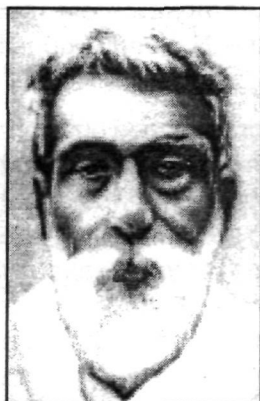


## Prafulla Chandra Roy

(1861-1941)



Prafulla Chandra Roy was born on 2nd August 1861 in Raruli-Katipara, a village in the District of Khulna (now in Bangla Desh). He belonged to a wealthy cultured family. A keen interest in education, rational thinking and great sympathy for the poor - Prafulla Chandra got all these qualities from

his father, Harish Chandra. His early education started in a village school. In 1870 Prafulla Chandra was admitted to the Hare School. But a severe attack of dysentery forced him to leave the school for a few years. When barely ten years old, he learnt Latin and Greek and also studied histories of England, Rome and Spain.

In 1879 he passed the Entrance Examination from the Albert School and joined the Metropolitan Institute (now called Vidyasagar College). His interest turned from literature to science after he read Benjamin Franklin's autobiography. While pursuing his studies in the Metropolitan Institute, Prafulla Chandra used to attend lectures by Alexander Pedlar on Chemistry in the Presidency College. The lectures of this inspiring teacher and skillful experimentalist influenced Prafulla Chandra to take up Chemistry for his studies in B.A. Prafulla Chandra won the 'Gilchrist Prize Scholarship' of the London University and left for Britain in 1882 for higher studies. He took B.Sc. degree in 1885 from London University. After this he did research in Chemistry for the D.Sc. degree of the University. In 1887 he was awarded this degree. He received the Hope Prize Scholarship of the University, which enabled

him to continue his work in the University for another year. In 1888 Prafulla Chandra returned to India. Though Prafulla Chandra had a Doctorate in Science, it became difficult for him to receive recognition in his own country. For about a year he spent his time working with his famous friend, Jagadish Chandra Bose in his laboratory.

In 1889 Prafulla Chandra was appointed as Assistant Professor of Chemistry in the Presidency College at Calcutta. He soon earned a great reputation as a successful and inspiring teacher. With the help of experiments, and with instances from everyday life, he made his lectures easy to follow. He advocated the use of mother-tongue as the medium of instruction in schools. For this, he began to write science text books in Bengali.

Prafulla Chandra came to realize that the progress of India was linked with industrialization. In those days there was hardly any industry in the country. Even drugs for Indian patients came from foreign countries. He led the pioneering attempt for preparing some chemicals at home and, in spite of all financial difficulties, founded 'The Bengal Chemical and Pharmaceutical Works'. Many graduates in Chemistry joined the staff of the factory and worked hard for its improvement. Textile mills, soap factories, sugar factories, chemical industries, ceramic factories and publishing houses were set up with his active co-operation. During all these years, he was also actively engaged in research in his laboratory at Presidency College. His publications on Mercurous Nitrite and its derivatives in 1896 brought him worldwide recognition. Prafulla Chandra was interested in

the work of the early Hindu chemists and after reading the famous book 'Greek Alchemy' by the great French scientist Berthelot his interest in Hindu Chemistry grew into a passion. His article about a famous Sanskrit treatise 'Rasendrasara Sangraha' was published by French scientist Berthelot with an introduction praising it as an extremely interesting article. After several years Prafulla Chandra published his famous book, - 'The History of Hindu Chemistry' which received great praise from scientists all over the world. In this book he gave a very interesting account to show that Hindu scientists knew about the manufacture of steel, about distillation, salts, mercury sulfides etc., from very early times.

In 1904 Prafulla Chandra proceeded to Europe on a study tour and visited many famous chemical laboratories. He made acquaintance with such famous scientists as William Ramsay, James Dewar, Perkin, Van't Hoff and Berthelot. In 1912, Prafulla Chandra visited London again to represent the University of Calcutta at the Congress of the Universities of the British Empire. He delivered speeches at the Congress and later before the Chemical Society. In 1916 he retired from the Presidency College. Sir Asutosh Mukherjee, the then vice-chancellor of Calcutta University, appointed him as a professor of Chemistry at the University Science College. The University Science College had been started just then. Prafulla Chandra and his students used whatever facilities were available there and did remarkable work. Prafulla Chandra, who was a bachelor, worked in this college for twenty years and lived in a simple room on the first floor of the college with some of his students who were poor and could not live anywhere else.

In recognition of Prafulla Chandra's great work he was elected President of Indian Science Congress and Indian Chemical Society more than once. Many Indian and Western Universities conferred honorary doctorates on him. In 1932 he wrote his autobiography in English and named

it 'The Life and Experience of a Bengali Chemist'. It was praised everywhere. Later, he himself translated it into Bengali. The book was called 'Atma Charita'. In recognition of his service to Bengali literature he was twice elected President of the Bengali Literary Conference. He was also President of the National Council of Education.

In 1921 when Prafulla Chandra reached 60 years he donated, in advance, all his salary for the rest of his service in the University, which was about two lakh rupees, for the development of the Department of Chemistry and for the creation of two research fellowships. In addition, he gave ten thousand rupees for an annual research prize in Chemistry named after the great Indian Chemist Nagarjuna and another ten thousand for a research prize in Biology named after Sir Asutosh Mukherjee. He had shares valued at one lakh rupees in the Bengal Chemical company which he gave away for the benefit of poor widows, orphans, and to help spinning and production of Khadi. The rest of his property was given to the Brahmo Samaj, a religious organization, and to a high school in Raruli founded in the name of his father. He severely opposed the evils like untouchability, child marriage and dowry system.

When India was still under foreign rule and when facilities for scientific research were very meagre in the country he not only developed centres of research in chemistry and trained brilliant students like Meghnad Saha and Shanthi Swarup Bhatnagar, but also, by original research work, placed India in a high position in the world of chemistry. He is recognised as the father of Indian chemical industry. He was also a great patriot and social worker. Mahatma Gandhi and G.K.Gokhale were among his friends. Although the industry he had built amassed lakhs of rupees he lived like a hermit. Acharya Prafulla Chandra passed away on 16th June, 1944 in the same room he had occupied for twenty-five years.