



C.V. RAMAN'S STUDENT SUKUMAR CHANDRA SIRKAR: LIFE AND SCIENCE
by Dr. Rajinder Singh; published by Shaker Verlag, Aachen, 2019. Paperback 204 pages.
Price 21,90€ / 27.40 SFr

Dr. Rajinder Singh has made a very valuable contribution in writing a book on the Life and Science of Dr S C Sirkar who did his doctoral work under the supervision of the Nobel Prize winning physicist Dr C V Raman at Indian Association for the Cultivation of Sciences (usually abbreviated as IACS), Kolkata. Raman effect was discovered in 1928 and at that time, there were 28 scholars working with C V Raman and only 2 of them (S C Sirkar and K S Krishnan) were working on Light Scattering. Although K S Krishnan did not share the Nobel Prize with Raman (many thought he should have), but Krishnan did get good recognition of his work. However, as mentioned by Dr. Rajinder Singh, although Sirkar had contributed significantly to the discovery of Raman effect, he remained the unsung student

of Raman. In 1930 (less than 2 years after the discovery of the Raman Effect), Sirkar had analyzed the intensity dependence of Raman lines which, according to Professor Kankan Bhattacharyya, laid the foundation of Resonance Raman Spectroscopy. This is indeed a remarkable contribution of Dr Sirkar which has been brought out by Dr. Rajinder Singh. Indeed Sirkar was awarded the DSc degree of Calcutta University for his work in determining the relative intensities of Raman lines.

Dr Sirkar had made extensive contributions on Raman effect, X-rays, and crystal structure, Kerr effect and also on cosmic rays. Dr. Singh has discussed details of research contributions of Dr Sirkar. Because of his very important research contributions, in 1942 (when he was 44 years old) Sirkar was elected Fellow of National Institute of Sciences of India (now known as Indian National Science Academy); however, at that time, he did not have a permanent job. In 1945 (when he was 47 years old), he was appointed a lecturer in the Science College, Calcutta University and after three years he moved back to IACS as a Professor to head the Department of Optics. He did eventually (just before his retirement) become (Acting) Director of IACS during 1958-59.

Chapter 8 gives the long list of Dr. Sirkar's publications including the titles of his 3 books. What is little strange is the fact that except for the very first paper of Sirkar (which was published in Nature in 1928) no other paper had C V Raman as a co-author and Raman left Calcutta for Bangalore only in 1933.

Every scientist (including teachers and students) must have a perspective of history which, unfortunately, is not included in our syllabi. In my opinion, Dr. Rajinder Singh has made an important contribution in tracing the history (and also important contributions) made by Dr Sukumar Chandra Sirkar. □

Ajoy Ghatak
Meghnad Saha Professor
The National Academy of Sciences, India
(Formerly at IIT Delhi)
e-mail : ajoykghatak@gmail.com