

This article was downloaded by:

On: 27 January 2011

Access details: *Access Details: Free Access*

Publisher *Taylor & Francis*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Phosphorus, Sulfur, and Silicon and the Related Elements

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713618290>

ICCST—An Unexpected Success

Wolfgang H. H. Günther^a

^a WHHG Consulting, West Chester, PA, USA

To cite this Article Günther, Wolfgang H. H.(2008) 'ICCST—An Unexpected Success', *Phosphorus, Sulfur, and Silicon and the Related Elements*, 183: 4, 819 — 826

To link to this Article: DOI: 10.1080/10426500801898077

URL: <http://dx.doi.org/10.1080/10426500801898077>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

ICCST—An Unexpected Success

Wolfgang H. H. Günther

WHHG Consulting, West Chester, PA, USA

An ICCST Retrospective, covering meetings 1 through 8 has been published earlier in this journal.¹ For presentation at ICCST-10, personal memories concerning the evolution of the ICCST conferences from their start in 1971 through ICCST-9 were collected into a 50 Minute DVD video.² The following is a synopsis of the video, somewhat expanded to aid comprehension.

My interest in chemistry derived from a college level textbook “Lehrbuch der Anorganischen Chemie” by Karl A. Hoffmann, published in 1919,³ that my father gave me when I was about 10 years old. I read it from cover to cover and knew that I was going to be a chemist when I grew up. My earliest contact with selenium was at the University of Leeds where I spent the 1953–1954 academic year on a fellowship from the German Academic Exchange Service (DAAD) and was given a laboratory, recently vacated by the retiring chairman, professor Frederick Challenger. The lab had been used to study biological methylation of heteroelements by molds and smelled rather badly. Five years later I found myself in the USA, at the Department of Pharmacology, Yale University Medical School, progressing through post-doc, research associate, and assistant professor, working with Henry Mautner on synthesis and study of selenium analogs of biologically active sulfur compounds. In 1967, those studies brought me to be employed at the Xerox Corporation, a company that had pioneered the large-scale use of selenium as the photoconductive element in their copiers.

In 1970, I received a phone call from Professor Yoshiyuki Okamoto of New York University at my Xerox Corporation laboratory. He had heard that I was engaged in editing a book on selenium chemistry.⁴ In the course of the discussion, it also became apparent that we had a common interest in selenium polymers. Okamoto then suggested that

Address correspondence to Wolfgang H. H. Günther, 606 John Anthony Drive, West Chester, PA 19382, USA. E-mail: wolfgang@gunther.com

we might jointly organize a symposium on the matter. As a venue, he suggested New York City where he had good contacts at the New York Academy of Sciences (NYAS). My co-editor Dan Klayman, and I, had already assembled much of the necessary scientific contacts via the book project. In addition, our publisher Wiley Interscience had received a grant for the book from the Selenium and Tellurium Development Association (STDA). We again contacted that organization for a grant to defray some expenses. I cannot remember details, but in exchange for a promise of receiving financial consideration, we acquired a third co-chairman in the person of Eugene M. Elkin of Canadian Copper refineries, who would represent the interests of the STDA.

So, we held a two-day symposium with 23 invited speakers on March 22 and 23, 1971, under the auspices of the New York Academy of Sciences and chaired by Yoshiyuki Okamoto, Wolfgang H. H. Günther, and Eugene M. Elkin.

Our potential star recruit to this meeting would clearly be Professor Arne Fredga from the University of Uppsala, Sweden, who had pioneered studies on selenium containing carboxylic and amino acids about the time I was born in 1931; and who held another prestigious position as chairman of the Nobel Committee for Chemistry.⁵ Of course, in 1970, essentially all communication was by airmail letter, engendering a minimum two-week turnaround time. Fredga's immediate acceptance gained us further credibility to make this a truly international meeting that included his fellow Scandinavians Professor K. A. Jensen, Dr. Lars Henriksen (both University of Copenhagen, Denmark), and Dr. Ulla Swanholm (University of Lund, Sweden). Professor Okamoto's contacts brought us our first Japanese contributor, Professor Noboru Sonoda (Osaka University, Japan). Professor Ralph Zingaro of Texas A&M University, College Station, Texas, USA, promised a talk on selenium-bearing organometallic species. Professor Dieter Hellwinkel (University of Heidelberg, Germany) happened to be on a sabbatical at Yeshiva University, New York, NY, and contributed a talk on hypervalent Se and Te derivatives. In the biological area our star was clearly Dr. Klaus Schwarz, (Veterans Administration Hospital, Long Beach, California, USA) who had first demonstrated that selenium is an essential trace element. Fredga was listed as a co-author since he had supplied organoselenium compounds to be tested against selenium deficiency diseases. From São Paulo, Brazil we managed to attract Professor Nicola Petragnani to educate us about tellurium chemistry. From Lodz, Poland, came Professor Jan Michalski with a large body of work on selenium-containing phosphorus compounds.

The scientific content of the meeting is laid down in full, in Volume 192, of the *Annals of the New York Academy of Sciences*.⁶ I believe that

this was the first book-sized collection of papers dealing with selenium and tellurium chemistry, after Heinrich Rheinbold's magnificent summation of the field, some 15 years earlier, that appeared as a component of the sulfur volume of Houben-Weyl.⁷

The event was so well received that clamors for a repeat arose immediately. But nothing much happened until two years later when I was in Scandinavia attending a liquid crystal conference in Stockholm, Sweden, and I had arranged to visit both Professor Fredga in Uppsala and Professor Jensen in Copenhagen, Denmark.

During my visit, Fredga raised the question of a successor conference. He had heard that Professor Jensen was interested in holding this in Copenhagen but nothing had been undertaken because Jensen had not been well. Fredga felt that organizing such a meeting might be a career builder for a younger person, for instance Salo Gronowitz in Lund. Since I was scheduled to see Jensen, would I please try to dissuade him from trying to hold it in Copenhagen and put in a good word about Lund.

I was a little apprehensive about trying to manipulate Jensen according to Fredga's suggestions. Anyhow, Copenhagen was my next stop; I stayed in a Hotel near the Tivoli amusement park, at the edge of the downtown pedestrian zone. The meeting with Jensen was at his home. We got on pleasantly enough but a little stiffly. He asked where I came from, and where I had studied. Also, how I might have become interested in chemistry. So, I told him about the book that had inspired me and how K. A. Hoffmann had the same first name initials as my host. Well, that broke the ice. It turns out that K. A. Jensen greatly admired K. A. Hoffmann and had owned the same volume since his student days. The 54-year old tome was duly produced, and it matched mine exactly, even to the cracked brown binding, a product of the post-World War I depression.

Quickly, we became a committee of two with the purpose of deciding who should be burdened with holding the next event. Jensen was well aware how much effort an international conference entailed and he reacted favorably when I inquired about the suitability of Lund as a venue and Salo Gronowitz as chairman. The meeting was duly held in Lund, Sweden, in 1975, chaired by Professor Salo Gronowitz with Professor Arne Fredga as honorary president. It went off very well, indeed. Professor Gronowitz, his capable program coordinator Dr. Anna-Britta Hörnfeld, and many of their students arranged for a splendid weeklong conference, while Mrs. Rella Gronowitz put together a fine social program. The schedule was for four days of presentations, interspersed on Wednesday with an excursion to the estate of Dag Hammarskjöld, the 1953–1961 Secretary General of the United Nations. From that trip, I vividly remember animated discussions throughout the bus, a view

of large expanses of peaceful meadows, and one of the finest examples of a Swedish smörgasbord that I have ever seen. The plenary lectures and contributed papers from this second conference were published in *Chemica Scripta*,⁸ thus following the precedent of the NYAS to produce a permanent published record for future reference.

The possible self-perpetuating nature of these meetings first evidenced itself when the late Professor Denise Cagniant spontaneously offered to host the next event in Metz, France. I had the pleasure to visit Mme. Cagniant in 1977, where I was introduced to her husband, also a chemistry professor in her department, and Dr. Gilbert Kirsch. They were all set to do something. We exchanged a few hints on logistics and potential speakers. When I left, I was well satisfied that I had done all I needed to facilitate another good meeting.

The conference proceeded as planned in July of 1979⁶ with Professor Mme. Denise Cagniant as chair, the late Professor Sir Derek H. R. Barton as Honorary President, and Dr. Gilbert Kirsch as General Secretary. We were honored to have Sir Derek serve as Honorary President, but he was also an active participant who made many creative suggestions to plenary lecturers and poster presenters alike. I was most flattered when Sir Derek told me that he liked my book.⁴ He liked it so much, in fact, that he had bought two copies so he would not have to carry it between his lab and home. A sad memory: during the conference, Barton received notice, and then made an announcement to the effect that his fellow Nobel laureate Robert Burns Woodward had passed away. The mid-conference excursion led us to the caves and gardens of Moët & Chandon, the famous French champagne producers for a lavish meal of *coq au vin* and many varieties of champagne. Mme. Cagniant further treated the organizing committee to a "simple" post-conference lunch that turned out to be a four-hour affair. The next day was July 14, Bastille Day, and occasion for a grand parade in the old garrison city of Metz. Dr. Kirsch had managed to get us some tickets, and a whole group of foreigners set off in high spirits to view the parade. Then we found out that we had been assigned space in the center of a reviewing stand, in amongst very formally dressed, uniformed, and decorated ladies and gentlemen. Our casual tourist attire certainly stood out unfavorably. It was quite embarrassing, but a great location for the photography that was resurrected for the DVD presentation. The proceedings were self-published and may be hard to find, but do carry an ISBN reference.⁹

For the next two events, the scepter seems to have been passed from chair to chair without the intervention of a "kingmaker," giving an early indication of the unexpected success that is now evident from the history of the series. The late Professor William R. McWhinnie and co-chair

Professor Frank J. Berry hosted the 4th meeting in Birmingham, UK (1983), and Professors Ralph Zingaro and Kurt Irgolic the 5th in Oak Ridge, Tennessee, USA (1987). Both meetings reinforced an established and well-working program style by including a mid-meeting excursion. Professor McWhinnie sent us to Ironbridge, a memorial to the birth of the industrial revolution in Britain. Professor Zingaro treated us to a “bluegrass” country excursion, a reminder of a time when the top-secret atomic bomb project was hidden from enemy spies in the backwoods of Tennessee. The proceedings from Birmingham were self-published,¹⁰ and the Oak Ridge meeting produced the first dedicated selenium/tellurium volume of *Phosphorus, Sulfur, and Silicon*.¹¹

There the progression might have come to a halt since no organizational meeting had been held by the time the delegates departed. It was fortunate that I met Professor Noburo Sonoda in the airport departure lounge. He asked if any provisions had been made for a future meeting and seemed disappointed when I responded in the negative. When asked whether he might be interested in being the next organizer, his answer was a quick and emphatic “YES.” The 6th Conference in Osaka, Japan (1991) was a great success, academically as well as socially. To this day, it was the only time my wife and I have been able to visit Japan and we carry very fond memories of the people, the culture, and the ancient institutions of this country.

Our personal side-trip to Hiroshima showed us the horrors of atomic warfare but also taught us about the resiliency of life and human civilization. The atomic bomb exploded 400 meters above the Prefectural Building. The glass dome shattered but the metal frame and the building’s brick walls are standing to this day. The nearby river briefly flashed into steam, bouncing a bridge several feet into the air. But, the bridge settled back down and, after minor repairs, served for another 40 years. Hiroshima’s macadam streets caught fire but electric lines survived and streetcars were running a few days after the event. Today, Hiroshima is a vibrant modern city. It is also gratifying to know that the much-feared inherited genetic defects, as a result of this event, did not come to pass.

Professor Sonoda edited the proceedings into a now familiar format in *Phosphorus, Sulfur, and Silicon*.¹² He first coined the ICCST acronym and initiated a form of organizational continuity. His International Advisory Board held a meeting to decide on the continuation of the series, conferring the task to chair the next event on Professor Peter Laur of the RWTH Aachen, Germany. Laur first engaged the internet for ICCST-7; the congress was held at Vaalsbroek Castle, Netherlands, July 21–25, 1997, with excursions around the picturesque area where Germany, Holland and Belgium meet. The proceedings were again made into a volume of *Phosphorus, Sulfur, and Silicon*.^[13] To me,

among so many fine papers, a clear scientific highlight of this conference was the demonstration by Thressa C. Stadtman and Heidi Walker¹⁴ of how selenium enters biology via selenophosphate synthetase and the accompanying unequivocal chemical synthesis and characterization by Richard S. Glass of monoselenophosphate as the effective carrier.¹⁵

The Grande Hotel in Águas de São Pedro, near São Paulo, Brazil, was the venue for ICCST-8 (2000), under Professor J. V. Comasseto with Professor N. Petragnani as Honorary President. São Paulo was especially meaningful to me, as the location where a new university was founded shortly after I was born, and where Heinrich Rheinboldt taught and researched more than 20 years before he contributed the chapter to the Houben-Weyl volume⁷ that gave me all my early education in selenium and tellurium chemistry.

The personal records of these meetings continued to improve as more advanced technology became available. Unfortunately, I was not able to retrieve actual photos of the New York conference in 1971, scientists simply did not behave like tourists, going about with prominent cameras on straps around their necks. Black and white negatives and some color slides were retrievable from the Lund, Metz, and Birmingham events. I used mostly color negative film at Oak Ridge, Osaka, and Aachen, but cheap cameras that produced many flawed images. The turn of the millennium event at São Paulo saw a giant advance into digital video, albeit a retrograde step for the still shots that now came at only 640×480 pixel video resolution. We also learned that conference room video tends to come out badly when done by an amateur from among the audience. So, the cinematographically most successful segments of my DVD are joyous party and excursion scenes with original sound capture.

Once again, *Phosphorus, Sulfur, and Silicon* served to lay down a permanent record of the conference proceedings.¹⁶

ICCST-9 was consequently brought to fruition in 2004 in another (to many of us) very exotic location, the Indian Institute of Technology, Mumbai, India, under the chairmanship of Profs. H. B. Singh and V. K. Jain, with Professor B. L. Khandelwal as Honorary President. We met in a country with an ancient culture that saw independence from colonial domination only in 1945 and at a renowned institution that was founded only in 1958, well within the lifetimes of many participants at these meetings and the year in which both my wife and I received our doctorates. Once again, like in Japan and Brazil, we extended our stay to sample some of India's many tourist offerings, and my video concludes with a segment entitled, "Images of India."

The use of the internet to address an unlimited, worldwide audience had, by then become standard for scientific conferences, and the IIT site served well to inform participants. Unfortunately, the fine efforts of web design and on-line publication tend to be temporary. Thus the original URL <http://www.chem.iitb.ac.in/~iccst9> is no longer accessible. However, for research purposes there is an internet archive (also called the Wayback Machine) at <http://www.archive.org/index.php> Simply entering the original URL will retrieve much of the original data (or use <http://tinyurl.com/2ogq55> as a shortened version).

The latest in this unexpected series of events and the subject of the current volume was ICCST-10 in Lodz, Poland, under the chairmanship of Professor Marian Mikolajczyk and the secretariat of Professor Piotr Kielbasinski. This continued a scientific tradition of 36 years that has resulted in ten books and has built lasting collaborations and friendships between many of the participants. In time for ICCST-8 an on-line Selenium Tellurium Interest Group was initiated and is continuing to this day, currently accessible at <http://tech.groups.yahoo.com/group/SeTeIG/>.

Former chairs automatically continue to serve as members of the International Advisory Board, and they contribute wisdom in the choice of venues and scientific content. Starting with the Mumbai meeting, the Members of the International Advisory Board (MIAB) were also organized as a non-public e-mail list to facilitate easier communication in a format that delivers an automatic archival record of all e-mail correspondence.

My gratitude goes to the chairs, co-chairs, and numerous helpers who enabled these many meetings. I would especially like to thank Professor Laur, who has used his many personal and scientific contacts for assuring continuity of ICCST far beyond the current event.

REFERENCES AND NOTES

- [1] Wolfgang H. H. Günther, ICCST Retrospective, *Phosphorus, Sulfur, and Silicon*, **171**, 1–12 (2001).
- [2] To obtain a copy of the presentation on DVD, please write to the author at Wolfgang@Gunther.com, specify PAL or NTSC version, provide your full name, affiliation, and postal mailing address and be prepared to be asked for a modest reimbursement of costs.
- [3] Lehrbuch der Anorganischen Chemie and Karl A. Hoffmann, *2te Auflage* (Friedr. Vieweg & Sohn, Braunschweig, 1919).
- [4] Daniel L. Klayman and Wolfgang H. H. Günther, Eds., *Organic Selenium Compounds: Their Chemistry and Biology* (Wiley Interscience, New York, 1973) ISBN 0-471-49032-6.
- [5] See for example, The Nobel Prize in Chemistry 1969 to Derek H. R. Barton and Odd Hassel. Presentation Speech by Professor A. Fredga, member of the

- Nobel Committee for Chemistry of the Royal Swedish Academy of Sciences <http://www.nobel.se/chemistry/laureates/1969/press.html>; last accessed February 27, 2008.
- [6] Yoshiyuki Okamoto and Wolfgang H. H. Günther, Eds., *Organic Selenium and Tellurium Chemistry*. Annals of the New York Academy of Sciences, New York **192**, 1972), pp. 1–126
- [7] Heinrich Rheinboldt. *Selenium and Tellurium Chemistry*. In *Houben-Weyl, Methoden der Organischen Chemie*, 4th ed., vol. IX (Thieme Verlag, Stuttgart, Germany, 1955).
- [8] Salo Gronowitz, Ed. The Second International Symposium on Organic Selenium and Tellurium Chemistry, including Biochemistry, held in Lund, Sweden 18–22 August, 1975., *Chemica Scripta*, **8A**, (1975), 120 pp.
- [9] D. Cagniant and G. Kirsch, Eds., Proceedings of the Third International Symposium on Organic Selenium and Tellurium Compounds, Metz 9–12 July 1979, (Université de Metz, Metz, France), 413 pp., ISBN 2-903599-00-9, 1981.
- [10] Frank J. Berry and William R. McWhinnie, Eds., Proceedings of the Fourth International Conference on the Organic Chemistry of Selenium and Tellurium, The University of Aston in Birmingham, England, 25–29 July, 1983, (1984), 678 pp.
- [11] R. A. Zingaro and G. W. Kabalka, Eds., Proceedings of the Fifth International Symposium on the Chemistry of Selenium and Tellurium, Oak Ridge, Tennessee, USA, 24–28 August 1987; *Phosphorus, Sulfur, and Silicon* **38**, (1–2), pp. 1–214; *Phosphorus, Sulfur, and Silicon* **38**, (3–4), pp. 217–417 (1988). ISSN 0308-664x, ISBN 0-677-22080-4.
- [12] Noburo Sonoda, Ed., Proceedings of the Sixth International Conference on the Chemistry of Selenium and Tellurium, Osaka, Japan, 9–13 July 1991. *Phosphorus, Sulfur, and Silicon* **67**, (1992) 474 pp. ISSN 1042-6507.
- [13] Peter H. Laur, Ed., Proceedings of the Seventh International Conference on the Chemistry of Selenium and Tellurium (ICCST-7), Vaalsbroek Castle (Netherlands), near Aachen, Germany, 20–25 July 1997; *Phosphorus, Sulfur and Silicon* **136**, **137**, **138** (1998). 666 pp. ISSN 1042-6507.
- [14] *Ibid*, p. 367.
- [15] *Ibid*, p. 159.
- [16] João V. Comasseto, Ed., Proceedings of the Eighth International Conference on the Chemistry of Selenium and Tellurium (ICCST-8), Grande Hotel São Pedro, Águas de São Pedro, Brazil, Aug 6–11, 2000. *Phosphorus, Sulfur, and Silicon* **171**, **172**, (2001). 513 pp. ISSN 1042-6507.
- [17] H. B. Singh and V. K. Jain, Eds., Proceedings of the Ninth International Conference on the Chemistry of Selenium and Tellurium (ICCST-9), Indian Institute of Technology (Bombay, Mumbai, India, February 23–29, 2004; *Phosphorus, Sulfur, and Silicon* **180**, (3–4), 461 pp. (2005). ISSN 1042-6507.