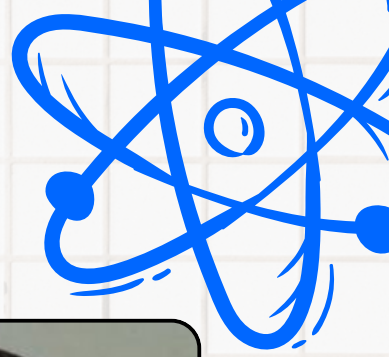


Meghnad Saha



Meghnad Saha (1893–1956) was a prominent Indian astrophysicist and a visionary figure who made significant contributions to the fields of science and nation-building in India.



Early life and education :

- Born in a small village in present-day Bangladesh, Saha faced socioeconomic and caste-related challenges during his upbringing.
- Despite humble beginnings, he excelled academically and secured scholarships to pursue his education.
- He earned his D.Sc. degree from Calcutta University in 1919.

Key contributions

- **Thermal Ionization and the Saha Equation:** Saha's most significant contribution was the development of the theory of thermal ionization and the Saha ionization equation (also known as the Saha-Langmuir equation), according to chemurope.com.
- This equation explains the ionization state of elements in stars, enabling astronomers to accurately connect the spectral classes of stars to their actual temperatures.
- The Saha equation also finds applications in other areas such as the study of the ionosphere, conductivity of flames, electric arcs, and explosion phenomena.
- **Research in diverse fields:** His research extended beyond astrophysics, encompassing areas like beta radioactivity, the age of rocks, molecular dissociation, the propagation of radio waves in the ionosphere, and the solar corona.
- **Founding scientific institutions:** Saha played a pivotal role in establishing numerous scientific institutions and organizations in India. Some notable examples include the Physics Department at Allahabad University, the Institute of Nuclear Physics (now Saha Institute of Nuclear Physics) in Kolkata, and the journal Science and Culture. He also contributed to the establishment of the National Academy of Science, the Indian Physical Society, and the Indian Institute of Science.
- **National planning and policy:** Saha actively participated in national planning and policy-making, particularly concerning the role of science and industry in India's development. He was a founding member of the Council of Scientific and Industrial Research (CSIR) and served as chairman of several of its committees, according to YouTube. He also served as the Chairman of the Indian Calendar Reform Committee, according to YouTube.
- **Political involvement:** Saha was elected as an independent member of the Indian Parliament, showcasing his commitment to public service and utilizing science for societal betterment.

Recognition and legacy :

- Saha was nominated for the Nobel Prize in Physics multiple times but never awarded.
- He was elected a fellow of the Royal Society in 1927.
- A lunar crater is named after him.
- He left an indelible mark on Indian science, fostering a culture of research and advocating for the integration of science with national development.

Jagadish Chandra Bose's work continues to be relevant in fields like physics, radio science, and plant physiology. He remains an inspirational figure in science, particularly in India.

