A multifaceted personality

An obituary of Y. T. Thathachari

The passing away of Y. T. Thathachari on 23 November last year is the saddest event to all who had the good fortune of knowing him YT, as he was endearingly referred and addressed, took the B. Sc. (Hons.) degree in Physics of the Madras University in 1950. After working in St. Josephs College, Thiruchirapalli for a year he joined the Physics Department, Indian Institute of Science, Bangalore in 1951 as a research scholar and worked under the guidance of the illustrious scientist G. N. Ramachandran.

He published a very interesting paper with his mentor on an ingenious experimental device of an X-ray microcope employing Laue reflections In 1955 he moved over to the Department of Physics, Madras University which was headed by Prof. Ramachandran. Here he was associated with the developments connected with defining the structure of collagen at the molecular level, the three-dimensional structure of which was announced earlier in 1954 by Ramachandran and Kartha. YT co-authored two detailed papers wherein evidences for the two-bonded structure of collagen were provided. In particular YT was instrumental in the development of graphical methods for analysing stereochemistry of biopolymers. He was in US for two years from 1960 – first in MIT, Cambridge and then in Stanford University – during which period he was working on the structure of keratin. Towards the end of 1962 he and his devoted wife Madhuri had to abruptly return to India as he was diagnosed with metastasis Ewings sarcoma, with little assurance from the Stanford medical community that he would survive. But the cure and remission came in a miraculous fashion. For a short period YT was working in the Department of Botany, Madras University where his work was concerned with studies using electron microscope. He joined Stanford University in 1966 where his researches were on the determination of the physical structure of melanins – natural as well as synthetic. As unique and direct structure solution based on X-ray data alone from such a complex and an amorphous material was not possible, auxiliary information available from ESR, electron microscope and chemical analyses were used in proposing some structural features. He published two papers summarizing his observations. During 1974–76 when he was in the Indian Institute of Technology, Madras YT carried out some systematic work on finding the conditions necessary for the appearance of Kirlian images and published a paper. From 1976 onwards he was working in the Department of Materials Science and Engineering, Stanford University. He, with W. A. Tiller, published during 1982–83 four important papers on the restriction in relative orientation of adjacent tetrahedra in silicate structures. Unfortunately YT did not publish in detail much of what he accomplished. This could in part be attributed to his interest in deriving satisfaction for himself out of the scientific endeavours he undertook and also due to the indifferent health he was subjected to.

YT was a multi-faceted personality – a scholar extraordinary in the true sense of the term. His knowledge of Sanskrit and Sanskrit literature was phenomenal. If you asked him the meaning and etymology of a word, very often he could pull out of memory the relevant portion from *Amarakosam*, the monumental reference works of Sanskrit language. He was thoroughly familiar with the works of Kalidasa, Birthruhari, Bhasa, Bhavabhuti and others. YT immensely enjoyed and revered the works of Vedanta Desikar, the great ascetic scholar of Vaishnavism. During the last few years of his stay from 1976 to 1993 at Stanford University YT taught advanced Sanskrit to a few earnest American students.

Because of the fragile nature of his health YT had to be looked after with extreme care and in this respect he was most fortunate to have Madhuri as his life mate. She was totally dedicated to her husband in the truest Indian tradition. Both YT and Madhuri were drawn to Sri Sathya Sai Baba and had an abiding faith in Him which remained with YT till the end. However, this faith and his scientific outlook were two facets of his personality and he never mixed them.

A sharp intellect, humane, kind man that YT was he gave his time and attention generously to his friends. It is only very rarely that one comes into contact with one like YT in whom the two cultures – science and art – intermingled so harmoniously.

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