

AUTOFLEX SPEED MALDI-TOF/TOF MS INFORMATION (May 2012)

Department für Chemie, Universität für Bodenkultur

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Basics: The Bruker Autoflex Speed is a high-resolution matrix-assisted laser desorption-ionisation time-of-flight mass spectrometer suitable for the analysis of, e.g., glycans, peptides, tryptic peptide mapping, whole proteins and oligonucleotides in both positive and negative modes. It can be used also for fragmentation (MS/MS) via laser-induced (LID) or collision-induced dissociation (CID).

It can be used by postdocs, doctoral students, university assistants/ professors and technicians who, after instruction, are performing MALDI-TOF on a regular basis (e.g., weekly or 25-30 samples monthly). Occasional use is rather to be performed as a service by qualified personnel.

Location: This departmental machine is in level U1 of the TZM (Muthgasse 11) shared with two mass spectrometers of the EQ-VIBT Cellular Analysis platform.

Samples: The MALDI-TOF MS can be used to measure m/z values of a wide range of analytes. In general picomole amounts are more than sufficient.

Usage: At least one day beforehand, a time-slot is reserved using the gmail system maldivibt@gmail.com (the password is given to approved users). Samples should be applied onto a suitable MALDI target supplied by Bruker. *The key for the room, the target frame and calibrants are collected from Dr. Wilson's laboratory (3rd floor, TZM) upon prior notification.* Any errors should be noted in the log-book and reported immediately (see telephone numbers above). Full guidelines are given upon instruction.

Prioritisation:

1. Research and teaching-associated activities of the Department of Chemistry;
2. Research and teaching-associated activities of other VIBT departments;
3. Analyses for external academic and commercial partners.

Software: The licensed Flexanalysis software for analysing the acquired data is on the computer controlling the mass spectrometer and on some computers in the Abteilung für Biochemie.

Excel tables can be extracted for remote interpretation using proteomics/glycomics tools.

Practical classes: Samples (e.g., tryptic peptide maps) resulting from student practicals can be analysed using the MALDI-TOF MS; contact Dr. Iain Wilson well in advance.

Costs: The department must recover costs from users in order to fund service, repair and parts.

In case of *potential interest* in using the machine and for further details on all the above points contact Dr. Iain Wilson.