

Sample Preparation Protocol for Alternative Ionisation Accurate Mass Service

(white Excel spreadsheet with MSS numbers for submission)

The service is established for the samples that cannot be ionised by electrospray ionisation technique (ESI) used in the Open Access MS systems and HR ESI service. If your analyte compounds have acidic or basic functional groups and are soluble in water or volatile organic solvents, please try them first on one of the Open Access MS systems following the sample preparation protocol for OA MS. Organic salts can also be analysed by ESI in most cases with separate mass spectra for positive and negative counterions. If the structure of your compound indicates that it is not amenable to ESI, *e.g.*, it is nonpolar, you can submit it directly to Alternative Ionisation service. If you are not sure, please contact the member of staff responsible.

Currently, alternative ionisation techniques in MS Facility comprise: atmospheric pressure chemical ionisation (**APCI**), electron impact ionisation (**EI**) and matrix-assisted laser desorption & ionisation (**MALDI**). If you are aware of which of these methods is the best for your samples, please indicate that on the sample submission form.

You can submit either neat samples, or samples in solution. Please use standard mass spec vials for your submission. Final preparation of samples for alternative ionisation will include solution phase. **Please indicate which solvents your samples can be dissolved in on the submission form.** We regret that due to the persistent problem with ion source contamination **we cannot accept solid samples in sealed tubes**. Please put such samples in solution at the concentration 10-100 µg/mL using the glove box before submission.

If your samples are not stable and should be run immediately after preparation, please discuss this with us first and we should be able to arrange a time slot to run your samples.

It is also all right to submit your samples using the same protocol as for open access and high-resolution ESI submission, provided that you use standard Mass Spec vials and comply with concentration limits. This can happen when you tried your samples on open access systems and could not detect your ions.

In all cases the potential hazards associated with your compound has to be put in the submission form.