

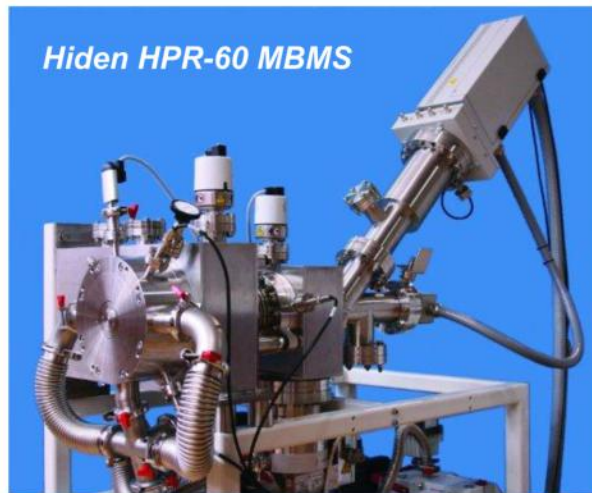


instruments for advanced science



Molecular Beam Mass Spectrometer for Reactive Process Monitoring

The Hiden HPR-60 Mass Spectrometer is a research tool conceived specifically for direct analysis of ions, radicals and neutral species in reactive processes, and will be of interest to researchers in the fields of plasma and transient chemistry, reaction kinetics, catalytic processes. The system typically operates in pressure regimes from 5 mbar to 5 bar, and mass spectrometer options provide for measurement of neutrals, positive ions, negative ions and ion energies, with choice of mass range up to 2500 amu.



Hiden HPR-60 system with EQP plasma ion monitor

The system samples direct from the process using a sequence of up to three pressure reduction stages with intermediate aligned beam skimmer cones, providing a sampling range from 5 mbar to 100 mbar for the two-stage system and to 5 bar with the third stage. The configuration forms a supersonic molecular beam for direct, near collision-free transfer of sampled species direct to the UHV-operating mass spectrometer. The potential of each skimmer stage can be independently biased to enhance beam focussing and transmission of ionised species.

An integrated molecular beam chopper is available as a system option for automated simultaneous acquisition of foreground/background data, enabling real time display of the molecular beam intensity with instantaneous subtraction of the beam background signal. Vacuum system operation is fully automated and systems are provided with integral over-pressure protection. A custom-engineering service is available for design of any required system-to-process interface.

For further information on this or other Hiden Analytical products contact Hiden Analytical Inc. at info@hideninc.com or visit the main website at www.HidenInc.com