

Bruker Ultraflexreme MALDI-TOF

Bernal Bio Labs



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The Bernal Biolabs host the latest industry standard MALDI TOF mass spectrometry system from Bruker, the Ultraflexreme. This piece of instrumentation was funded by a Science Foundation of Ireland (SFI) infrastructure grant to Dr. Sarah Hudson and was installed in 2018. The Ultraflexreme has a range of capabilities from conventional proteomic analyses to MALDI MS imaging and the analysis of small molecules and polymers. The Ultraflexreme combines true 2 kHz speed (TOF) and 1 kHz (TOF-TOF) with a 10-bit digitiser for enhanced dynamic range and flexibility. This compliments biopharmaceutical research, proteomics research and applied applications.

- Industry leading Top-Down protein sequencing (compatible with Compass solution)
- High definition MALDI Imaging data acquisition combined with SCiLS lab software (coming soon).
- Non biased polymer analysis with Bruker's Polytools software, for single click polymer distributions (coming soon).
- Analysis of proteins, peptides and other biomolecules with Bruker's Biotools package.
- MS/MS sequencing with a Mascot server database for protein/peptide identification. Proteins can be identified with high confidence with unmatched ease.
- Broadband mass resolving power (up to 40,000), 1 ppm mass accuracy, MS/MS data sets can be acquired with up to 1000 Hz laser repetition rate from low fmol levels.
- Laser focus diameters down to 10 μm for high spatial resolution imaging.