

Sarjit Singh Sandhu (1930–2014)

Sarjit Singh Sandhu, a renowned chemist from India died on 19 June 2014 in USA, where he settled down after his retirement from Guru Nanak Dev University (GNDU), Amritsar in 1990.

Sandhu was born on 7 February 1930 into an agricultural family in a village, Chuk Number 33, District Lyallpur (now in Pakistan). His early education was at D.B. High School, Satiana, Lyallpur (now Faisalabad). He was the first person in his family to have completed high school with first division. His father was keen that Sandhu join the police or civil service because his educational success would help him secure a good life. However, he sought education against his father's wishes and with the family unable to support him financially. He enrolled himself in Lyallpur Khalsa College, Jullundur (newly set up as a camp college in Doaba Khalsa High School campus) after migration to Indian Punjab. He walked 7 km each way on the railway tracks (as he could not afford to travel by train) every day for 3 years to get his B Sc degree in first division. He also topped his class.

Driven by an inner vision, Sandhu single-handedly chose a path of higher education, obtaining B Sc (Hons.) Chemistry (1952) and M Sc (Hons.) Chemistry (1953) from Punjab University, Hoshiarpur Campus, both with first class. He received Ph D from Punjab University, Chandigarh under the supervision of R. C. Paul (1958) in non-aqueous chemistry. After joining as lecturer in the Department of Chemistry, Punjab University, Sandhu was awarded the prestigious Commonwealth Scholarship to work with R. S. Nyholm (Univ. College, London). He obtained a second Ph D from University of London (1963) in metal carbonyl coordination chemistry. Thereafter, he had the unique opportunity of working in all the three major universities of Punjab Province. He served as a Lecturer (1958–63) and Reader (1963–66) in inorganic chemistry at Punjab University, Chandigarh, and then as Reader (1966–71) at Punjabi University, Patiala. When GNDU was established in Amritsar in 1969, Sandhu was asked to build up the Department of Chemistry as founder Professor and Head in 1971. He was instrumental in taking the Department from its inception to a nationally recognized one, retiring in 1990. He

served the University as Dean, Faculty of Sciences (1971–76, 78–80) and Dean, Academic Affairs (1975–77). He also served as founder Director of Punjab State Council of Science and Technology (1985–86).



Sandhu was a versatile scholar, making outstanding contributions in diverse areas of chemistry such as coordination chemistry, organometallic chemistry, X-ray crystal analysis, spectral analysis, organic chemistry, photochemistry, analytical chemistry and solid-state chemistry. In particular, he made fundamental contributions in coordination chemistry of transition metal complexes in solid-state reactions in non-aqueous solvents, synthetic organic chemistry, bio-inorganic chemistry, solid state chemistry of decomposition products of complexes, photochemistry of uranium ion, structure determination of compounds by X-ray diffraction technique, stability constants of transition metal complexes in solutions, reaction mechanism of metal complexes, and the study of soil pollution by industrial effluents containing toxic transition metal ions. He supervised 32 Ph D students, 50 M Sc students, and published more than 210 research papers in international and national journals, besides chapters in internationally published books. His students are continuing his lifelong mission of teaching and research in various institutions in India and abroad.

Early in his career, Sandhu was awarded a postdoctoral National Scholarship by the Ministry of Education, Government of India; fellowship of the National Research Council, Canada and Commonwealth Fellowship, UK. He was elected Fellow of the Indian National Science

Academy in 1982. He was also a Fellow of the Chemical Society, London; Royal Institute of Chemistry, England; Indian Chemical Society; Indian Science Congress Association. He served on the Editorial boards of the *Journal of Indian Chemical Society* and *Indian Journal of Chemical Sciences* (GNDU). He served on numerous selection committees of UGC, CSIR and Punjab Public Service Commission, for award of scholarships and grants. He also served on several working groups such as Science and Technology (Punjab) and Bio-inorganic Chemistry group under the Ministry of Science and Technology, Government of India.

In recognition of his contributions to promote education and research in GNDU, Sandhu was awarded the 'Silver Jubilee Commemoration Plaque' by the University in 1994. As part of his 60th birthday celebrations in 1990, his associates established the 'Professor S. S. Sandhu Award', which is given biennially to a renowned chemist by the Indian Chemical Society, Kolkatta.

During his tenure at Punjab University, Punjabi and GNDU, Sandhu prioritized revision of syllabi to bring them on par with international standards, and procurement of modern instruments to be competitive at national and international level. As founding Head of the Department of Chemistry at GNDU, he introduced unique job-oriented M Sc courses and diplomas in subjects such as analytical and instrumental techniques, chemistry of oils, soaps and detergents, dyeing and dyes, etc. The department quickly rose to prominence at the national level. The Chemistry Department at GNDU was selected for UGC's Special Assistance and COSIST programmes. As Dean Faculty of Sciences, Sandhu introduced the semester system, grading system and modern courses of teaching, and established the University Sciences and Instrumentation Centre.

Upon retirement in 1990, Sandhu moved to the United States, switching his scholarship to Sikh religion and interpretation of its scriptures.

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