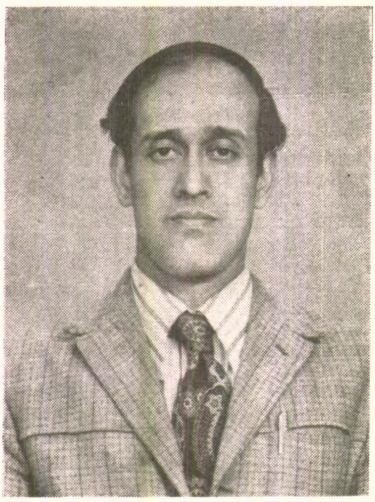
OBITUARY



Prof. V. S. VENKATASUBRAMANIAN

(1930 - 1984)

At a time when even the international geological community was largely unaware of the potential of geochronology and isotope geology for the resolution of major problems in earth sciences, a young and brilliant physicist was quietly working in the Physics Department, Indian Institute of Science, Bangalore, to develop sensitive techniques for absolute age determination of rocks and minerals. Geochronological research has now come to be associated with large financial support and elaborate infrastructure. But this young scientist, Prof. V. S. Venkatasubramanian, relied more on his innovative genius than anything else, to develop simple instruments for the esoteric science of geochronology. His publication in 1953 on the Rb/Sr age of phlogopites from Kerala, will rank as one of the earliest in the world literature on the geological application of this technique. He subsequently developed techniques for U/Pb and K/Ar dating of a variety of rocks and minerals in south India. The greatness of all these contributions must be gauged in the light of the fact that they were made without any benefit of experience in a foreign laboratory and they are yet to be matched by anyone in this country. When Prof. H. E. Duckworth, a renowned name in mass spectrometry, visited the Physics Department in early 1960, he was so much impressed with Prof. Venkatasubramanian's achievements with very modest resources that he invited Prof. Venkatasubramanian to spend two years in his laboratory in McMaster University. After his return, he built up mass spectrometers for a variety of research in both physics and geology and published virtually all the earliest geochronological data for the south Indian rocks with the help of a host of graduate students.

Dr. Venkatasubramanian had an incredible insight into any given problem and scientific ability to reach enduring results with only the simplest apparatus. His age results for rocks of the classic terrain of Karnataka have only been confirmed and not revised by later workers with access to sophisticated laboratories abroad.

He was one of the few in the world to master the difficult technique of spark source mass spectrometry for trace element analysis in geochemical research. He was also one of the earliest to recognize alpha ray spectrometry of uranium-series elements as a powerful tool in the study of low temperature aqueous geochemical processes.

He pursued science just for its sheer pleasure and excitement. It was a delight to watch him twiddle the knobs of his mass spectrometer humming a tune and immensely pleased with himself. He may have recorded hundreds of mass spectral peaks. But every time the recorder pen rose from the baseline to trace a peak, his face would be lit up with a child-like excitement. His lectures, be in physics or geology, were characterized by deep erudition, transparent clarity and remarkable precision. The breadth of his scientific interest is truly amazing ranging from sulphur isotopes in ore minerals to plasma diagnostics and infra-red detectors. He had just completed writing a book on materials science. I hope his dream to present that book to the student community is fulfilled soon enough.

The science and practice of geochronology are still in their infancy in this country. The man, who single handed, did the most to the national efforts in this field is unfortunately no longer with us to give the thrust it needs to play its role in the national context.

Prof. V. S. Venkatasubramanian was born on 30th June 1930 near Palghat. After his early education in Victoria College in Palghat, he obtained the B.Sc. (Honours) degree in Physics in 1950 from St. Joseph's College, Tiruchirapalli and joined the Physics Department, Indian Institute of Science, to pursue a brilliant scientific career truncated only by his recent and untimely death on 22nd July 1984. Though he was suffering from some physical handicaps in the last few years, he was active to the very end. The Indian scientific community has lost one of its most illustrious members, and I, my mentor.

Physical Research Laboratory
Ahmedabad

K. GOPALAN