

New Product Information

Analysis of retained hydrogen/helium in metals

The degree of retention of hydrogen and helium in metals is of significant importance in diverse applications including hydrogen embrittlement quantification, tritium retention measurement in fusion reactor wall tiles, solar panel quality control. The Hiden TPD Workstation was developed specifically for such applications by providing temperature programmed desorption measurement (thermal desorption analysis) at ultra-high vacuum (UHV) with integrated analysis and quantification of desorbed gases by quadrupole mass spectrometry.



***Hiden TPD Analyser for
Thermally-Evolved Gas Measurement***

Sample heating is by a fully programmable temperature regime operating from 50°C to 1000°C. Sample specimens are typically disk segments of 1-2 sq.cm area, the vacuum sample load lock permitting sample placement and replacement without loss of UHV vacuum integrity. Sample transfer and manipulator mechanisms enable sample placement directly onto the heater stage, with the mechanisms then withdrawn to inhibit heating of the sample support structures and consequent unmerited gas desorption.

The Hiden quadrupole mass spectrometer probe is mounted directly above the sample surface to optimise desorbed gas detection, the fast digital detection system providing accurate data recording through rapid gas evolution events. A water cooled shroud prevents radiant heating of the quadrupole probe structure.

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

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