

## Process, Research & Environmental Mass Spectrometers

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### **TGA Applications**

Mass Spectrometer System For TGA/DSC Applications

### **ThermaSys**

From ESS Ltd

ThermaSys from ESS sets the benchmark in real-time monitoring of Thermogravimetric and Evolved Gas Analysis applications. Specifically designed for TGA-DSC applications, this system benefits from years of research and listening to customer requirements. ThermaSys offers the ultimate in performance within a space-saving compact cabinet, allowing the system to be positioned next to the TGA apparatus, while the flexibility of Ethernet connection gives the user the ability to operate the system over a local area connection (LAN).

Due to the ultra-fast response time of 120mS, coupled with low detection levels, the complete process is measured, ensuring that no events are missed, offering a significant improvement over other techniques as improved control can be immediately implemented, thus maximising the information produced during the run.

ThermaSys instruments can provide two types of analysis and control, these are direct feedback monitoring and control of gas phase composition or a calibrated continuous record of the entire gas phase. Equipped with Analogue inputs as standard, Gas composition changes can be plotted on the same screen as the temperature and weight loss.

Supplied with a specially designed high temperature capillary inlet as standard, its ultra-fast response time can track even the fastest of change in conditions, which can often be vital when determining the temperature of product release.

The high sensitivity dual detector Quadrupole Mass Spectrometer (QMS) of ThermaSys offers a broad dynamic range, with detection capability from low ppb/ppm right up to high percentage levels.

With full software control of the vacuum system, all operating parameters can be adjusted directly from the PC.



#### **ESS Ltd**

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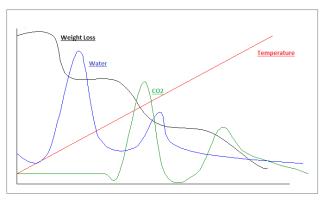
## **ThermaSys**

### ThermaSys is the instrument of choice for:

- Thermogravimetric analysis
- DSC applications
- Material sublimation / desorption
- Oxidation and reduction
- Loss of volatiles
- Materials characterisation

### This system has been designed specifically for TGA-DSC applications, and users can benefit from:

- High Temperature Capillary inlet as standard (20ml/ min standard, 'low flow' option of 10ml/min optional)
- Analogue inputs to record parameters such as weight loss/ temperature on the same screen as gas composition
- Integrated stop/start with TGA software
- Simultaneous monitoring of furnace temperature
- Ability to send data 'live' into other programs data can be immediately exported into other formats
   e.g. TGA software
- Fast response time with a response time of 120mS, true real time monitoring of the process is achieved
- Oil free vacuum system Hyrdrocarbon free system ensures no interferences, with minimal maintenance required
- Autofrack



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