

Prafulla Chandra – A Tribute to the Master

A lover of literature, history and biography, Prafulla Chandra claimed that he "*became a chemist almost by mistake*". In practice he became the all-inspiring *guru* of the first research school of chemistry in the country. He became a celebrated historian of chemistry, a champion of chemical industry, a patriot and social worker given to ceaseless service and a philanthropist who gave away his all in charity. A small man in feeble health, a confirmed dyspeptic, his was a case of the mind far overtaking the body. In his own words, "*diversified work has been my recreation, the chief solace of my life*".

Prafulla Chandra was born on August 2, 1861. Rabindranath Tagore, Motilal Nehru and Madan Mohan Malviya were born in the same year. Indeed the second half of the nineteenth century was the best of times -- a season for the arrival of many greats. Young Prafulla Chandra inherited his love for literature from his parents and was much influenced in his social thinking by reformers and nationalists of the day. The lectures of Professor Alexander Pedler in the FA course at Presidency College first attracted him to chemistry. Later he became "*passionately fond of chemistry*" while completing B.Sc. and D.Sc.(1887) at Edinburgh University as a Gilchrist Scholar. His mentor at Edinburgh was the legendary Professor Alexander Crum Brown.

Now it was his time to make history and to become a legend, first from Presidency College (1889-1916) and later from College of Science (1916-1944). In teaching he was in his elements "*as a fish in water*". The discovery of mercurous nitrite (1896) was a great beginning that will soon catapult him as a pioneer researcher in the chemistry of nitrites and related species. From the College of Science he made seminal contributions on the chemistry of sulphur compounds and their transition metal complexes, on size-dependent chemical homology and isomorphism, on fluorination and much more. He published about 160 original papers, many of which appeared in *Chemical Society Transactions* and *Nature*. His dedication attracted many bright students and the first *Indian School of Chemistry* was thus born and in time it spread far and wide.

The synergy of science and industry in the west and its potential for job creation had greatly impressed Prafulla Chandra during his Edinburgh days. Why not in India, he asked. And he found time and money to do experiments on the making of pharmaceuticals, mineral acids etc. initially in his own residence. The final outcome was Bengal Chemical and Pharmaceutical Works. In the same year, he published his celebrated *History of Hindu Chemistry* - a result of years of laboured research. He was knighted in 1919, and in 1934 he became an Honorary Fellow of London Chemical Society. The Indian Chemical Society was born in 1924 with him as the Founder-President.

He passed away on June 16, 1944 - two more months would have made him eighty three. In paying homage, *Nature* of July 15 1944 wrote, "*Sir Prafulla was more than anyone else, responsible for the great development of scientific research in India during past fifty years.....*"

This issue of Indian Journal of Chemistry is brought out to celebrate the 150th Birth Anniversary of Prafulla Chandra (2011). Authors were requested to submit manuscripts keeping in mind the compound types that would have interested Prafulla Chandra (oxygen, nitrogen, fluorine, chalcogen, mercury, gold, platinum metals etc). The response was overwhelming and we are very thankful to the authors for their whole-hearted cooperation which has made this issue possible. The focus is on nanochemistry, cluster species, metallo-organic frameworks, macrocycles, anion sensing, bioinorganic modelling and more.

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