

Nuclear solid state techniques at VECC

Gamma ray spectroscopy is a well known technique in nuclear physics research. Based on gamma ray spectroscopy, a number of nuclear solid state techniques, e.g., positron annihilation techniques, Mossbauer spectroscopy, perturbed angular correlation technique, etc., are widely used in the area of solid state physics / materials science research since last several decades. These facilities have huge potentials in characterizing different materials in future also. In the presentation, the basic principles of these nuclear solid state techniques and its unique characterization ability will be covered. The radioactive isotopes available from the upcoming ANURIB facility and the e-LINAC based positron beam facility will provide new opportunities with the nuclear solid state techniques for materials science research.

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