

Sharon G. Lias, 1935–2004



I first met Sharon in 1960 at the National Bureau of Standards (NBS), now named the National Institute of Standards and Technology (NIST). At the time Sharon, who had received the BS degree in chemistry from the College of William and Mary, was assigned to analyze atmospheric gas samples for pollutants; a picture of her appeared in the *Washington Post* standing on the roof of a tall building in Washington with a sampling device. In addition, Sharon was responsible for running gas samples on an old Consolidated Mass Spectrometer. I will always remember how all comers (including me) were welcomed with a cheerful smile and would receive their analysis results within a day. Being a woman she was also expected to handle telephone calls and take on typing assignments whenever the secretary of her boss was not around.

As a result of one of the many reorganizations at NBS in the early 1960s, Sharon decided to join my research team, which at the time was concerned with various aspects of radiation chemistry and far ultraviolet photochemistry. In many of these studies deuterium labeling was used in order to provide more detailed information about the role of ions in gases exposed to high energy radiation. It is in this area that the exceptional tal-

ents of Sharon came into play. At the time she was the only person who was, through computation and the use of standards, able to unravel complex mixtures of homologues. This led us to distinguish products resulting from chemical reactions of free radicals from those resulting from ion interactions, deuterium and hydrogen atoms being at least partially scrambled in ions but not in free radicals. Ultimately, this work led to a detailed account of the relative role of ionization and excitation (mainly to higher Rydberg states) in hydrocarbon gases exposed to high energy electrons [1].

It had been apparent to me for some time that Sharon had the makings of a scientist in her own right and though she was hesitant at first, I am happy to say I convinced her to continue her education. For the next few years she worked at NBS and took night courses at local universities, finally receiving her PhD in physical chemistry in 1972. Shortly thereafter, she worked for 1 year with Frank Field at the Rockefeller Institute in New York. At the same time she was the principal author of a monograph published by the American Chemical Society [2].

After her return from New York, Sharon took over the Ion Cyclotron Resonance (ICR) spectrometer that John Eyler constructed during a fellowship tenure at NIST (photo from 1975). Around the same time she became involved with data collection and evaluation activities. The latter activity, which was undertaken at the urging of Henry Rosenstock, eventually led to two important publications [3,4], one of which became the most-cited chemistry publication in 1986. In passing, I should mention that a traumatic event in her life occurred during a NATO Advanced Study meeting in Portugal; she was present when Henry passed away and had to accompany his remains on the flight back to Washington.

In 1986 Sharon became Program Manager with the Standard Reference Program at NIST. During her tenure Sharon resuscitated an EPA mass spectral database, which at the time was lying dormant in a filing cabinet. After generating a printout it became clear to her, as well as to Fred McLafferty, that many of the spectra were erroneous. This finding led her to have the entire database carefully reexamined. At that time Steve Stein developed the necessary software to facilitate the task. Sharon's plan was to subject the spectra, in so far as possible, to the same rigorous examination as the other physical data that were being handled by the Office of Standard Reference Date (OSRD). The

entire project was then given over into the capable hands of Steve Stein for further expansion. Around the same time (1988) Sharon was nominated as Chief of the Chemical Kinetics and Thermodynamics Division. During her tenure (1988–1995) she took care of the rather exacting managerial tasks in a very professional manner. More important was the fact that, now in control of the necessary resources, she was able to vigorously expand the kinetics and thermodynamics data evaluation activities at NIST.

During all stages of her career Sharon was widely appreciated for her positive approach towards any task she had to handle. Though she is respected for her intelligence and rightly so, she is no less remembered for her warmth, decency and compassion. I believe that any person who had the pleasure of meeting her in the course of her professional and personal life felt uplifted by the experience. She was the most unbiased and caring person I ever met.

In the last years of her life Sharon was battling cancer. She faced this with the same cheer and lack of self-indulgence which were characteristic of her throughout her life. She found great joy in becoming a grandmother during this time and continued to travel despite undergoing treatment. In addition, she began what was in effect a second career, researching the fascinating story of the field artillery division, her father, the late General William C. Garrison, led through Europe during the Second World War. The result was a book that combined history, excerpts from letters

written by the men of the division at the time, and interviews that she conducted with surviving members of her father's command [5]. Her keen mind once again combined with her humanity to produce a work that is both scholarly and readable. Though she is missed, her friends and family remember her without regrets, because she had none.

References

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