

# Meghnad Saha

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## About Meghnad Saha

### Biography

- Born on October 6, 1893 in Shaoratoli, which is a village located in the Dacca district (that corresponds to modern-day Dhaka in Bangladesh),
- Meghnad Saha was the fifth child born to Jagannath Saha and Bhubaneswari Devi.
- During his early schooling he was forced to leave Dhaka Collegiate School because he participated in the Swadeshi movement.
- He earned his Indian School Certificate from Dhaka College.
- He became Fellow of the Royal Society in 1927. He was president of the 21st session of the Indian Science Congress in 1934.
- Amongst Saha's classmates were Satyendra Nath Bose, Jnan Ghosh and J. N. Mukherjee.
- Saha died on 16 February 1956 of a cardiac arrest in New Delhi.

### Education

- Having passed middle school, Saha enrolled at the Collegiate School in Dacca in 1905. While in school, mathematics and history were his favourite subjects.
- In 1911, he cleared the intermediate examination with the third rank, while the first position went to Satyendra Nath Bose
- Saha joined Presidency College, Calcutta, where Bose was his classmate once again. At Presidency, he was taught by Prafulla Chandra Ray and Jagadish Chandra Bose, both great men of science.
- Saha completed BSc in mathematics in 1913 and, two years

later, wrapped up MSc in Applied Mathematics.

## Career

- In 1916, Saha was appointed as lecturer in the Department of Applied Mathematics at the University College of Science, Calcutta.
- In 1919, obtained the Doctor of Science degree from Calcutta University and the coveted Premchand Roychand Studentship for a dissertation on the Harvard Classification of Stellar Spectra.
- In 1923, Saha became the professor of physics at the University of Allahabad, where he remained for the next 15 years.
- During that period, his work in astrophysics earned recognition and, in 1925, he was made the president of the physics section of the Indian Science Congress Association.

## His Achievements and Contribution

- Famous equation that he termed as an 'equation of the reaction – isobar for ionization', which later became known as Saha's 'thermo-ionization equation' or the Saha Equation.
- It links the composition and appearance of the spectrum with the temperature of the light source and can be used to determine either the temperature of the star or the relative abundance of the chemical elements investigated.
- In 1920, he published four papers on his astrophysical research in the Philosophical Magazine.
- His thesis won the prestigious Griffith Prize instituted by the Calcutta University.
- He was a strong supporter of the peaceful use of nuclear energy.
- Saha founded the Indian Science News Association in Calcutta in 1935 and the Institute of Nuclear Physics in

1950.

- In 1952, he contested and won the parliamentary election as an independent.
- Saha was the chairman of the Calendar Reform Committee which was appointed by the Union government in 1952 under the aegis of the Council of Scientific and Industrial Research.
- In 1956, it was his efforts that the Saka Calendar or the Indian national calendar, was adopted.
- He is also credited for drawing up the original plan of the Damodar Valley Project.