

## Biography of Dionyz Ilkovic (1907-1930)

Dionýz Ilkovič was born in Sarissky Stivník, a town in the northern part of eastern Spiska Zupa, Slovakia. His father, Hilar Ilkovič (1874-1956), and mother, Irena Ilkovič nee Toronska (1881-1963), had four children: Mikulas (1904-1978), Dionyz, Alexej (1910-1944) and Marta (1912 – 1993). Dionýz was the second child in the family. He was educated in an elementary public school in Fulianke (1912-1916), then in a catholic gymnasium in Presove (1916-1919), and later in a Czechoslovakian gymnasium in Presove (1919-1924). Then Dionýz Ilkovič went to Prague where he continued his education in the Czech Technical University (1924-1925) in electrical engineering.

He continued his education at the Natural Science Faculty of the Charles University in Prague (1925-1930) where he studied chemistry and physics. Dionýz Ilkovič met Professor Heyrovsky in the Charles University and came to his lab for postgraduate study in 1930. Ilkovič became a research assistant for Heyrovsky. He worked in the field of polarography under supervision of Professor Heyrovsky. His first scientific paper about compensation of a capacity current was published in 1932 and in 11. 3. 1932 Ilkovic received his Ph.D.

Ilkovič was one of the co-founders of polarography. In the scientific world, he is known for his “Ilkovic’s equation” which is considered to be the basic rule of polarography. Based on experimental observations indicating that capillaries with equal flow-rates give approximately equal linear currents, and that the current increases with increasing height of the mercury column, and that the dependence has a shape of a parabola, Ilkovič successfully solved the problem of a current governed by the rate of diffusion towards the electrode surface. Considering diffusion to a planar electrode with a surface area increasing with time for description of the transport to a growing mercury drop, Ilkovic derived the formula for the mean limiting diffusion current (averaged over drop lifetime).

After finishing his Ph.D. study with Prof. Heyrovsky in Prague, Ilkovič was teaching chemistry in different colleges (1932-1940). In 1934 he received a Professor status there. In 1937/38 Ilkovič visited laboratory of Professor Audubert in Paris. In 1940 he returned to Slovakia and until 1976 he was a professor at the Technical University and Science Faculty of Comenius University in Bratislava. Professor Ilkovič founded the Institute of Physics of the Slovak Academy of Sciences and was the director of the Institute during the initial period. His primary field of interest was physical chemistry, but he also worked in mathematical physics. The first modern university physics textbook in Slovakia is also connected with his name. He retired in 1976.

Dionýz Ilkovič died from heart attack in 1980 and was buried in Crematory Bratislava, Slovakia.

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