

New Product Information

SIMS Analysers for Surface Characterisation

Secondary ion mass spectrometry (SIMS) is a versatile, highly sensitive technique for compositional analysis of surfaces from the atomic layer level to profiles through depths over 100's of nanometres. The technique utilises surface probing by a beam of energetic ions to displace and ionise surface atoms for acquisition and identification of both positive and negative secondary ions by mass spectrometry.

The extended range of Hidden SIMS Workstations incorporates instruments for fundamental research through to automated quality control applications with integrated load lock, sample manipulation and multi-specimen sample carriers. The quadrupole SIMS detector and ion/electron source elements are additionally separately available to enable upgrading of existing surface analysis tools with the SIMS technique. All system elements are totally UHV compatible and feature the Hidden dual-mode MAXIM mass spectrometer operating in the secondary ion detection mode for positive/negative ion detection and in the secondary neutral (SNMS) detection mode for positive data quantification. Mass range options extend to 5000 amu.



The fine-focus Hidden IG-20 gas-source ion gun generates both oxygen and noble gas ion beams with spot size down to 50 micron. The IG-5C ion gun, with the Hidden caesium surface ionisation source for analysis of electronegative species, has a spot size of just 20 micron. The EG-500 electron gun provides charge neutralisation of insulating surfaces.

The MASsoft Professional SIMS PC data system enables full control of the mass spectrometer, the ion gun operating parameters and the ion beam raster area and scan rate, with acquired data presented in real time. The ESM LabVIEW SIMS Imaging program acquires, stores and displays the data for presentation in the form of elemental surface maps with both 2D and 3D view capabilities.

For full details on this or any other Hidden Products contact Hidden Analytical at info@hidden.co.uk or visit the main website at www.HiddenAnalytical.com.

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