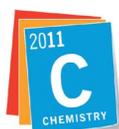


## Women in Chemistry – Triumphs and Opportunities



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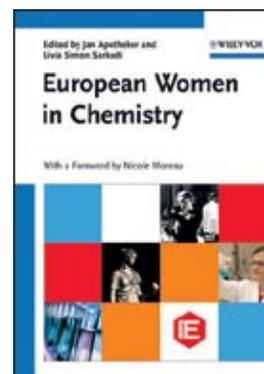
One hundred years ago, a passionate woman made history. Not only was this woman the first woman to be awarded the Nobel Prize in Chemistry, but she was also the first two-time Nobel Laureate: Marie Skłodowska Curie. After winning the Nobel Prize in Physics in 1903, Marie Curie was awarded the Nobel Prize in Chemistry for her discovery and investigation of radium and polonium. Arguably the most famous woman in science, Marie Curie has served as an example and role model for many young aspiring scientists. She was a scientist personified and her scientific rigor is undeniable. It is therefore not surprising that when IUPAC and UNESCO jointly declared 2011 the International Year of Chemistry (IYC) they saw it as a perfect opportunity to celebrate the contributions of women to science. With the IYC 2011 now in its second half, chemists continue to celebrate chemistry in all of its forms, trying to encourage interest in chemistry among young people and to generate enthusiasm for the creative future of chemistry.



### International Year of CHEMISTRY 2011

Historically, chemistry has been a male-dominated discipline, and seemingly, the contributions from women to this hard science are few and far between. Did women of the past not have the passion or the drive to excel in chemistry? Of course they did, but these women faced prejudices of their times. Not only were they dissuaded from pursuing an education, but those who did were shunned from scholarly clubs to which male scientists belonged and where ideas and experiments were discussed. Women chemists of the past were, therefore, forced to work harder to get the recognition they deserved, but even so, their findings were often overshadowed by those of their male peers; moreover, the ownership of ideas was often disputed. Whilst it may have been difficult for women of the past to succeed in chemistry, there are certainly records of achievement, and a great deal has been published on the subject of women in science, and in particular, women in chemistry. These publications serve

to highlight the contributions that women have made, but they also detail the obstacles that they faced, the sacrifices that they made, and the discrimination that they endured. Recently, Wiley-VCH in cooperation with the European Association for Chemical and Molecular Sciences (EuCheMS) published a book entitled “European Women in Chemistry”. The book tells the stories of the heroines of chemistry in Europe from ancient times to the present. The stories emphasize the lives these women chose to lead and the choices they had to make along their paths to victory. This book serves as a tribute to all the European Women in Chemistry, and its publication ensures that the lives of these extraordinary women of science will not be forgotten.



Is it possible that women chemists of today still suffer from gender inequality? Apart from Marie Curie, only three other women have won the Nobel Prize in Chemistry: her daughter Irène Joliot-Curie in 1935 for the synthesis of new radioactive elements, Dorothy Crowfoot Hodgkin in 1964 for X-ray procedures to study natural products, and Ada E. Yonath in 2009 for research into the ribosome. Notably, none of these women worked in the field of organic chemistry, which even today remains a discipline studied primarily by males. Pick up any issue of EurJOC and you will note that only a very small percentage of papers are authored by female chemists. Indeed, of the manuscripts submitted to EurJOC in 2010, only 16% of them had a woman as the principal author. Why does the presence of women in chemistry remain so scarce? A tough question to answer, especially in view of the fact that many chemical societies now provide programs to at-

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tract, develop, and promote women in the chemical sciences. These programs have undoubtedly helped to level the playing field between men and women in chemistry today, and although the glass ceiling has not yet been shattered, we are closer than ever. Perhaps an important point to bear in mind is that men and women need to continue to learn to work alongside one another to realize that one's strength is the other's weakness, and that together a synergy can exist, if allowed, which may lead to great discoveries that can change our lives.



Marie Curie



Irène Joliot-Curie



Dorothy Crowfoot Hodgkin



Ada E. Yonath

**D**espite the scarcity of women in chemistry, there are of course success stories: A number of women hold key academic and industrial positions, and many have found their way onto editorial boards of journals and into other prestigious positions. The personal triumphs of these prominent women should inspire other women entering chemistry and should serve as proof that determination and dedication really do pay off. The possibility for women to excel in chemistry is only limited by perception; hopefully, talented women seeking a ca-

**The possibility for women to excel is only limited by perception**

reer in chemistry will see beyond the shadows to the opportunities that lay beyond.

**I**n celebration of the IYC 2011 and in honor of the 100th anniversary of Marie Curie being awarded the Nobel Prize in Chemistry, we have dedicated this special issue to Women in (Organic) Chemistry. To make this issue truly special, we have packed it full of unique features. Inside you will find that all papers have at least one female corresponding author, and all of our corresponding authors are highlighted in a preface to this issue in the Women in EurJOC section. Here, we asked all of the women to speak out about their views of women in chemistry. Also, for the first time we have included Author Profiles, in which you can learn a little bit about some of the women who have influenced EurJOC. Four of the five women who are highlighted currently sit on the International Advisory Board of EurJOC, and Janine Cossy, who is the fifth member of the pack, retired from the EurJOC Advisory Board in 2010.

**Special Issue:  
Women in Chemistry**

**I** believe this issue highlights some interesting and cutting-edge organic chemistry. As a society journal of Europe, we showcase some of the best organic chemistry in Europe, but we also have great contributions from women chemists from all areas around the world. The entire spectrum of organic chemistry is covered; the areas of natural products, asymmetric synthesis, cross-coupling, carbohydrates and glycoconjugates, all forms of catalysis, and nucleotides are all touched upon.

**A**nd with that, I invite you to delve into our Special Issue. The work featured here provides but a glimpse of the powers of women in chemistry...

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