

# CV Raman Biography: Life, Family, Education, Awards and Achievements

Sir Chandrashekhar Venkata Raman (CV Raman) was born on 7 November 1888 in Tiruchirappalli, India. He made tremendous contributions in the field of physics for which he was awarded the Nobel Prize. CV Raman's father was a lecturer of mathematics and physics. Hence, watching him get involved in science, Raman also developed an interest in the field of physics. He acquired his higher education in Physics from the Presidency College, Chennai in 1904. CV Raman is famous for his discovery of the scattering of light, popularly known as the <u>Raman Effect</u>. In this blog, you will read C V Raman biography in English including his early life, family, educational journey, and major achievements. Make sure to read till the end to find a downloadable C V Raman biography PDF for students.

### CV Raman Early Life

Dr CV Raman was an intelligent scientist who was born on 7 November 1888. He was involved in academics from his childhood. His father, Chandrasekhara Ramanathan Iyer was a lecturer and his mother was a homemaker. They both supported him in his higher education. In 1907, Raman married Lokasundari Ammal. He had two sons who were also great at studies. CV Raman once said that his wife was his greatest critic and supporter, whereas his children were the source of inspiration. He had two sons, Chandrasekhar Raman and Venkatraman Radhakrishnan.

He became a teacher and dedicated his life to teaching and mentoring young scientists at the Indian Institute of Science where he served as a Director from 1933 to 1948.

#### **CV Raman Education**

CV Raman acquired his higher education from the Presidency College, Madras in 1902 and obtained his bachelor's degree in physics (BA) in 1904. He secured first place and won the gold medal in physics. Post graduation he completed an MA degree in physics in 1907 with the highest distinctions. CV Raman has researched in the field of optics and acoustics and gave the most popular discoveries i.e. scattering of light.

In 1907, he joined the Indian Finance Department and while working he took out time to conduct experimental research in the labs of the Indian Association for the Cultivation of Science at Calcutta.

In 1917, he earned the Palit Chair of Physics at Calcutta University. He also served as a Professor at the Indian Institute of Science in Bangalore (1933-1948) and then, he became the director of the Indian Institute of Science.



#### CV Raman Awards and Achievements

CV Raman's great contributions in the field of science and technology have inspired many young scientists. He also became the first Indian physicist to win the Nobel Prize. Here are some of the major awards won by C. V. Raman:

- Nobel Prize in Physics (1930)
- Bharat Ratna (1954)
- Lenin Peace Prize (1957)
- Hughes Medal of the Royal Society (1930)
- Matteucci Medal (1928)
- Franklin Medal (1941)
- Knight Bachelor (1930)
- Fellow of the Royal Society (1924)
- Woodburn Research Medal (1913)
- Curzon Research Award (1912)

## **CV** Raman Inventions

Although C V Raman is known for his Raman Effect discovery, he contributed to several other inventions such as:

- Spin of photons: In 1932, CV Raman collaborated with Suri Bhagavantam to determine the spin of photons. This helped understand and confirm the quantum nature of light.
- Raman-Nath theory: Sir CV Raman worked with his student Nagendra Nath to provide the theoretical description of the acousto-optic effect. This led to the origin of the Raman-Nath theory which has helped enable optical communication components through the use of modulators and switching systems.
- Study on diffraction of light: CV Raman also conducted theoretical and experimental studies on X-rays and their effect on infrared vibrations in crystals exposed to ordinary light. Additionally, this study included diffraction of light by hypersonic and ultrasonic acoustic waves.
- Study of crystal dynamics: In 1948, CV Raman began the study of the spectroscopic behaviour of crystals. He dedicated 1944 to 1968 to his study of the characteristics of diamonds. However, in the early 1950s, Sir Raman studied the structure and optical behaviour of iridescent materials such as agate, quartz, labradorite, feldspar, and pearl.