

## **Decay of Hoyle State**

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The prediction of the Hoyle state was necessitated by our very existence on earth! After the experimental confirmation of its existence, soon it was realised that the Hoyle state was a puzzle, which has been gradually unfolding itself – till today! As a result, it remained as a nucleus of intense theoretical and experimental activities over past few decades. With the advent of precision experimental tools and novel theoretical techniques, there have been several attempts in the recent years to improve the understanding of the structure of the Hoyle state. A review of this exciting saga of the Hoyle state puzzle, alongwith our recent activities on the experimental study of the structure of Hoyle state using the cyclotron accelerator at Kolkata will be presented in this talk.

