



# Module 2: Nuclear Reactions and Production of Radioisotopes

## Prof. B.S. Tomar

### ABOUT INSTRUCTOR:

**Dr. B.S. Tomar**, did his M.Sc. (Chemistry) from Garhwal University in 1979. After completing the one year orientation course of BARC Training School he joined the Radiochemistry Division, BARC in 1982. He completed his PhD in "Nuclear fission of actinides" from Mumbai University in 1990. He worked in the areas of Nuclear and Radiochemistry in general and Nuclear Fission, Heavy ion reactions, Actinide speciation, Ion Beam analysis, Perturbed angular correlation and Non-destructive assay of nuclear materials, in particular. He has published more than 210 papers in peer reviewed international journals. He taught Nuclear and Radiochemistry to the trainees of BARC training school for more than 25 years since 1985. He was a PhD guide of Mumbai University till 2019. He served as Dean Academic (BARC) Chemical Sciences, Homi Bhabha National Institute (HBNI) and Convenor, Board of Studies, Chemical Sciences, HBNI. So far, 16 students have received their PhD degree from Mumbai University and HBNI under his supervision.

**Dr. Tomar** was a visiting Professor to the Technical University Delft, Netherlands during 2007-2008 and a member of Standing Advisory Group on Safeguards Implementation (SAGSI) of International Atomic Energy Agency during 2016-2017. He served as Chairman of Radiation Technology Application committee (RTAC) of the Board of Research in Nuclear Sciences (BRNS) during 2016-2018 and as President of Indian Association of Nuclear Chemists and Allied Scientists (IANCAS) during 2018-2021.

**Dr. Tomar** superannuated from BARC as Director, Radiochemistry and Isotope Group (RC&IG) in December 2017. Post superannuation he served as Raja Ramanna Fellow, DAE and Institute Chair Professor, HBNI during 2018-2021.

### MODULE PLAN:

1. Radioactivity, Nuclear Decay and Nuclear Models-Module 1 - 1 Lecture
2. Nuclear Reactions and Production of Radioisotopes - 6 Lecture