

Editorial

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What were the resources and equipment available to a synthetic chemist during the later part of the nineteenth century and the beginning of the twentieth century? To the extent I know, the list may contain the following: refractometer, polarimeter, simple microscope, manual elemental analyser, manual two-pan balance, moderate quality glassware which mainly consisted of test-tubes, beakers, flasks, condensers, etc., mostly without ground-joints. Heating was mainly provided by gas burners or spirit lamps and cooling was done using ice or ice-salt mixtures. The low pressure needed for filtration and distillation was obtained by using water aspirators. The reagents available were limited. To cut this short, the conditions then were very primitive compared to a plethora of techniques and facilities that are now available to a chemist for synthesis, purification and analysis. There were no spectroscopic instruments, no chromatography of any kind (Tswett had announced his work on chlorophyll separation in 1903 and it took a few decades for the technique to become common), which we now take for granted and nobody even thinks of doing any research without them. Those were the primitive conditions under which Fischer and his team worked. What he achieved with such meagre facilities is something phenomenal, to say the least.

Emil Fischer, one of the greatest synthetic chemists, laid the foundation to many new subjects bordering biology and chemistry. He had overshadowed his mentor von Bayer and famous seniors like Kekulé, as he was preferred to succeed A W Hofmann to the Chair of Chemistry at the University of Berlin, and selected to receive the Nobel Prize much before von Bayer. (Such jumping the hierarchy or seniority is unthinkable to happen in India). *Resonance* is very happy to feature such a giant of a scientist during the International Year of Chemistry. His lecture reproduced in the Classics Section gives a glimpse, yet a beautiful picture of his achievements.

