MDS-8

SINEO新仪

CLOSED VESSEL MICROWAVE CHEMISTRY WORKSTATION

Sineo Microwave Chemistry Technology (China) Co., Ltd. is a leading developer and manufacturer of microwave chemistry instrument in China. Founded in 1994, Sineo has over a decade's experience in developing professional microwave chemistry labstation. As a new generation of the closed vessel microwave chemistry labstation, MDS-8 has equipped with the advanced piezo crystal pressure sensor and optical fiber temperature sensor (or optional Pt temperature sensor). It can process up to 10 samples simultaneously for applications like acid digestion, microwave extraction and synthesis.

OUTSTANDING FEATURES

- Advanced continuous non-pulse microwave heating technology enables microwave power to be adjusted automatically by the changes of pressure and temperature inside vessels. With this technology, MDS-8 can accurately control the changes of pressure and temperature inside vessels and can display both reaction data and accumulating curves of pressure and temperature.
- Advanced piezo crystal pressure sensor and optical fiber temperature sensor ensure precise detection and control of reaction parameters.
- Uniquely designed closed vessel has embodied easy handling and excess pressure relief (through safety membrane) functions, as well as high throughput (up to 10 samples simultaneously) features.
- Double-buffered anti-blast chamber door built with ingenious mechanism system would be activated to release pressure caused by a sudden vigorous reaction, guarantee the operator's safety in any accident situation.
- Professionally designed homogeneous microwave distribution cavity, coated with multi-layer anticorrosion coatings, ensures equality and repeatability of all digested samples in a run.
- All vessels (including main control vessel) can be cooled down outside chamber to speed up cooling process, moreover, to expedite the turnover of microwave chamber.
- Robust framework and double layer reaction vessels adopt TFM material for inner vessels and PEEK material for outer vessels.

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Technical Data

- Piezo crystal sensor monitors and controls pressure up to 8MPa (1200psi) in a reference vessel.
- Advanced temperature sensors (Optical fiber or Pt thermowell) monitor and control temperature up to 250℃ in a reference vessel.
- Maximum 1200W microwave power, dynamically adjusted by the reaction temperature and pressure feedbacks, is able to provide continuous non-pulse microwave heating.
- Maximum sustainable pressure 8MPa (1200psi), maximum sustainable temperature 300℃, 100ml volume for each vessel, up to 10 vessels in a run. Material of inner vessel: TFM or PTFE, outer vessel: PEEK

Configuration	MDS-8 Model A	MDS-8 Model B	MDS-8 Model C
Piezo crystal pressure sensor	●	●	●
Optical fiber temperature sensor			●
Pt temperature sensor	●	●	
Double-buffered and anti-blast microwave oven door	●	●	●
Material of Inner vessel	PTFE	TFM	TFM
Material of Outer vessel	PEEK	PEEK	PEEK

● Standard Configuration

MP-100 Frame Structure High Pressure Closed Vessel

- **Maximum sustainable pressure: 8MPa (1200psi)**
- **Maximum sustainable temperature: 300℃**
- **Maximum working temperature: 250℃**
- **Volume: 100ml**
- **Vessel quantity: 10**

● Data is tested with TFM inner vessel