

## André Guinier (1911–2000)

An obituary of **André Guinier**, who died on 3 July 2000, has been published in the January issue of *Acta Crystallographica Section A* [Lambert (2001). *Acta Cryst. A* **57**, 1–3].

## Harry Brumberger (1926–2000)

**Harry Brumberger**, Professor of Chemistry at Syracuse University, and a pioneer in the field of small-angle scattering, died on Friday 10 November 2000, in a Syracuse hospital, where he had been admitted for implantation of a pacemaker. He was 74 years old. He left behind his wife, Vilma, his children, Eva and Jesse, and one grandchild.

Harry had retired five years previously from the Chemistry Department, but had remained active in both teaching and research. Since his retirement, he had taught several courses in chemistry at Syracuse University and at the Environmental Science and Forestry College of SUNY, and was doing research on small-angle X-ray scattering from catalysts. He had recently been awarded a grant for this research by the Petroleum Research Foundation of the American Chemical Society.

Harry came to the United States from Vienna, Austria as a young teenager, with his parents, fleeing anti-Semitic persecution. Of his experiences in Austria he spoke little, except to those very close to him; painful as they must have been, he always held pre-1930's Austria in great affection. He attended high school, college and graduate school in New York City, and served in the US army (ski troops). He earned bachelor's, master's and doctoral degrees at the Brooklyn Polytechnic Institute, as well as a master's degree from the Swiss Federal Institute of Technology (ETH) in Zurich. Harry's PhD in Chemistry (1955) was directed by Rudolph Marcus, later a Nobel Prize winner in Chemistry, Harry being the first student to complete his doctorate under Marcus' direction. After his PhD, Harry left New York City for Cornell University in Ithaca, New York, where he worked as a post-doctoral associate with another Nobel

Prize winner, Peter Debye. From Ithaca it was a short jump to Syracuse, where he joined the Chemistry Department in 1957 as an assistant professor. He became associate professor in 1962 and professor in 1969. During his years at Syracuse University, he served as director of the Graduate Biophysics Program and of the Solid State Science and Technology Program. He was a visiting scholar at the University of Graz (Austria), the Weizmann Institute of Science (Israel), the University of Cambridge (England), and the Swiss Federal Institute of Technology (ETH) (Zurich, Switzerland).

Harry's research involved small-angle X-ray scattering from amorphous (non-crystalline) systems. Given the low-intensity sources available, the necessity for precise alignment and angular measurement, and the relatively featureless scattering curves obtained, this work required meticulous measurements, with great attention to detail, and care in interpretation of experimental results. Harry became an expert in the field, respected internationally. He organized the first international conference on small-angle scattering, in Syracuse, and, in 1993, organized a NATO Advanced Institute on Small-Angle Scattering in Como, Italy. The Syracuse conference was the first in an ongoing series of triennial conferences, for which he continued to serve as a member of the advisory board. An often-invited speaker at international conferences, Harry edited a volume of papers on small-angle scattering and its applications, and published in the field at a constant rate throughout his years at Syracuse.

Harry Brumberger's publications are characterized by concision and clarity, reflecting both the carefully planned and executed experiments he reported, and the attention he gave in his writing to detail and to style. His elegant writing style came partly from his extensive reading in many areas, both scientific and extra-scientific. He always insisted on clarity and brevity, and spared no effort in making everything with his name on it as close to perfect as possible. This will long be remembered by collaborators on his papers, some of which never saw the light of publication because they fell short of his high standards.

The same desire for clarity informed his teaching. He worked very hard to present the subject matter of his courses as clearly as possible, and was always ready to take whatever time was required to explain a difficult point to a student (or to a colleague). His adeptness at puncturing pomposity and signaling unclear thinking in others probably did not endear him to everyone. However, his teaching and advising were appreciated by the best students, and his advice was sought by colleagues all over the world, and not only on matters related to his specialty. His counsel was also much appreciated on extra-scientific matters. Receiving correspondence from Harry was a great pleasure, due equally to the elegance of the writing style and the intelligence of the content.

It may be said that Harry Brumberger was a gentleman, a scientist, and a gentleman-scientist in the best sense of the word. While always thinking about his current scientific research, he refused to be limited to it. A truly educated and erudite man, he read widely in many areas, often impressing others by his knowledge. He had a particular interest in history, ancient and modern. In the months before his death, he was attending a course in Latin, with a view to studying some of the alchemical texts in the original. A few weeks before Harry's death, an article about the Cornell synchrotron and the research being performed on it appeared in the local paper. The reporter, having met a scientist from Syracuse at the facility, interviewed Harry at some length. Harry told him about the joys of scientific research, and how they made all the hardships worthwhile (he and his helpers had to be present at their experiments night and day when 'beam time' was available). His devotion to his research is one of the things we will long remember. We will also miss his elegance, wit, erudition, and the other qualities which made him such a great colleague and friend.

**Jerry Goodison  
Salvino Ciccariello  
Gernot Kostorz**