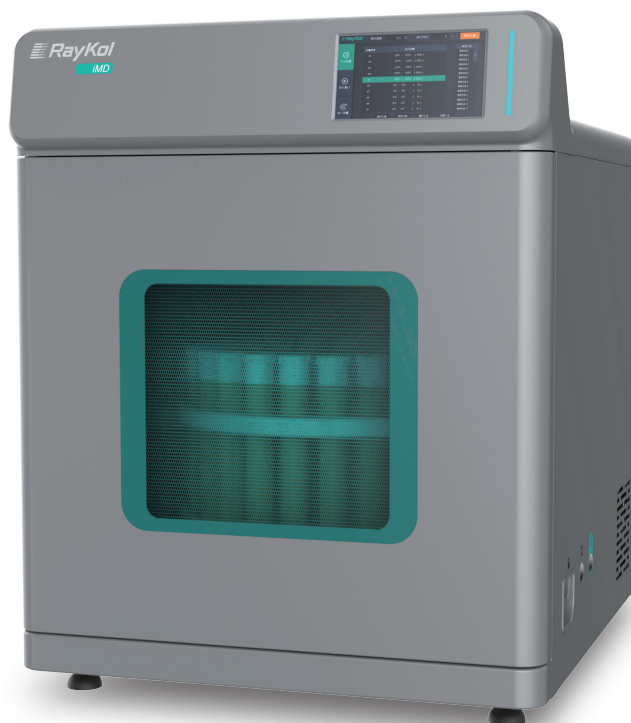


# iMD Series

## Microwave Digestion System

High Digestion Efficiency | Multiple Safety Protection | Wide Application Range



Microwave digestion utilizes the penetrability and activation reaction ability of microwave to heat the reagents and samples in the sealed container, so it can increase the pressure in the sample preparation container and the reaction temperature. Under microwave and sealed high temperature conditions, the samples can be quickly digested. The technology is mainly used for sample

pretreatment of AAS, AFS, ICP, ICP-MS.

RayKol iMD series microwave digestion system is a microwave digestion instrument suitable for laboratories and various environments. Efficient and convenient design and the adoption of multiple safety measures will provide customers with more secure and safer products.

## Advantage of microwave digestion

Faster  
reaction speed

+

Less reagent  
consumption

+

Short  
digestion time

+

High recovery  
rate of elements

+

Less  
environmental  
pollution

## High efficiency and convenient design

### Power of instrument

The system can continuously and automatically control its output power, to achieve rapid heating and shorten sample processing time.

### Microwave output mode

It is transmitted using non-pulse continuous high-energy microwave field and double magnetrons, which can increase the uniformity of microwave in the cavity and the energy utilization rate while maintaining the microwave energy level.

### Furnace cavity exhaust system

High-power corrosion-resistant vortex centrifugal fan and turbulent high-efficient air cooling system design are utilized for sample rapid cooling.

### Quantity of sample

Standard batch microwave digestion system, it can heat up 24 to 40 samples on the same run under same condition.

### Sample loading method

Humanized sample loading method can reduce the workload of lab technicians.

### Graphical interface

Graphical interface provides user-friendly and intuitive software interface.





## Multiple safety protection

### Material of digestion vessel

The material of vessel insert is imported modified Teflon TFM and the vessel material is modified engineering plastics, consequently it has high resistance in high temperature, high pressure, acid, alkali and organic solvents to guarantee high safety factor.

### Material of cavity

The cavity construction is 316 thick stainless steel with multi layer Teflon PFA coatings, which enhances the cavity resistance of impact and corrosion, consequently extends the service life and improve safety of the instrument.

### Mid-infrared temperature measurement system

The advanced mid-infrared temperature measurement technology is introduced and utilizes to detect and monitor real-time temperature of the digesting samples from the bottom of the vessel without any external sensor, to ensure the safety operation of the instrument.

### Design of double-layer explosion-proof door

The explosion-proof safety door with double-layer metal structure and electronic-mechanical control are used to ensure safety.

### Automatic decompression device

The digestion vessel can be automatically decompressed using shrapnel when the pressure is reaching to warning level, then continues to maintain the status, to ensure safety of the instrument.

### Monitoring device for abnormal state

It can sense the abnormality inside the cavity in order to preventing accidents.

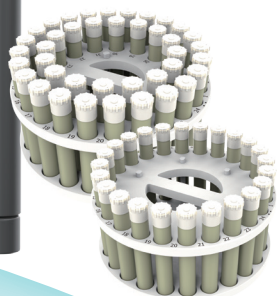
## Application field

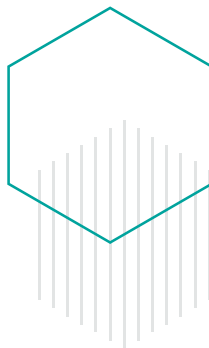
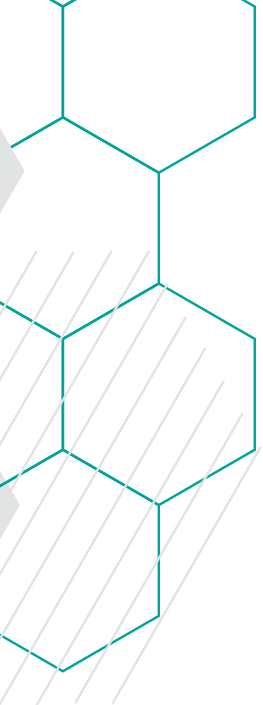


Food, environmental monitoring, agricultural products, pharmaceuticals, cosmetics, textiles, geology, metallurgy, plastics, coal, petrochemical industry, biomedicine, battery manufacturing and other fields

### Application Examples

- GB 5009.12-2017 National Food Safety Standard Determination of Lead in Foods
- GB 5009.17-2014 National Food Safety Standard Determination of Total Mercury and Organic Mercury in Foods
- GB 5009.268-2016 National Food Safety Standard Determination of Multi-elements in Food
- HJ 491-2009 Determination of Total Chromium in Soil Optical Splitting Spectrophotometry of Flame Atom Absorption
- HJ 678-2013 Water Quality Digestion of Total Metal Microwave Digestion Method
- HJ 680-2013 Soil and Sediment Determination of Mercury, Arsenic, Selenium, Bismuth and Antimony Microwave digestion/Atomic fluorescence method
- HJ 832-2017 Soil and Sediment Digestion of Total Metal Elements Microwave Digestion Method





RayKol Group  
Add: Unit 6F, NO.176Xinfeng Road, HuizhiZone, Torch  
High-tech Zone, Xiamen  
Tel: +8605925800190  
Mail: [info@raykol-us.com](mailto:info@raykol-us.com)  
<http://www.raykol-us.com>