



Lord Rayleigh: Nobel Prize in Physics 1904



Lord Rayleigh

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Lord Rayleigh was born on November 12, 1842 at Langford Grove, Maldon, Essex. Throughout his infancy and youth he was of frail physique; his education was repeatedly interrupted by ill-health. In 1861 he entered [Trinity College, Cambridge](#), where he studied mathematics. With his exceptional abilities, he graduated in the Mathematical Tripos in 1865 as the top First Class student. In 1866 he obtained a fellowship at Trinity College which he held until 1871, the year of his marriage. In 1873, his father died and he succeeded to the barony. However, in 1876 he left the entire estate management to his younger brother.

From then on he devoted all his time to science. In 1879 he succeeded James Clark Maxell as Professor of Experimental Physics and Head of the [Cavendish Laboratory](#) at Cambridge. At first he researched optics and vibrations, both of which are rather mathematical topics. Later, he considered physics as a field of work in itself and investigated wave theory, light scattering, electrodynamics, hydrodynamics, viscosity and photography. His careful, precise work led to the establishment of standards for resistance, current and electromotive force. This attracted many bright students and the number of research students at the Cavendish Laboratory increased from six to seventy under his leadership. Lord Rayleigh was also famous for his Theory of Sound, which was published in two volumes during 1877-1878.

In 1884 he left Cambridge to continue his experimental work at Terling, Essex. For much of his career he divided his time between his laboratory at Terling and the Royal Institution in London, where he was Professor of Natural Philosophy from 1887 to 1905. During this time he also did investigations of the densities of several gases. The experiments for the isolation of argon, for instance, were first carried out at the Royal Institution, but the final production was made at Terling. Lord Rayleigh was awarded the Nobel Prize in Physics 1904, "for investigations of the densities of the most important gases and for his discovery of argon in connection with these studies".

Lord Rayleigh served for six years as President of a Government Committee on Explosives, and from 1896 to 1919 he was Scientific Advisor of the Government. He was a Lord in Essex from 1892 to 1901. He was recipient of the Order of Merit (1902), and in 1905 he was made a Privy Councillor. He was awarded the Copley, Royal, and Rumford Medals of the Royal Society. Lord Rayleigh died on June 30, 1919, at Witham, Essex.