## Johannes Stark



Born in <u>Schickenhof</u>, <u>Kingdom of Bavaria</u> (now Freihung), Stark was educated at the Bayreuth Gymnasium (secondary school) and later in Regensburg. His <u>collegiate</u> education began at the University of Munich, where he studied physics, mathematics, chemistry, and crystallography. His tenure at that college began in 1894; he graduated in 1897, with his doctoral dissertation titled Untersuchung über einige physikalische, vorzüglich optische Eigenschaften des Rußes (Investigation of some physical, in particular optical properties of soot)

Stark worked in various positions at the Physics Institute of his alma mater until 1900, when he became an unsalaried lecturer at the University of Göttingen. An extraordinary professor at <u>Hanover</u> by 1906, in 1908 he became professor at the **RWTH Aachen University**. He worked and researched at physics departments of several universities, including the University of Greifswald, until 1922. In 1919, he won the Nobel Prize in **<u>Physics</u>** for his "discovery of the <u>Doppler effect</u> in <u>canal rays</u> and the splitting of spectral lines in electric fields" (the latter is known as the **Stark** effect). From 1933 until his retirement in 1939, Stark was elected President of the **Physikalisch-Technische Bundesanstalt**, while also President of the Deutsche Forschungsgemeinschaft.

It was Stark who, as the editor of Jahrbuch der Radioaktivität und Elektronik, asked in 1907, then still rather unknown, <u>Albert Einstein</u>to write a review article on the principle of relativity. Stark seemed impressed by relativity and Einstein's earlier work when he quoted "the principle of relativity formulated by H. A. Lorentz and A. Einstein" and "Planck's relationship  $M_0 = E_0/c^2$ " in his 1907 paper<sup>[2]</sup> in<u>Physikalische Zeitschrift</u>, where he used the equation  $e_0 = m_0 c^2$  to calculate an "elementary quantum of energy", i.e. the amount of energy related to the mass of an electron at rest. While working on his article,<sup>[3]</sup> Einstein began a line of thought that would eventually lead to his generalized theory of relativity, which in turn became (after its confirmation) the start of Einstein's worldwide fame. This is heavily ironic, given Stark's later work as an anti-Einstein and anti-relativity propagandist in the *Deutsche Physik* movement.

Stark published more than 300 papers, mainly regarding <u>electricity</u> and other such topics. He received various awards, including the <u>Nobel Prize</u>, the Baumgartner Prize of the<u>Vienna Academy of Sciences</u> (1910), the Vahlbruch Prize of the <u>Göttingen Academy of Sciences</u> (1914), and the <u>Matteucci Medal</u> of the <u>Rome</u> <u>Academy</u>. Probably his best known contribution to the field of <u>physics</u> is the <u>Stark</u> <u>effect</u>, which he discovered in 1913.

He married Luise Uepler, and they had five children. His hobbies were the cultivation of fruit trees and forestry. He worked in his private laboratory on his country estate in Upper Bavaria after the war. There he studied the deflection of light in an electric field

## Thats all