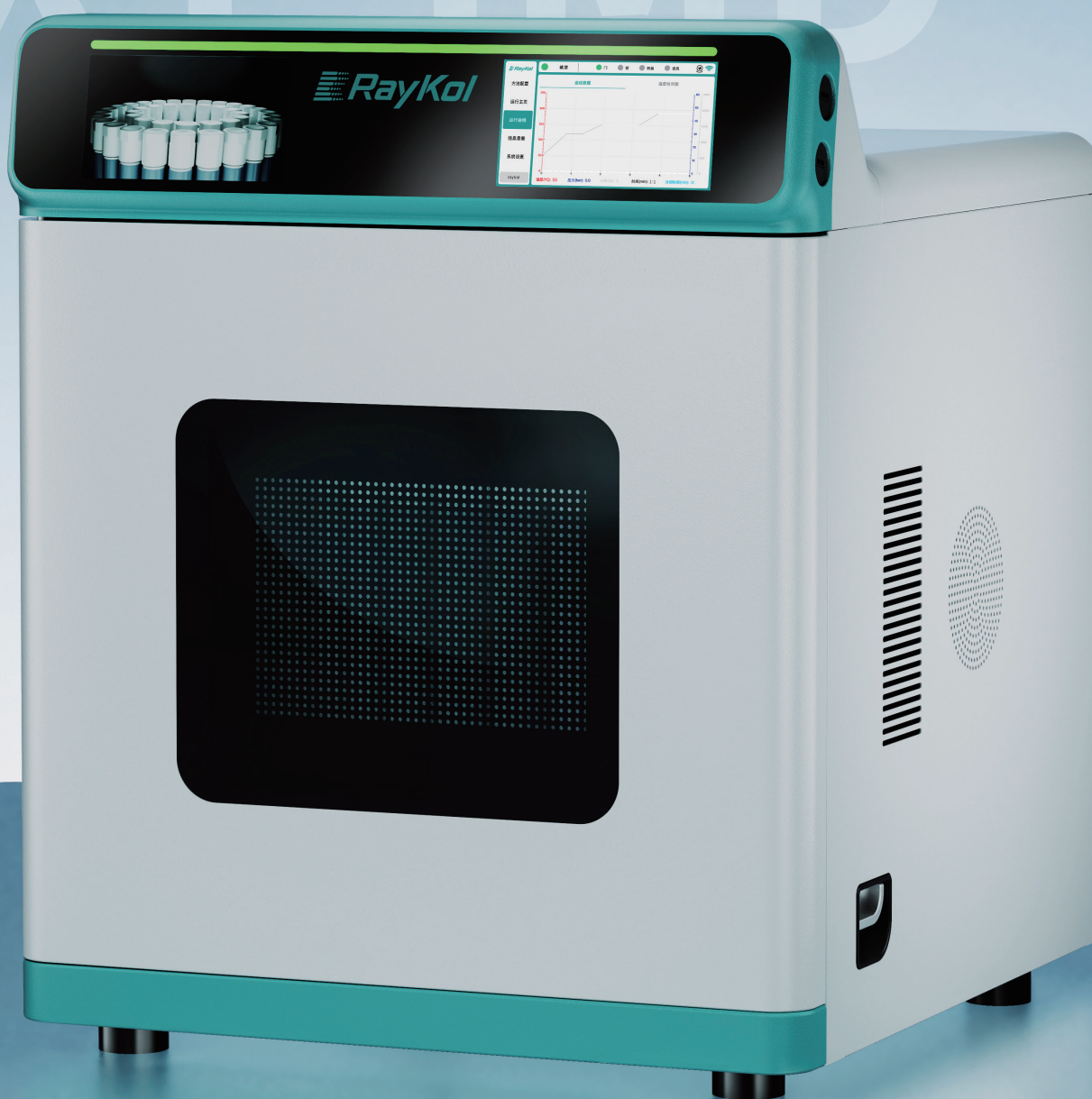


XT-iMD Microwave Digestion System

RayKol-XTrust has over 20 years of extensive experience in the field of sample preparation. XT-iMD Microwave Digestion Systems feature up to 10 active and passive safety protection functions. Equipped with a specialized mid-infrared non-contact temperature sensor that can penetrate TFM, the system enables real-time scanning and display of the actual temperature of each sample solution. The non-contact full-vessel pressure control system, utilizing high-precision optical distance measurement, allows real-time scanning and display of the actual pressure of each digestion vessel. This ensures optimal digestion efficiency for a wide range of sample types in the most convenient and efficient manner.



Expert-Professional Microwave Digestion System

High-efficient & Rapid

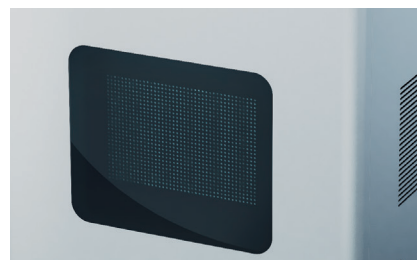
Easy and user-friendly design to steam workflow

Microwave control: microwave focusing, large-power microwave feeding

Energy consumption management: optimized operation parameter, to maximum usage

Sample loading: easy to assemble vessels and load samples

Compatible with various vessels: able to process max. 42 samples once



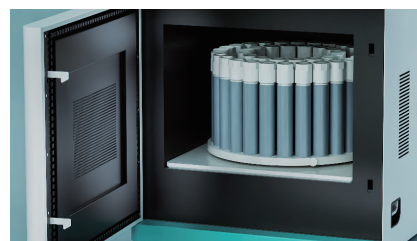
Safe & Reliable

Multiple safety protection

Active and passive protection: to ensure safe operation, with smart reminder

Door and lock mechanism: high-strength explosion-proof door, pressure release when side open

Anti-corrosive ventilation: multi-layers for corrosion resistance, efficient ventilation, rapid cooling



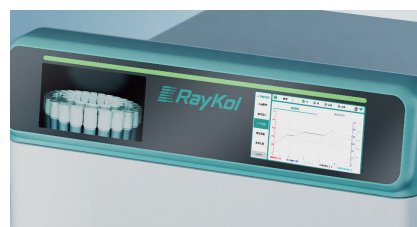
Precise Monitoring

Sample status monitoring, to ensure efficient digestion for reliable data

Mid-infrared temperature monitoring: scan and display actual temperature for all sample solutions in real time

Pressure monitoring: real-time monitor the pressure of samples

Parameter display: real-time display sample temperature, power, process during digestion



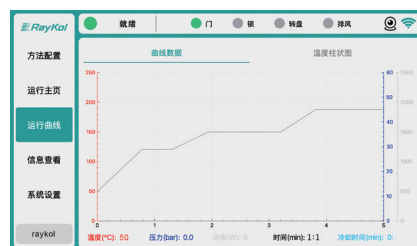
Smart & Convenient

Intuitive user interface, easy to use

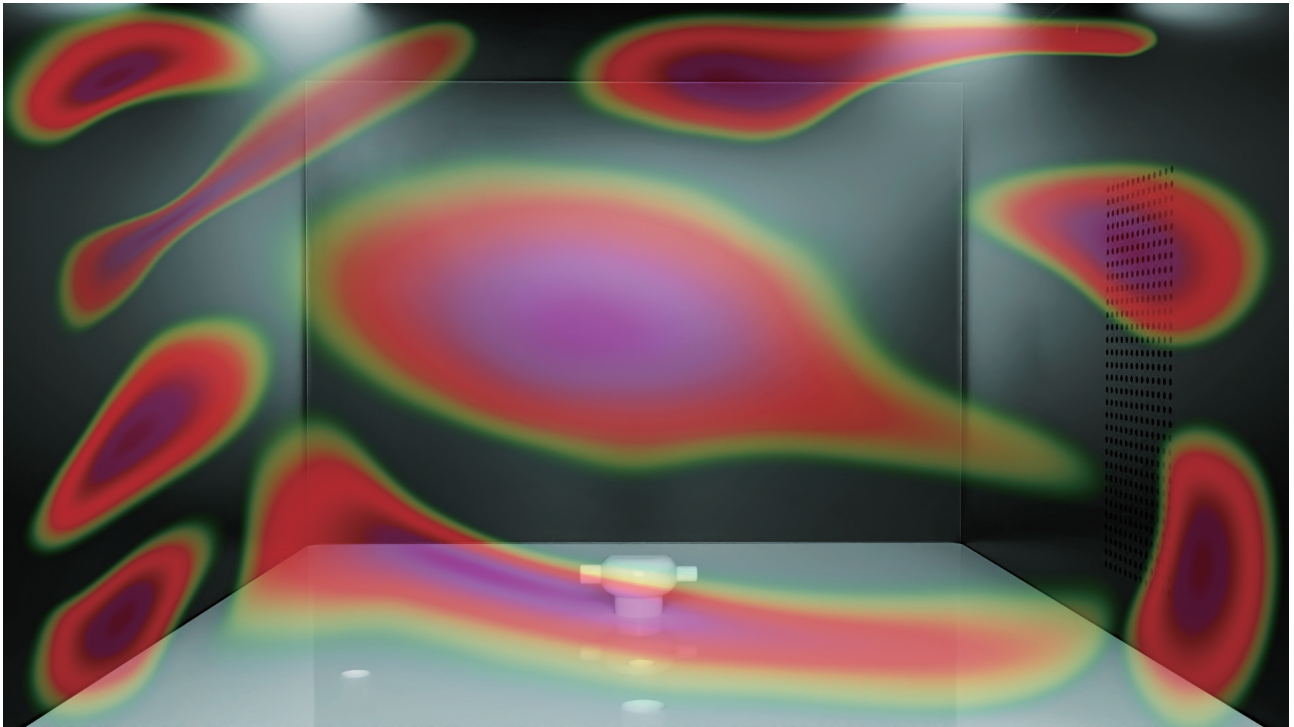
Method setting: flexible in setting digestion method, easy to access

Smart detection: sensor to detect rotor type and vessel amount

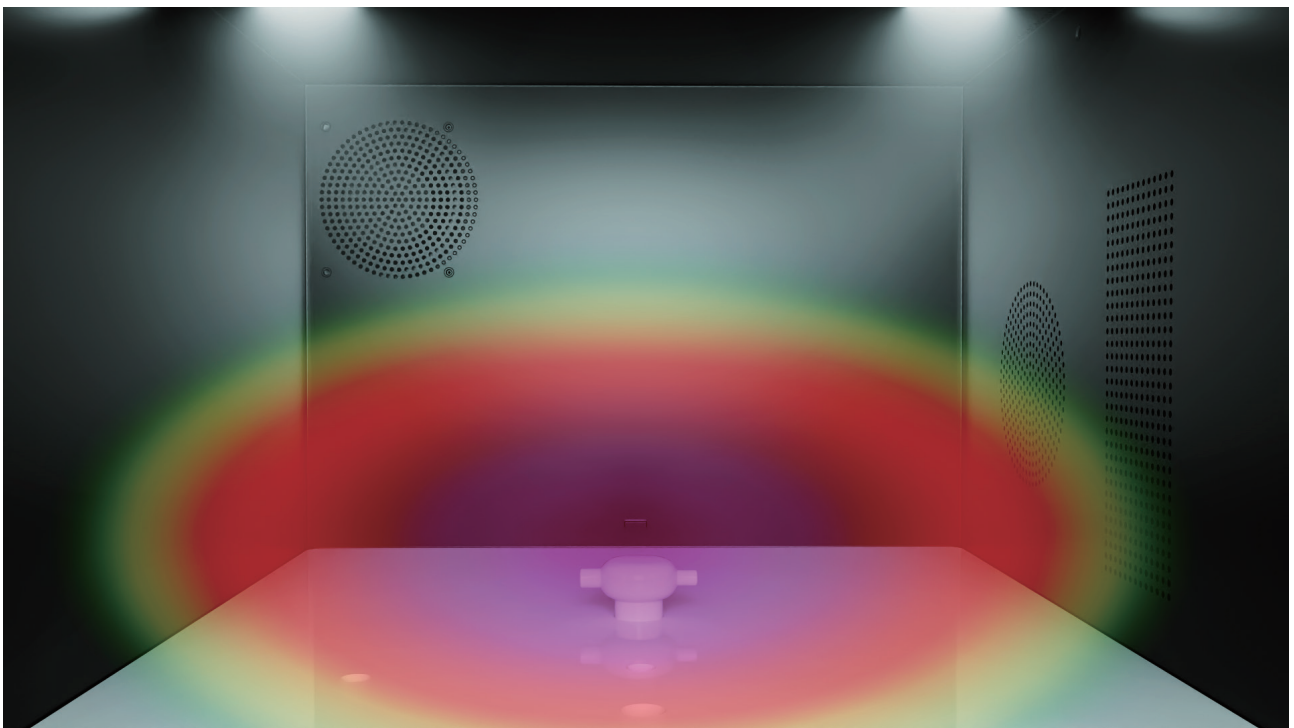
Light indicator: able to observe equipment status remotely



Unique Microwave Focusing Technology



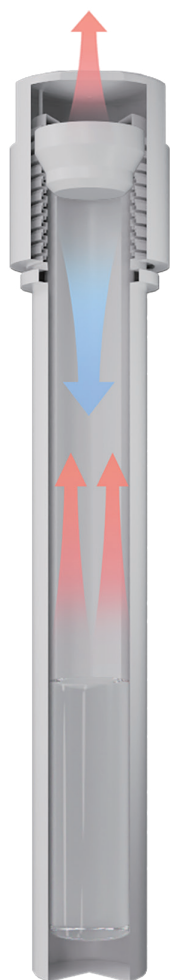
Schematic Diagram of Microwave Field Intensity Distribution of a Conventional Microwave Digestion System



Schematic Diagram of Microwave Field Intensity Distribution Using Microwave Focusing Technology

High-precision Smart Pressure Monitoring Mechanism

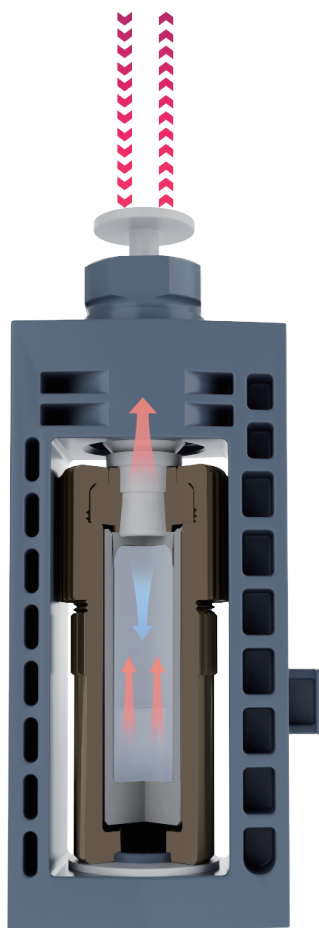
High-precision smart pressure monitoring mechanism, to ensure safety for all digestion vessels.



High-throughput Digestion Vessel

- Automatic pressure-release mechanism to ensure reliable release of overpressure reaction gases
- Pressure generated during the reaction is limited by the smart overpressure release structure
- Consists of only three parts, easily assembled without any tools
- Suitable for digesting various types of samples, including food, wastewater, soil, biological, agricultural, and pharmaceutical samples
- 42-position rotor, ideal for handling large sample batches

Top-mounted Optical Sensor



High-pressure Digestion Vessel

- Real-time pressure display for each digestion vessel through a high-precision optical distance measurement system
- Pressure generated during the reaction is limited by the smart overpressure release structure
- Higher performance, capable of handling more complex samples such as alloys, ceramics, cosmetics, ores, compounds, and chemicals
- Supporting frame design ensures safe operation at the highest temperature and pressure

High-precision Real-time Temperature Feedback Technology

The mid-infrared temperature measurement system utilizes the ability to penetrate the vessel walls, while materials like TFM do not absorb mid-infrared radiation. This allows for non-contact, real-time dynamic measurement of the temperature inside the vessel, enabling highly precise and reliable temperature monitoring of each sample.

It is the first to leverage the unique property of mid-infrared wavelengths that can penetrate the vessel material, achieving non-contact, real-time scanning and monitoring of the actual temperature inside all vessels.

