

C V Raman

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In News: He was the first nobel prize winner in physics not only from India but also from the whole Asian Continent.

C V Raman Biography

“I would like to tell the young men and women before me not to lose hope and courage. Success can only come to you by courageous devotion to the task lying in front of you”

- C V Raman was born on **7 November 1888 in Tiruchirapalli in modern Tamil Nadu.**
- His father was a lecturer of Physics and Mathematics at a college in Visakhapatnam.
- He was a brilliant student and joined the Presidency College at Chennai in 1902 aged just 13 for his graduation.
 - He passed out in 1904 with a Gold Medal in Physics.
 - He completed his post-graduation from the University of Madras in 1907 with distinction.
- He joined the Indian Finance Department as Assistant Accountant General in Calcutta.
- He continued to do research at the Indian Association for Cultivation of Sciences in Calcutta (IACS) whenever he got time. He also published papers in leading international journals such as 'Nature' and 'Physics Review'.
- **In 1917, he resigned from his government job and pursued his true calling when he was offered the Palit Chair of Physics at Calcutta University.**
- It was at IACS that Raman along with his collaborators discovered what is now called the 'Raman Effect'.

- This discovery on the scattering of light was made on February 28, 1928.
- This effect proved the quantum nature of light and had huge value at that time.
- The Raman Spectroscopy was based on this phenomenon.
- For this discovery, Raman was awarded the Nobel Prize in Physics in 1930.
 - The Nobel Committee stated that the award was given “for his work on the scattering of light and for the discovery of the effect named after him”.
- He was the first Indian, Asian and non-white person to win a Nobel Prize for the sciences.
- In 1933, he became the first Indian Director of the Indian Institute of Science (IISC) in Bangalore.
- In 1948, he founded the Raman Research Institute (RRI) in Bangalore for conducting experiments in Physics. He continued to do research at RRI till his death in 1970.
- Raman died of natural causes on 21 November 1970 aged 82 in Bangalore.

Honours and awards

- Fellow of the Royal Society – 1924
- Knighthood – 1929
- Nobel Prize (Physics) – 1930
- Franklin Medal – 1941 (Franklin Institute, USA)
- Bharat Ratna – 1954
- Lenin Peace Prize – 1957
- Several phenomena in science related to the Raman Effect are named after him.

His Major Contribution

Raman Effect:

- After intensive study at his laboratory in Bangalore, he

concluded that when a light beam travels through a medium the beam is deflected by the molecules.

- But more importantly he observed that a small part of the emerging light beam after deflection by the molecules had a different wavelength from the original beam.
- This change in wavelength of the light is known as the raman effect.

The Colour Of SEA:

- With the help of this phenomenon he also discovered the reason why the color of ocean water was blue.
- The reason was the scattering of color from the water.
- Before raman Introduced his theory, it was believed that the sea gets blue color from the sky or due to suspended matter in the water.