



### **John William Strutt Rayleigh (Lord Rayleigh) (1842-1919)**

British physicist and mathematician Lord Rayleigh discovered the inert gas argon (Ar) in 1895, which earned him the 1904 Nobel Prize in Physics. His colleague in this research, Sir William Ramsay, won the same year's Nobel Prize in Chemistry. Born John William Strutt, he became Lord Rayleigh the Third Baron of Terling Place at the death of his father in 1873, and did much of his research in a private laboratory on the family estate. His 1871 Theory of Scattering was the first scientific work to correctly explain why the sky is blue, and his two-volume *The Theory of Sound* clarified the mechanics of vibration and acoustic wave propagation.

He studied under George Gabriel Stokes, was a distant relative of Robert Boyle, and his students included George Paget Thomson and J. J. Thomson. His brother-in-law, Arthur Balfour, was Prime Minister of England from 1902-05. Lord Rayleigh succeeded James Clerk Maxwell as Cavendish Professor of Physics at Cambridge in 1879 but remained at this post for only five years before returning to his mansion and secluded lab. He also worked to establish absolute standards for the ohm and other scientific measurements, and served as President of the paranormal research group Society for Psychical Research.

### **Education and Career:**

High School: Eton College, Windsor, Berkshire, England (attended)  
High School: Harrow School, London, England (1861)  
University: BA, Trinity College, Cambridge University (1865)  
University: MA, Trinity College, Cambridge University (1868)  
Professor: Cavendish Professor of Physics, Cambridge University (1879-84)  
Professor: Natural Philosophy, Royal Institution of Great Britain (1897-1905)  
Administrator: Chancellor, Cambridge University (1908-19)

### **Awards:**

Royal Medal 1882  
Matteucci Medal 1894  
Copley Medal 1899  
French Legion of Honor  
LMS De Morgan Medal 1900  
Order of Merit 1902  
Prussian Order Pour le Mérite 1903  
Nobel Prize for Physics 1904  
Rumford Medal 1920  
Athenaeum Club (London)  
British Association for the Advancement of Science  
London Mathematical Society President (1876-78)  
Royal Institution of Great Britain  
Royal Society 1873  
Royal Society Secretary (1885-96)  
Royal Society President (1905-08)  
Royal Society of Edinburgh  
Society for Psychical Research President (1919)  
Nature  
Lunar Crater Rayleigh (29.0° N 189.2° E, 107 km. diameter)  
Martian Crater Rayleigh (75.6° S 240.9° W, 149 km. diameter)

### **Author of books:**

The Theory of Sound (1877-78, physics; two volumes)  
The Becquerel Rays and the Properties of Radium (1904, physics)