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## Laser mass spectrometry – in nuclear applications

**M Joseph**

Indira Gandhi Centre for Atomic Research, India

Laser coupled with mass spectrometer finds many applications in various fields. In laser mass spectrometry (LMS), the laser pulse is used for different purposes such as, ionization in a gas phase (multi-photon ionization) or desorption and ionization from a surface of a thin film or a slurry (matrix assisted laser desorption, ionization) or for vaporization from a solid phase (laser-induced vaporization studies), laser ablation etc. In this talk, some of the laser-mass spectrometric techniques that are used in nuclear applications - such as burn-up measurements, isotopic ratio measurements, vapor pressure measurements at ultra high temperatures, pulsed laser deposition coupled with thermal ionization and laser ablation coupled with ICP-MS etc., that are carried out in our laboratory, will be discussed.

smj@igcar.gov.in