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Matrix-Assisted Laser Desorption/Ionization-Time of Flight Mass Spectrometry

National Cancer Institute

Source

National Cancer Institute. *Matrix-Assisted Laser Desorption/Ionization-Time of Flight Mass Spectrometry*. NCI Thesaurus. Code C19935.

In MALDI-TOF, a laser pulse is fired into a protein or peptide sample contained in a light-absorbing matrix. A small explosion vaporizes and ionizes the sample. In the presence of a high electric field, peptide ions are accelerated down an evacuated flight tube. Because large particles travel more slowly than small ones, the masses of the ionized particles are determined by measuring their arrival time at the end of the tube