

Citation for Chemical Breakthrough Award Program Update

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Summary

- Six years of completed awards (2006 –2011).
- 2012 award program in progress.
- 37 CCB Awards presented to date.
- CCB Awards are plaques only, given to institution from which the research was published
- We provide assistance with and sometimes participation in award ceremonies.
- Several duplicate awards presented, e.g., to the current location of researcher. Duplicate awards are paid for by the institution requesting them or by other donors.

A typical award plaque is shown below. All plaques are also found on the HIST website under HIST Awards, Citation for Chemical Breakthrough Award.



- A number of feature articles on the program have appeared in C&EN.
- Healthy number of award nominations occur for each year but we could accept more nominations.
- Nomination process very simple and quick.
- The nomination process is entirely internet-based.
- The CCB award program has a diverse, high quality, very cooperative awards committees.
- Very simple award selection process.
- Entirely internet-based info dissemination and voting
- Names of award committee members are on HIST's website. For example:

Award Committee Members

2011

Anthony G. M. Barrett, F.R.S. (Imperial College of Science, Technology and Medicine)
 Michael Bowers (University of California, Santa Barbara)
 Carmen Giunta (Le Moyne College)
 Harry Gray (Caltech)
 Dudley Herschbach (Harvard)
 Peter Morris (Science Museum, London)
 Amos Smith (Penn)
 JoAnne Stubbe (Massachusetts Institute of Technology)
 Jeffrey I. Seeman, Committee Secretary (Non-voting) (University of Richmond)

- The CCB award program's website is exceptional, thanks to the excellent collaboration with Vera Mainz.
- The program has received excellent responses in the USA and Europe. To date, no awards have been presented to Asia or South America.
- We have received extraordinary cooperation from the plaque manufacturer, Stellar Kent (<http://www.stellarkent.com/index.php>).
- The plaque-design process is much more difficult than anticipated. It is often hard to obtain the required high quality scans of the original publications. There have been design issues with the recipient organizations.
- In some instances, the plaque contains errors that were in the original document. We have refused to make corrections as requested by the recipients as the plaques must reflect the original document, not subsequent (or modern) modifications. See the title in the following:



Finances

- The plaques cost ca. \$350 each including shipping to the USA. Shipping to Europe is another \$100.
- Funding
 - \$10K from ACS DAC Innovative Grant
 - \$10K from ACS Corporate Associates
 - \$6K from ACS DAC Innovative Grant for Local Section travel
 - Funds from individual donors (which continues to this day)

- HIST currently provides 50% matching to one donor.
- Annual costs ca. \$1700/year.
- Annual income ca. \$1800/year.
- Available as of 8/3/12: \$1956.84 not including pledged gift from Jeffrey I. Seeman of \$1200.
- \$4928.16 available for local section travel.

The website contains high quality images of all the plaques and much supplementary information, including photographs of many awards ceremonies, ceremony agenda, and related materials.

The website is organized by award year. There is a table of all award winners for each year. From that page, one can see the award plaques for each winner as well as the supplementary material associated with that award. See immediately below.

2011 Awardees

NOTE: Text in **COLOR** indicates a "live" link.

| Scientists/Inventors | Breakthrough Publication (If text is in color, this is a live link to the plaque.) | Location of Award (If text is in color, this is a live link to photographs and other materials related to the presentation.) |
|----------------------------|--|---|
| A. Avogadro | "D'UNE MANIÈRE DE DÉTERMINER LES MASSES RELATIVES DES MOLÉCULES ÉLÉMENTAIRES DES CORPS, ET LES PROPORTIONS SELON LESQUELLES ELLES ENTRENT DANS CES COMBINAISONS," <i>Journal de Physique</i> , 1811 , 73, 58 - 76. | Università Degli Studi de Torin |
| S. Cannizzaro | "Lettera del Prof. Stanislao Cannizzaro," <i>Nuovo Cimento</i> , 1858 , 7, 321-366. | Università degli Studi di Genova |
| G. N. Lewis and M. Randall | "Thermodynamics and The Free Energy of Chemical Substances," 1923 . | University of California, Berkeley |
| O. Diels and K. Alder | "Synthesen in der hydroaromatischen Reihe," <i>Justus Liebigs Annalen der Chemie</i> , 1928 , 460, 98 - 122. | Christian-Albrechts-Universität zu Kiel |
| R. Robinson | "LXIII. - A Synthesis of Tropinone," <i>Journal of the Chemical Society</i> , 1917 , 762 - 768. | University of Liverpool |

Citations for Chemical Breakthrough Awards

2011 Awardees O. Diel and K. Alder Christian-Albrechts-Universität zu Kiel

- The three directors of the Otto-Diels-Institut für Organische Chemie at the Christian-Albrechts-Universität zu Kiel (from left to right): Prof. Dr. Rainer Herges, Prof. Dr. Thisbe Lindhorst, Prof. Dr. Ulrich Lüning, June 11, 2012.
- Prof. Dr. Ulrich Lüning, one of the directors of the Otto-Diels-Institut für Organische Chemie at the Christian-Albrechts-Universität zu Kiel, displays the Ph. D. thesis of his father Richard Lüning which had been performed in the Alder laboratories in Köln in the early 1950s. Richard Lüning received his Ph. D. in 1955 with Alder. "So for me personally, the plaque means even more," Ulrich Lüning said. University of Kiel, June 11, 2012.
- Web page from the Otto-Diels-Institut für Organische Chemie, accessed June 12, 2012.

Examples of some of the photographs on the site:



Three directors of the Diels-Alder Institute (L to R): Professor Dr. Rainer Herges, Professor Dr. Thisbe Lindhorst, Professor Dr. Ulrich Lüning, University of Kiel, 2012.



Roald Hoffmann and Frank Westheimer, 2006, Harvard University, 2006.



Leah Solla (HIST member) at Cornell, award for James Sumner, 2011.



Bonnie Charpentier, ACS Director, and Charles Harris, University of California, Berkeley, with G. N. Lewis award, 2007.