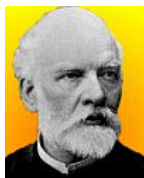
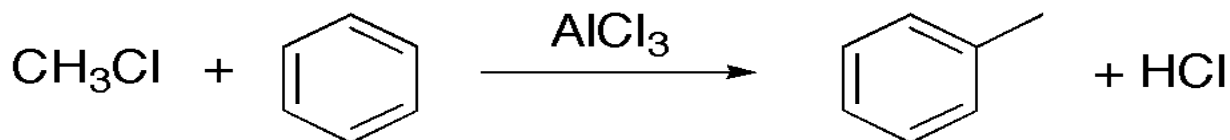


CHARLES FRIEDEL



Charles Friedel was born on March 12, 1832, in Strassburg, France. After graduating at Strassburg University, he spent a year in the counting-house of his father, a banker and merchant. In 1851, he went to live in Paris with his maternal grandfather, Georges Louis Duvernoy, professor of natural history and comparative anatomy at the College de France. In 1854 he started research with C. A. Wurtz, and two years later, he was appointed conservator of the mineralogical collections at the Superior National School of Mines. He received the D.Sc. in 1869 with a study of the ketones and aldehydes. In 1871 he began to lecture at the Ecole Normale, and in 1876, he became professor of mineralogy at the Sorbonne, but on the death of Wurtz in 1884, he transferred to the professorship of organic chemistry.

He was a French organic chemist and mineralogist. In organic chemistry, he prepared secondary propyl alcohol in 1862. One year later, with James M. Crafts, he obtained various organometallic compounds of silicon. A few years later, he and Albert Ladenburg prepared silicochloroform that led to a demonstration of the close analogy existing between the behavior in combinations of silicon and carbon. In 1871, he synthesized glycerin, starting from propylene with R. D. da Silva. In 1877, the first publication appeared of the widely used method for synthesizing benzene homologues now known as the "Friedel-Crafts reaction." It was based on an accidental observation of the action of metallic aluminium on amyl chloride in which a hydrocarbon and an organic chloride react in the presence of aluminium chloride to form a more complex body.



From 1879 to 1887, he collaborated with Emile Edmond Sarasin to study the formation of minerals by artificial means. In 1893, he attempted to make diamonds by the action of sulphur on highly carburetted cast iron at 450°-500° C. The product was a black powder too small in quantity to be analysed but hard enough to scratch corundum. He also did research in the pyroelectric phenomena of crystals and determined crystallographic constants.

He assisted C. A. Wurtz in editing the latter's *Dictionnaire de chimie* and supervised the supplements issued after 1884. He was the chief founder of the *Revue generale de chimie* in 1899. His publications include a *Notice sur la vie et les travaux de Wurtz* (1885), *Cours de chimie organique* (1887) and *Cours de mineralogie* (1893). He was president of the International Congress held at Geneva in 1892 for revising the nomenclature of the fatty acid series.

He died at Montauban on the 20th of April 1899.

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