

# HIGH- RESOLUTION MASS SPECTROMETER FACILITY

## ❖ Introduction

WATERS - XEVO G2-XS-QToF High-Resolution Mass Spectrometer (HRMS) could analyze the samples like solid and liquid samples. This instrument combines the physical separation capabilities of liquid chromatography (UPLC) with the mass analysis capabilities of Mass spectrometry. UPLC-MS is widely used for identification and quantification of molecules while the UPLC-MS/MS-tandem mass spectrometry utilizes the fragmentation of the molecules to identify the structure of the molecules. **MS<sup>E</sup>** delivers accurate mass precursor and fragment ion data for every detectable component. It is equipped with ESI, APCI and Unispray ion sources, direct injection, coupled with Waters Acquity H Class UPLC having quaternary pump, flow rates 0.05-5 ml/min and a PDA detector. It consists of quadrupole and time of flight mass spectrometry, mass range of 4000 *amu* in quadrupole and 20000 *amu* in ToF.

## ❖ Facilities in HRMS

- ❖ Direct -ESI of purified samples
- ❖ HRMS-ESI +ve /-ve mode
- ❖ HRMS-APCI +ve /-ve mode
- ❖ HRMS-UNISPRAY +ve /-ve mode
- ❖ HRMS-MS +ve / -ve mode
- ❖ LC-HRMS +ve /- ve mode
- ❖ LC-HRMS/MS +ve /- ve mode

## Contact Details

HRMS facility,  
SAS, CDMM Building,  
VIT, Vellore-632 014  
Tamil Nadu, India  
Email : [mschemistry@vit.ac.in](mailto:mschemistry@vit.ac.in)  
Landline: 0416-2202048



## Applications of HRMS

- ❖ For scientists who need to identify, quantify and confirm the broadest range of compounds in the most complex and challenging samples.
- ❖ Maximum robustness with no compromise in performance
- ❖ Class-leading real-world quantitative sensitivity
- ❖ Highest quality, most comprehensive qualitative information
- ❖ Flexibility to adapt to changing needs
- ❖ Accessible to experts and non-experts alike

## MODE OF PAYMENT

Mode of payment only through online by using the following link.

<https://labpayments.vit.ac.in/HRMSLab/>

## Faculty In-Charge:

**Dr. D. Prabhakaran,**  
Professor, Department of Chemistry  
School of Advanced Sciences (SAS) VIT, Vellore,  
TN-632014,  
Landline: 0416-2202048  
Email : [prabhakaran.d@vit.ac.in](mailto:prabhakaran.d@vit.ac.in)