



Microwave Chemistry · Sample Pretreatment



**PREEKEM**

**Sample Pretreatment · General Catalog**

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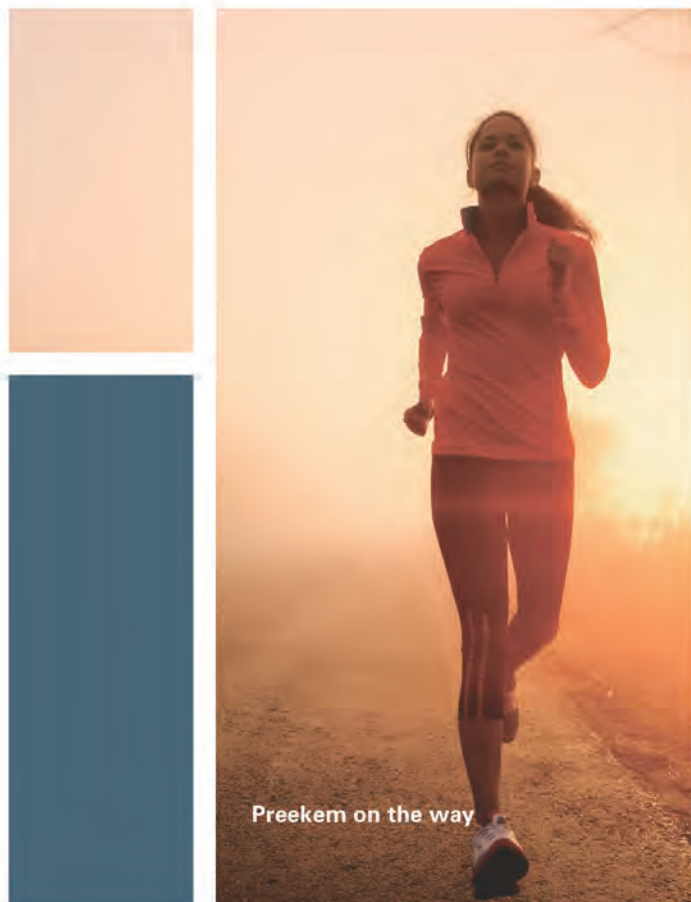
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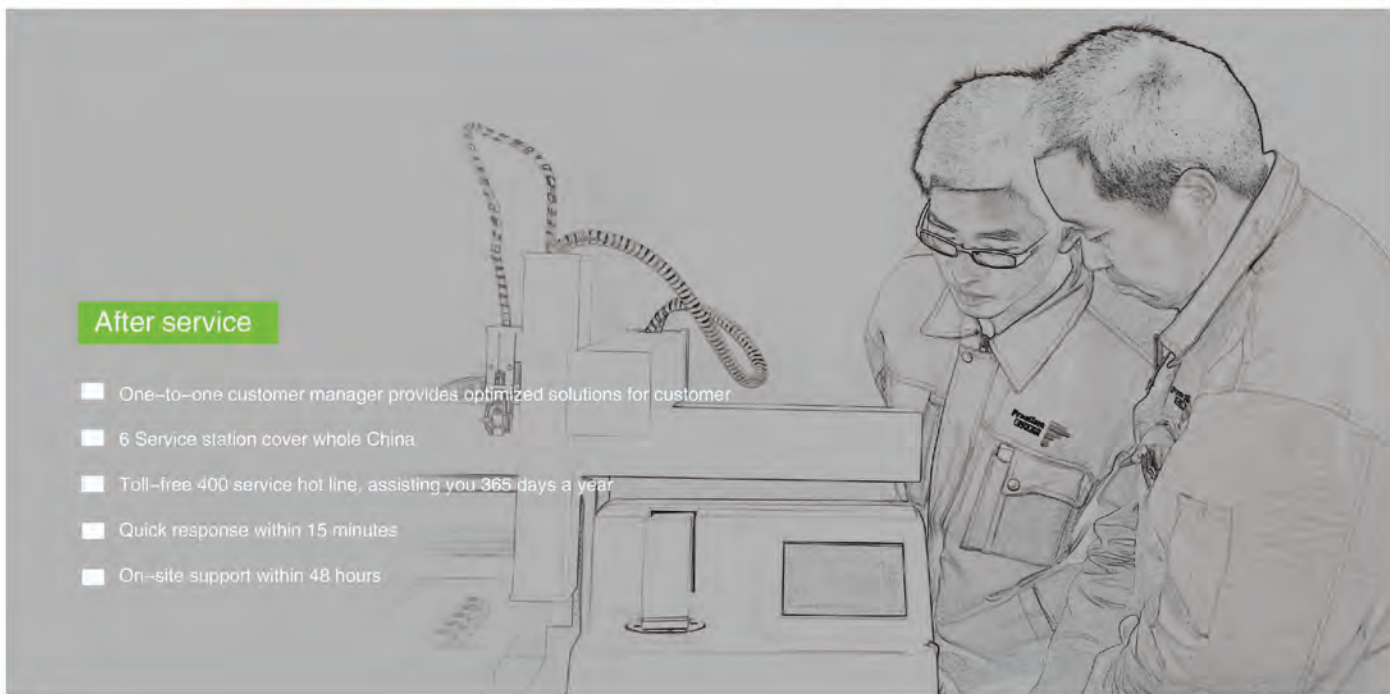
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**SIMPLER PROCESS, EASIER WORK**



### Corporate Development History

- 2014-2017: Win over national fund for laboratory equipment R&D
- 2013: Introduced EXTRA—Automatic SPE
- 2012: Introduced TOPEX—Microwave digester
- 2011: Introduced NOVA2S+VOCA—Automatic Microwave synthesizer
- 2010: Introduced SUPEX—Touch screen Microwave digester
- 2009: Introduced RAPTOR—Touch screen Furnace
- 2008: Introduced NOVA—First single mode Microwave synthesizer
- 2005: Introduced WX-8000 & EXCEL—Best seller in China
- 2001: Introduced WX-2000—First Microwave digester with temperature and pressure control
- 2000: Preekem Scientific Instrument Co., Ltd was founded



### After service

- One-to-one customer manager provides optimized solutions for customer
- 6 Service station cover whole China
- Toll-free 400 service hot line, assisting you 365 days a year
- Quick response within 15 minutes
- On-site support within 48 hours

### SIMPLER PROCESS, EASIER WORK



**Jeff Ni**  
CEO, Preekem Scientific Instruments Co., Ltd

Dear customers and colleagues:

Thanks to your support and trust, Preekem has successfully entered its 18th year of operation.

I am very pleased that Preekem has gained a stable team with special know-how and professional ethics throughout R&D, Sales, Manufacture and After Service departments in the past decade. The most important is that the whole team shares the same vision and has continually achieved amazing accomplishments, which established Preekem as the leading player in sample pretreatment area.

Preekem was founded in 2000 and started its business from microwave digestion. We firstly launched WX-2000, an in-house microwave digestion system, in 2001. With the conception of innovation, Preekem constantly developed microwave synthesizer, microwave extraction and microwave moisture analyzer. As organic sample took up a large quantity as well, Preekem enriched its product line with Automatic SPE, GPC and Evaporation system in 2015. In 2017, Preekem brought the innovative breakthrough—PREPS fully automated microwave digestion system into market. PREPS, contrary to the traditional microwave digestion system, it streamlines the acid adding, sample transfer etc, manual steps into automatic process.

As a growing company, Preekem pays more attention to innovation, quality and service rather than cut-throat competition. Looking back to the past 18 years, we gradually adopted advanced Supply Chain Management, Total Quality Management System, consequently realized 'Zero Inventory' management. In pace with growing reputation of Stabilization and Quality, Preekem has won increasing attention from oversea customers. Now we have expanded our business to United States, Republic of Korea, Germany, Australia, Italy and Russia.

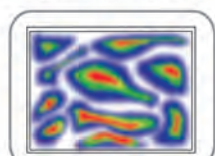
Today, I would like to thank the whole team and our customers, who are standing shoulder to shoulder with me from beginning till now. Preekem always tries the best to be more innovative, to respect every suggestion from the end user, to give out tailor-made solutions and to win up our value. That's the way Preekem builds up a world-renowned enterprise.

*Jeff Ni*  
2017.12

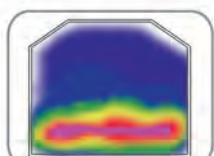
## TOPEX+ Microwave Digestion System

### Enhanced Microwave Focusing

- Focused microwave energy on the sample
- Homogenous microwave field
- High microwave efficiency



Microwave in Plain Cavity



Microwave in TOPEX+ Cavity

### Control & Monitoring

- Remote observation of vessels & sensors is available through the built in video camera
- All operations are easily performed via touch screen

### Safety by Design

- Dual temperature & pressure control
- Electronic door lock
- Cavity 316L stainless steel construction

### Genuine Expert in Microwave Extraction

- High efficiency: 40 parallel samples in 30 minutes
- More convenience: need only 2 steps to assemble a 100mL extraction vessel
- More safety: solvent sensor secure better experience
- Higher recovery: Magnetic stirrer ensures better results

### Multiple Application Modules

- Digestion
- Extraction
- Synthesis
- Desiccation
- Oxygen Combustion
- Protein Hydrolysis

### Total Solution for Pharmaceutical Industry

- Comply with 21CFR PART 11
- Possess user management interface, E signature and data provenance function
- Complete 3Q Audit Trail



GT-400



KJ-100



KJ-160

## PREPS Preekem Robot Enhanced Preparation station

### Automated Acid Distribution System

- X,Y,Z robot arm with  $\pm 0.01\text{mm}$  accuracy
- Three acid channels with injection pump
- Syringe spray and wash function to avoid cross contamination

### Innovative Single-mode Resonance Cavity

- Focus and maximize microwave energy
- High utilization and homogeneity of microwave energy
- Enhanced reliability and repeatability

### Reliable Safety System

- Contact free temperature and pressure control
- Voluntary and passive pressure relief system
- Advanced PID control system



## WX-6000 Microwave Digestion System

### User-friendly Operating System

- 5.6 inch color LCD screen
- Gradient designed touch panel, easy to use design
- Real time temperature and pressure control system
- Double safety lock protection design



## N1 Evaporation System

### Performance

- PID temperature control with  $\pm 1^\circ\text{C}$  accuracy
- Max 10 stored-in method for reference
- 28 unit tray and 50 unit tray as option
- Whole body stainless steel, solvent and acid proof



## NOVA-2S Microwave Synthesizer

### Focused Single Mode Microwave Technology

- Stationary waves single mode microwave output
- Microwave energy is more homogeneous and concentrate

### Safety Control System

- Pressure and temperature dual control
- When reaction starts, the cap will automatically seal and lock the vessel
- Unlock and decap: temperature  $\leq 70^{\circ}\text{C}$ , pressure  $\leq 0.1\text{MPa}$ , after reaction

### Software System

- High-frequency closed-loop feedback (PID) control
- Easy-to-use touch screen

### Quick Cooling System

- Special designed air-cool pipes
- Air compressor device (option)

### Automatic Sampling System (Option)

- Process up to 96 samples simultaneously (10 mL pressure vial)
- Process up to 64 samples simultaneously (30 mL pressure vial)



## FIEXI ONE GPC Cleanup System

### Functions

- Embedded dual plunger pump with small pulse, low noise and broad velocity range
- Compatible with constant-wavelength UV detector or variable-wavelength UV detector
- Different column in size for various applications
- Quota-sampling by injection valve
- Automatic switch between sample components and effluent without watch-over
- Automatic alert for empty mobile phase solvent
- USB port for data export and printer connection
- Maximum 48 method store up
- Smart in size and favorable mobility

### Applications



organo-chlorine pesticide



Phthalate



Pesticide residues &amp; Veterinary drug residue



Dioxin



## FLEXI Organic Sample Preparation Platform

### Automatic Sample Loading and Collection

- More than 72 sample units, maximum 6 sample racks
- Compatible with 250 mL eggplant shaped bottle

### On-line Concentration and Volumetric Module

- Water bath with vacuum system to concentrate the volume
- Laser sensor to trace final liquid volume
- Volumetric range: 0.5-5 mL

### Detector

- UV detector is applied with fixed wave length and variable wave length

### Interface

- Compatible with all Windows system
- Graphic interface, easy to use
- Final report with traceability for all process and data



## EXTRA Automated Solid Phase Extraction System

### Accurate

- The precision syringe pumps provide positive pressure to precisely control the volume and flow rate of solvents and samples

### Efficient

- Four samples are processed simultaneously with up to 8 solvents and 108 samples a batch

### Reliable

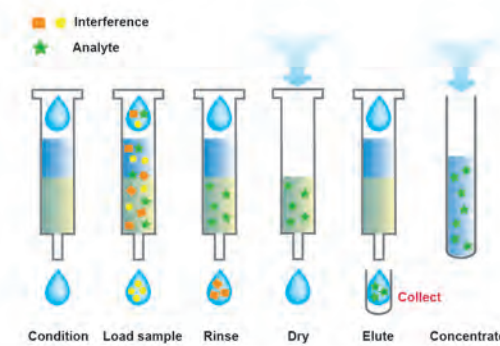
- Robust and durable industrial X, Y, Z three dimension robotic arms are mounted to offer high-precision control

### Intelligent

- Both PC and tablet are supported in the form of cable or wireless connection; Easy-to-use design with video monitoring



### Easy Setting



Full automation