

ADVANCE MICROWAVE DIGESTION SYSTEM



Advance Microwave Digestion System - ToronMD™-2400

Advance Microwave Digestion System - ToronMD™-2400 is designed for fast, complete sample decomposition with low reagent consumption and reduced loss of volatile elements. It uses mid-infrared, non-contact temperature monitoring that scans all vessels in real time, supporting high-throughput workflows and consistent digestion quality.

Built for demanding labs, Advance Microwave Digestion System combines bottom-fed microwave delivery for more uniform energy distribution with multiple safety protections and smart controls. It supports large-batch processing and is suitable for many lab conditions where repeatable digestion and safer operation matter.

APPLICATIONS

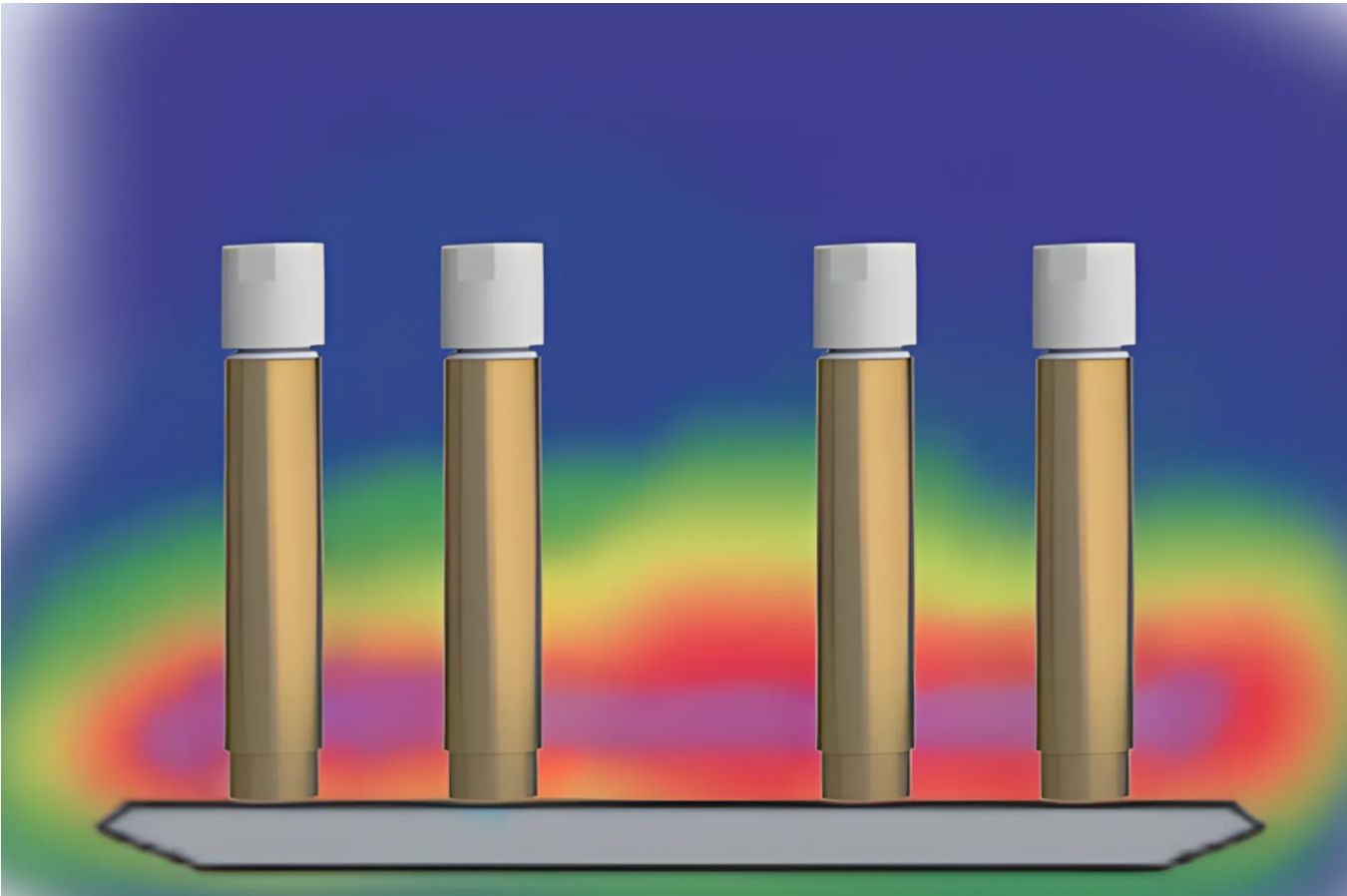
Advance Microwave Digestion System - ToronMD™-2400 Applications

This Advance Microwave Digestion System supports digestion workflows across a wide range of sample types and industries, including: food, environmental monitoring, agriculture, pharmaceuticals, cosmetics, textiles, geology, metallurgy, plastics, coal/petrochemical, biomedicine, and battery manufacturing.

Common use cases in real labs include:

- Trace element preparation for ICP-OES/ICP-MS/AAS: Produces clearer digests and helps reduce matrix effects before instrumental analysis. Environmental sample digestion: Soil, sludge, sediments, wastewater solids, and other tough matrices where complete decomposition improves data confidence.
- Food and agricultural product compliance testing: Prepares complex organics for metals screening and contamination studies.

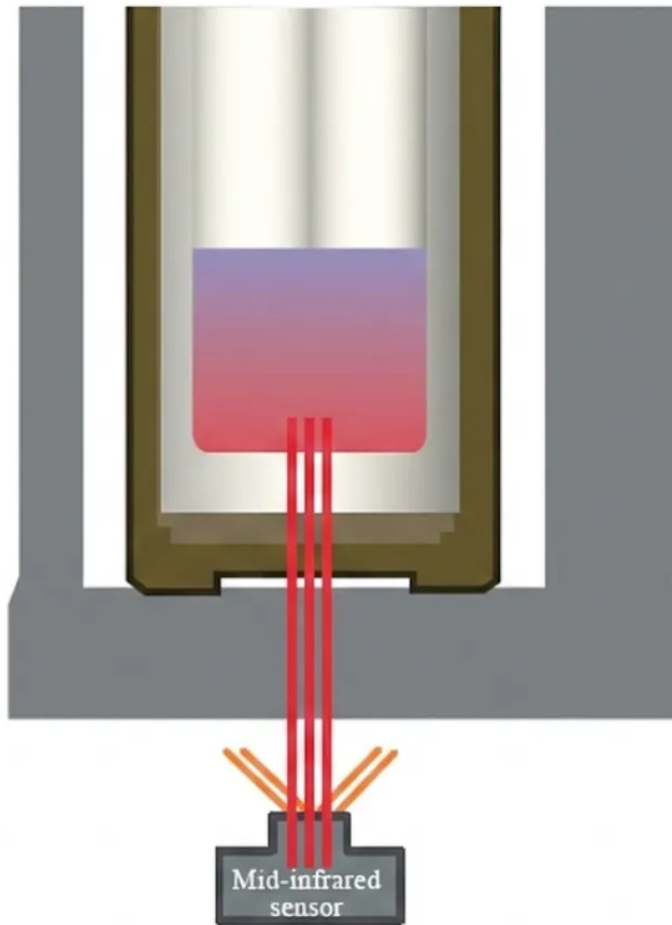
- Battery materials and advanced materials R&D: Supports digestion of challenging materials used in manufacturing and development workflows.
- Metals, alloys, petrochemical, and polymers: Helps handle difficult matrices where temperature/pressure control and safety protections are important.



FEATURES

Advance Microwave Digestion System - ToronMD™ -2400 Key Features

- Mid-infrared, non-contact temperature monitoring: Scans and monitors actual vessel temperature in real time and displays curves for process visibility.
- Bottom-fed microwave delivery: Concentrates microwave energy in the sample area for more uniform and effective heating across multi-circle sample layouts.
- High-throughput batch capability: Supports simultaneous digestion of high-pressure and high-throughput samples for busy labs.
- Non-contact pressure monitoring: Tracks real-time pressure for all reacting vessels with on-screen pressure change display.
- Comprehensive safety protection: Explosion-proof cylinder chamber, high-strength aluminum alloy cover, and mechanical/electronic door locks for safer large-batch digestion.
- Smart operation and method management: Touchscreen control with real-time parameter/status display and storage for extensive digestion method parameters.
- High chemical resistance chamber design: 316L stainless steel furnace chamber with corrosion-resistant inner coating for durability in harsh digestion environments.



- Mid-infrared wavelength light capable of penetrating the vessels
- Other wavelengths of light radiated from the surface of vessels

TECHNICAL SPECIFICATIONS

Advance Microwave Digestion System - ToronMD™ -2400 Technical Specifications

Specification	Details	
Sample Capacity	42	16
Digestion vessel	High-throughput, 75mL	High-pressure, 100mL
Microwave Output Power	2400 W	
Microwave Frequency	2450 MHz	
Vessel Capacity	High-throughput rotor: 42 positions	
Cavity Volume	75 L	
Temperature Measurement	Mid-infrared contactless sensor	
Pressure Monitoring	Full-vessel, non-contact pressure monitoring	
Control System	Full touchscreen control	
Safety Protection	Multiple protections; mechanical + electronic door lock	
Voltage	220-240 V, 50/60 Hz (110V is also available)	
Dimension	650 x 630 x 620 mm	
Input Power	3000 W	



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