

Johannes Stark



Johannes Stark is the forgotten Nobel Prize recipient, because he sympathized with the Nazis and benefited from them. His political history, which he had to stand in trial for, cast a shadow over his scientific achievement. Nevertheless Stark is part of the list of Nobel Prize recipients of the University of Würzburg. It is remarkable though, that Max von Laue, who was also researching in Würzburg and was engaged in helping threatened scientist in difficult times, testified against him in court.

Biography

Johannes Stark was born in Schickenhof near Weiden on April 15th 1874. Between 1892 and 1897 he studied physics with Eugen Lommel in Munich and did his Ph.D. with a thesis on soot in 1897. Between 1897 and 1899 he became an assistant at the Department of Physics. In 1900 Stark habilitated at the University of Göttingen. He worked as a senior academic assistant and as an assistant with Eduard Rieke at the University of Göttingen, until he accepted an associate professorship in physics at the Technical

University of Hanover in 1906. In 1909 Stark transferred to Aachen and in 1917 to the University of Greifswald.

In 1919 Johannes Stark received the Nobel Prize in Physics for his "discovery of the Doppler effect in canal rays".

In 1920 Stark transferred to Würzburg where he succeeded Wilhelm Wien. In 1922 he withdrew due to disagreements. After Hitler's rise to power Stark was president of the 'Physikalisch-Technische Reichsanstalt' in Berlin between 1933 and 1939.

Due to his Anti-Jewish publications and his membership in the Nazi Party he went to trial after the war. Von Laue, Heisenberg and Sommerfeld testified against him. On July 20th 1947 Johannes Stark was classified as a 'Major Offender' and received a sentence of four years in labor camp. This verdict was reversed later on.

Johannes Stark died in Traunstein on June 21st 1957.

Research/Nobel Prize

In 1905, when Einstein published his theory on special relativity, Stark was able to prove one of the effects of relativity in an experiment. The movement of a light source has an effect on the emitted frequency. The acoustic Doppler effect was also proved on atomic scales.

In 1896 Peter Zeemann discovered the splitting of spectral lines into triplets under the influence of a strong magnetic field. What happens in a strong electric field? Stark overcame the experimental difficulties and discovered very similar effects in 1913.

Working and living in Würzburg

In 1920 Wilhelm Wien succeeded Röntgen in München and Stark was able to succeed him at the University of Würzburg. Stark had a difficult and power-obsessed personality. It did not take long until his behavior caused a bad atmosphere and quarrel with the faculty: A habilitation thesis did not meet the usual requirements and he did not fulfill his lecture duties. After only two years he retired from the teaching staff and returned to his home town. Due to his Nobel Prize he was financially independent.