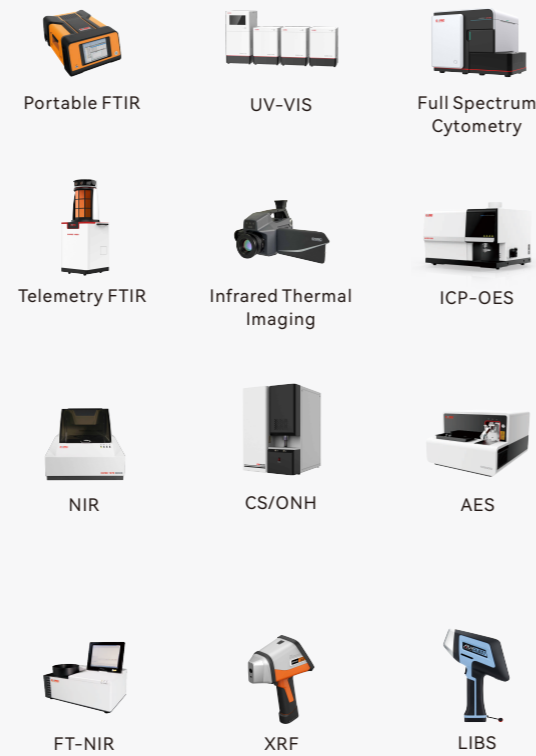


## Chromatography-mass Spectrometry



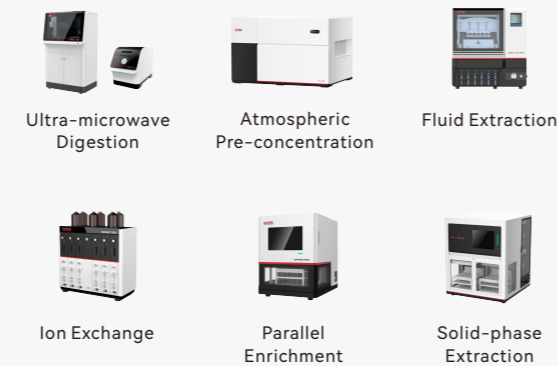
## Spectrometry



## Physical & Chemical



## Pre-treatment



# GC 2000 Gas Chromatograph

### Customer service hotline

400-700-2658

[www.expec-tech.com](http://www.expec-tech.com)

[puyu\\_service@fpi-inc.com](mailto:puyu_service@fpi-inc.com)

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2466 Science and Technology Avenue, Qingshan Lake, Lin'an District,  
Hangzhou City, Zhejiang Province



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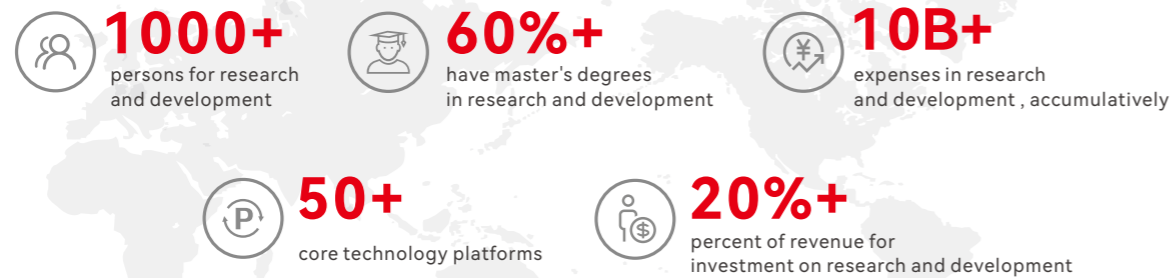
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— A member of Focused Photonics

# About EXPEC

Founded in 2015, and headquartered in Hangzhou, Zhejiang Province, Hangzhou EXPEC Technology Co., Ltd (EXPEC Technology) is a national high-tech enterprise focused on the R&D, industrialization, and innovative application of major scientific instruments. Through innovation, we aim to achieve automated and intelligent analysis, detection and monitoring in the field, grow into a world-leading maker of scientific instrument manufacturers and support China's aspiration to become a major player in the field of scientific instruments.

Our R&D team has adhered to "independent R&D, persistent innovation, and deep customization". After investing heavily in the R&D of major scientific instruments for more than 10 years, we have undertaken a large number of projects under the National Key R&D Program of the Ministry of Science and Technology, mastered the technologies for mass spectrum, chromatographic, spectrum, and physico-chemical analysis and detection, as well as technologies of pre-injection gas, liquid and solid processing, developed a series of industry-leading product mixes for laboratory analysis, field analysis (portable, online, mobile) and automated analysis, and provided global customers with all-round specialized scientific analysis solutions in fields such as advanced industry, environmental monitoring, medical diagnosis, life science, food, drugs and emergency safety.



**Qingshan Lake Innovation Base of EXPEC Technology**  
 Research-and-development and industrialization base for high-end scientific instruments (100 mu/130,000 square meters) Mass spectrometry instrument innovation center, key laboratory, post-doctoral research center

# Development history of gas chromatography

<p>Release of portable gas chromatograph-mass spectrometer</p>	<p>Release of first-generation GC 2000 Gas Chromatograph</p>	<p>Release of portable gas chromatograph</p>	<p>Release of domestically produced Explosion-proof-body gas chromatograph</p>	<p>Release of gas chromatograph-triple quadrupole mass spectrometer</p>	<p>Release of new-generation GC 2000 Gas Chromatograph</p>
<b>2010</b>	<b>2011</b>	<b>2014</b>	<b>2018</b>	<b>2020</b>	<b>2022</b>

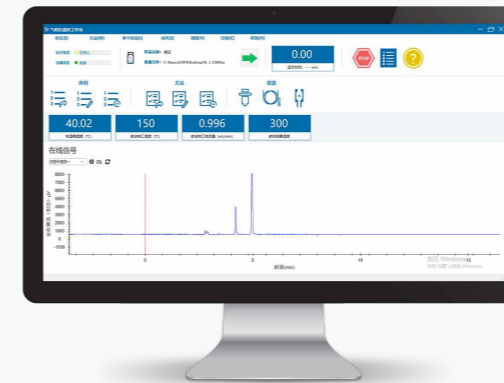
# GC 2000 – A best choice for laboratories

## A trustworthy partner

The new-generation GC2000 gas chromatograph is benchmarked against international leading brands, and the instrument adopts advanced electronic flow control, microfluidic plate control, high-precision independent temperature control and other technologies to meet the user's requirements for strong analytical capabilities and reliable stability.

## A smart application expert near you

The new-generation GC2000 has intelligent functions such as self-diagnosis, self-leak detection, self-saving of carrier gas, automatic reminders, etc., which help you easily grasp the instrument status and solve problems quickly. It can be matched with various pretreatment equipment such as solid phase microextraction, headspace, liquid sampler, etc. to meet your needs for more application expansion.



### > User-friendly workstation software

- The workstation software inherits the classic operation interface, and the users do not need to change their usage habits.
- The batch function can automatically perform statistical analysis on the sample data and draw sample trend charts.

### > Ultra-stable liquid injection port

- Fully electronic flow control is adopted with a self-diagnostic function and no need for manual soap leak detection, reducing the risk of system contamination.
- Optional injection ports with permanent ultra-deactivated surface treatment are available, which makes it easy for users to deal with the detection of strong adsorption and corrosive samples.



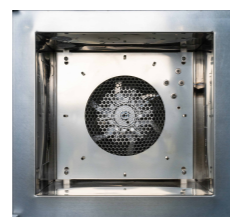
### > Ultra-high-precision electronic pressure controller (EPC)

- The EPC core is made of the ruby material, and the excellent pressure control performance is consistent all day long.
- The pressure control accuracy of the EPC can reach 0.001 psi.



### > World-class column oven

- Supporting up to 32-stage/33-platform temperature programs, and adapted to the most complex analysis methods
- Rapid equilibration of column temperature for minimal waiting time between analyses



### > Excellent human-computer interaction experience

- The Human-computer interaction APP is based on Android intelligent operating system, the interface is in Chinese, skeuomorphic graphic UI design is incorporated, and the monitoring content is clear at a glance.
- The 8-inch color screen display is ultra-large, the resolution is 1280\*720 (RGB), and the capacitive screen provides full touch operation.



### > Supporting multiple detector options (up to four at the same time)

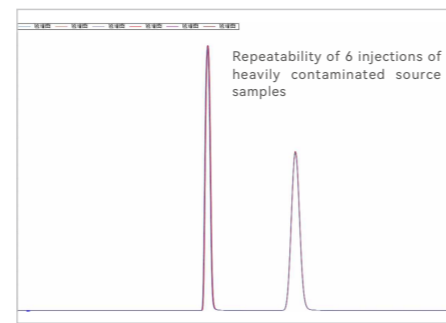
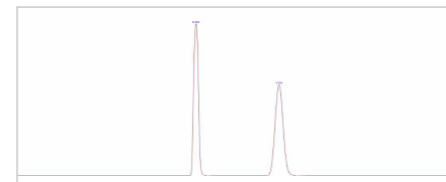
- Flame Ionization Detector (FID)
- Electron Capture Detector (ECD)
- Flame Photometric Detector (FPD)
- Thermal Conductivity Detector (TCD)
- Mass Selective Detector (MS)
- Triple Quadrupole Mass Spectrometer (MS/MS)

# Actual application example

## Environment and health

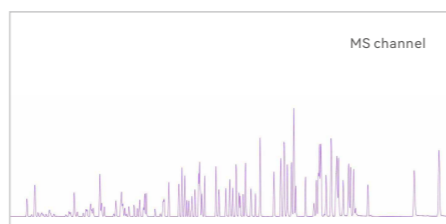
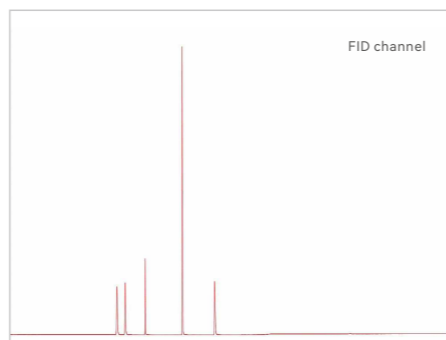
### NMTH analysis solutions

According to the HJ 604 and HJ 38 standards of the Ministry of Environmental Protection, a unique built-in self-priming sampling system, dual-channel single-FID detection, and post-run automatic reverse pipeline cleaning are adopted for the instrument, which is suitable for the determination of NMTHs in ambient air and waste gas from stationary pollution sources.



### VOC analysis solutions

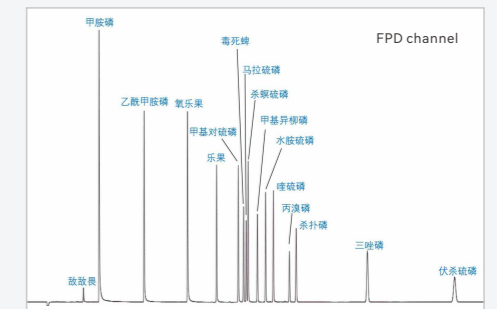
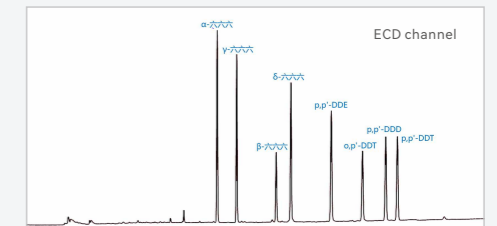
According to HJ 759 of the Ministry of Environmental Protection and related standards, 116 volatile organic compounds in the ambient air are determined using the atmospheric pre-concentration system for injection, double columns and heart cutting, and FID and MS dual channels for detection. This solution can achieve perfect cutting of low carbon components without oven cooling.



## Food safety

### Multi-residue analysis solutions for pesticides in vegetables and fruits

According to NY/T761 of the Ministry of Agriculture and related standards, the dual-tower liquid autosampler is used for sample injection, and FPD and ECD dual-column dual-channel detection is used to determine the multiple residues of organochlorine and organophosphorus pesticides in vegetables and fruits, which is an efficient solution to truly realize multiple purposes with a single instrument.



### Multiple pesticide residue analysis solutions for food

According to GB 23200.113, a triple quadrupole tandem mass spectrometer is used to analyze 208 pesticide residues and their metabolites in plant-derived foods. Ultra-deactivated flow paths, especially injection ports with ultra-deactivated surface treatment, keep chromatographic peaks of highly active organophosphorus pesticides still sharp and sensitive, and greatly reduce matrix effects of samples.

