



Indian Institute of Space Science and Technology

Valiamala, Thiruvananthapuram - 695 547, Kerala

RAMAN SPECTROSCOPY: A VERSATILE TOOL FOR PHYSICS, CHEMISTRY, AND BIOLOGY

A Colloquium by

Prof. Chandrabhas Narayana

Director, Rajiv Gandhi Centre for Biotechnology (RGCB), Thiruvananthapuram



03:15
04:30

TO



27
AUGUST **2025**



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Council Hall

The talk is an exposition of the many facets of Raman Spectroscopy. Raman spectroscopy will celebrate its 100th anniversary of discovery in three years, but it has come a long way in entering fields previously unheard of. Many researchers, especially those working in nanotechnology and nanomaterials, have utilized this as a characterizing tool; however, in the hands of an expert, it can explain various phenomena. Raman spectroscopy primarily examines molecular vibrations, but due to its origin, it is a landmine of information. In this talk, we elucidate how electronic transitions can be detected through Raman spectroscopy in the context of topological transitions, thereby understanding their applications in therapeutics and diagnostics in biology.



Prof. Chandrabhas Narayana: Director, Rajiv Gandhi Centre for Biotechnology (RGCB), Thiruvananthapuram, is a distinguished scientist renowned for his pioneering contributions to the application of Raman spectroscopy in diverse areas such as drug-protein interactions, drug screening, and diagnostics. Under his leadership, his research group has earned national recognition for innovative work at the interface of Physics, Chemistry, and Biology using Raman spectroscopic techniques.

He is an elected Fellow of several prestigious scientific academies, including the Indian Academy of Sciences (FASc), the Royal Society of Chemistry (FRSC) and the National Academy of Sciences, India (FNASc). Prof. Narayana has received numerous awards and honours throughout his career. Notably, he is a recipient of the CRS Gold Medal Award of the Chirantan Rasayan Sanstha, ISAS Raja Ramanna Award.

In addition to his research achievements, Prof. Narayana has held several key leadership positions on national and international scientific committees. He also serves as a member of the editorial boards of multiple peer-reviewed journals of national and international repute.



Live Stream: <https://tinyurl.com/2p8c4wmx>

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