

# The SAS Spectrum Newsletter

The Newsletter of the Society for Applied Spectroscopy



## January, 2005

*Thanks to the retiring editor*



**Dr. Marvin Margoshes**

Dr. Marvin Margoshes was born in New York City in 1925. He attended the public schools there, and graduated from Brooklyn Technical High School in 1942. His first job in science was at the NYU Medical School during the few months between his high school graduation and induction into the Army. After serving with the 96th Infantry Division as an infantryman on Leyte and Okinawa, he resumed his education. He completed his studies for a B.S. in Chemistry at the Polytechnic Institute of Brooklyn in 1950, and was awarded a Ph.D. in Physical Chemistry at Iowa State College in 1953. His thesis research, supervised by Velmer Fassel, was on the effect of benzene ring substituents on the out-of-plane vibrations of the hydrogen atoms, with additional studies on empirical relations between the lengths and stretching frequencies of C=O groups and hydrogen-bonds, and on quantitative IR analysis of aryl silanes. From 1954 to 1957, Margoshes was a Harvard Fellow in the Biophysics Research Laboratory at the Peter Bent Brigham Hospital in Boston. He began a transition from atomic to molecular spectra by completing the

development of a multi-channel flame spectrometer. Research with that instrument led to publications on an automated method of background correction, and on interferences in flame methods for the determination of alkali and alkaline earth elements. The spectrometer was also used to analyze bananas as a low-sodium food. He also developed, with Ralph Theirs, a simple photometer to measure enzyme activities in blood; it was sold for many years to clinical chemistry laboratories as the Coenzometer. His last project there was the isolation from horse kidneys of metallothionein, an unusual cadmium/zinc-containing protein.

Margoshes joined Bourdon Scribner's group at the National Bureau of Standards in 1957, and his first project was to develop the dc plasma jet source. He published some of the first papers on laser-probe excitation and on an early model of the ICP source. In the mid-1960's he used time-sharing computers to process analytical and research data in spectrochemical analysis. That experience led him to consider how the full UV/visible spectrum could be recorded in digital form. Margoshes left NBS to develop this idea with Tomas Hirschfeld at Block Engineering. After leaving Block, Margoshes joined Technicon Instruments to again work on clinical chemistry apparatus finally retiring there in 1990.

Dr. Margoshes has been a member of the Society for Applied Spectroscopy since its inception, and he has held posts on the National and Local Section levels. He was President of SAS, Treasurer, Newsletter Editor and the SAS liaison to the Chemical Heritage Foundation. He was on the editorial staff of Applied Spectroscopy. He was Secretary for the First National Meeting in 1962, and served on several SAS committees. He was chair of the Baltimore-Washington Local Section and Secretary of the New York Local Section. He was awarded the SAS Gold Medal in 1976 and the SAS Distinguished Service award in 1998. He was Editor of Spectrochimica Acta B and served on the Editorial Advisory Board and the Instrumentation Advisory Board of Analytical Chemistry.

*We appreciate six years of great service!*

*Here's the new editor*



**David J. Butcher**  
Professor of Chemistry and  
Associate Dean of the  
College of Arts & Sciences  
Western Carolina University

David J. Butcher is currently Professor of Chemistry and Associate Dean of the College of Arts and Sciences at Western Carolina University (WCU) in Cullowhee, NC. He is married to Dr. Karen Butcher and has two children, Emily 13 and Neil 11, with whom he enjoys leisure time. He received his bachelor's degree in 1982 from the University of Vermont. After three years of employment at Pfizer and Bowdoin College, he received his Ph.D. from the University of Connecticut in 1990. His graduate work, conducted under the direction of Robert G. Michel, involved the development of instrumentation for laser excited atomic fluorescence and ionization spectroscopies. He joined the faculty at WCU in 1990 as an Assistant Professor of Chemistry, was promoted to Associate Professor in 1997, was promoted to Professor in 2001, and became Department Head in 2002.

Prof. Butcher became Associate Dean in April, 2004. Prof. Butcher has more than 40 publications in a variety of areas of analytical chemistry, including graphite furnace atomic absorption spectrometry, diode laser atomic absorption spectrometry, and ion trap mass spectrometry. Along with Prof. Joseph Sneddon, he is co-author of the volume "A Practical Guide to Graphite Furnace Atomic Absorption Analysis." His current research interests include environmental analytical chemistry; currently he is involved in a phytoremediation project to remove lead and arsenic from the soil at a housing development in Western North Carolina. He has also been involved in a number of novel teaching innovations in general and analytical chemistry. He serves as Associate Editor for Book Reviews of the Microchemical Journal, and Associate Editor for Education for Spectroscopy Letters. He received the 1998 WCU University Scholar Award as the outstanding researcher. He serves on the Editorial Boards of Microchemical Journal, Spectroscopy Letters and Applied Spectroscopy Reviews. He served as Chair of the American Microchemical Society Undergraduate Award Committee and is currently Chair of the A.A. Benedetti-Pichler Award Committee. In 2001, he served as Program Chair for 28th FACSS meeting held in Detroit, MI.



**This is your newsletter. I welcome your comments and suggestions. Contact me at [newsletter@s-a-s.org](mailto:newsletter@s-a-s.org)**  
Thanks, *Dave*