

CHROMATOGRAPHY

1. GAS CHROMATOGRAPHY



2. GAS CHROMATOGRAPHY - MASS SPECTROMETRY

GAS
CHR

Branch

Model

Configu
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Appli
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catego
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- compounds
- Quantification of purity and impurities

G
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3. PYROLYSIS GAS CHROMATOGRAPHY - MASS SPECTROMETRY



4. AUTOMATED THERMAL DESORPTION GAS CHROMATOGRAPHY - MASS SPECTROMETRY

PYROLYSIS GAS

CHR

- MA

SPEC

Branch

Model

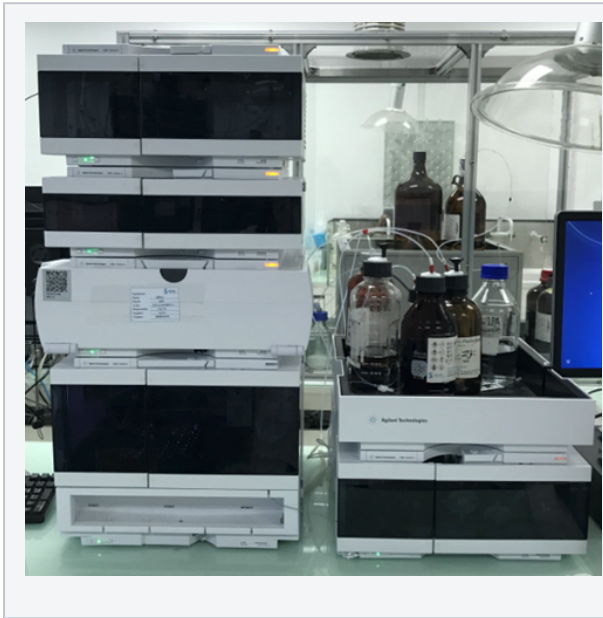
Configu
ration



- Injection System
- Multi-Shot Pyrolyzer
- Detector: FID, 5975C MS (EI & CI)

	Applica tion categor ies Chemical structure identification of polymers and additives
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5. LIQUID CHROMATOGRAPHY



6. ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

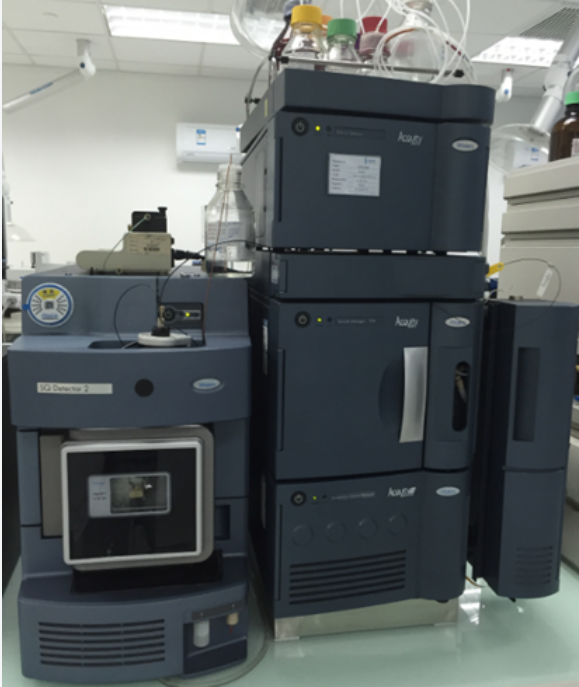
LIQUID CHROMATOGRAPHY			ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY	
Brand			Brand	Waters
Model			Model	H-Class
Configuration			Configuration	• C • C • A • U
Application categories			Application categories	• C • C • C • C

7. ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY-MASS SPECTROMETRY

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8. ULTRA PERFORMANCE CONVERGENCE CHROMATOGRAPHY - MASS SPECTROMETRY

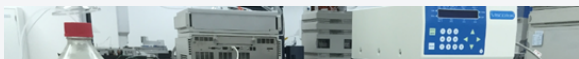
ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY- MASS SPECTROMETRY		
Brand	Waters	UI PI C C - M SI
		Br

	Model		Model
	Configuration		Configuration
	Applications		Applications

- Identification and quantification of trace (part-per-billion – part-per trillion) levels of compounds in complex sample matrices

9. ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY - HIGH RESOLUTION MASS SPECTROMETRY

10. GEL PERMEATION CHROMATOGRAPHY

HIGH RESOLUTION MASS SPECTROMETRY			GL CL
	ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY - HIGH RESOLUTION MASS SPECTROMETRY		Br Mo
	Brand	Waters	Co ura
	Model	H-Class Xevo G2XS Q-ToF	
	Configuration	• Ion source: ESI, ASAP, APCI, APPI • Mass detector: Single Quadrupole + Time-of-flight • Scan range: 50 -140,000 Da m/z	
			



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11. ION CHROMATOGRAPHY



ION CHROMATOGRAPHY

Brand

Dionex &
ThermoFisher

Model

ICS1000, ICS3000,
Intergrion

**Config
uration**

- Gradient quarterly pump
- Autosampler with 100-position tray
- Eluent generator
- Conductive detector

**Applic
ation
catego
ries**

- Determination of Anions: halogen ions, SO_4^{2-} , PO_4^{3-} , NO_3^- , ...
- Cations: Amine series, Na, K, Li, Mg, Ca, ...