

CHROMATOGRAPHY

1. GAS CHROMATOGRAPHY



2. GAS CHROMATOGRAPHY - MASS SPECTROMETRY

GAS
CHR

Branch

Model

Configu
ration

Appli
cation
catego
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- compounds
- Quantification of purity and impurities

G
C
-
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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

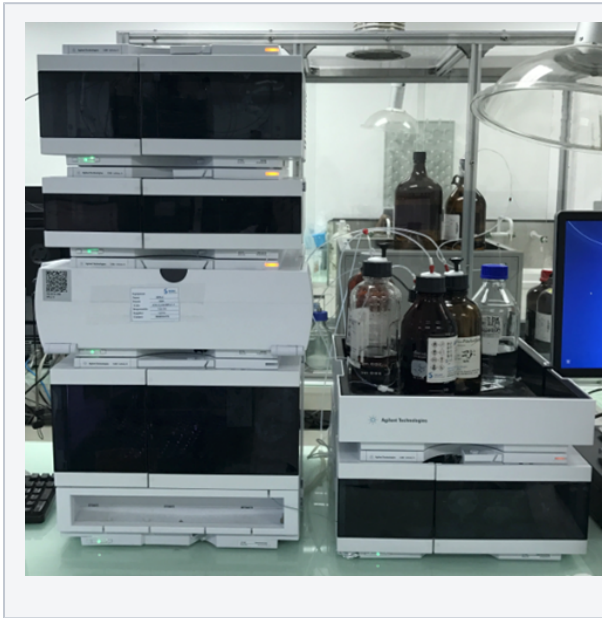
Configu
ration



- 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

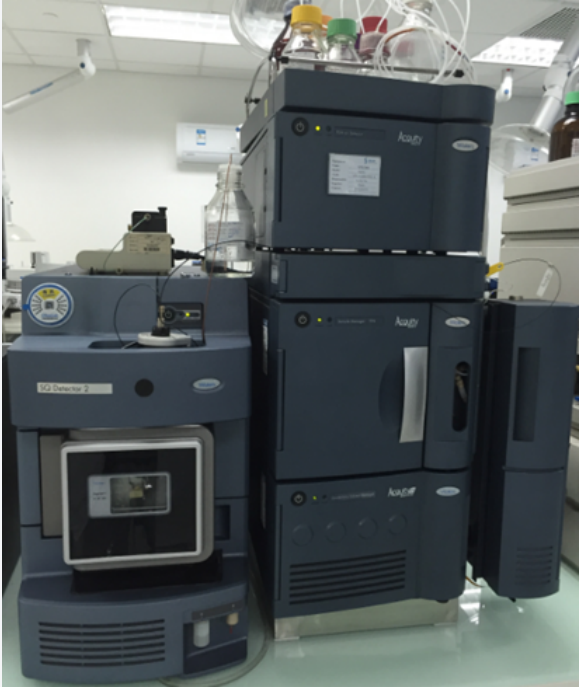
LIQUID CHROMATOGRAPHY			
Brand			
Model			
Configuration			
Application categories			
		ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY	
	Brand	Waters	
	Model	H-Class	
	Configuration	• C • C • A • L	
	Application categories	• C • q • C • C	

7. ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY-MASS SPECTROMETRY

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8. ULTRA PERFORMANCE CONVERGENCE CHROMATOGRAPHY - MASS SPECTROMETRY

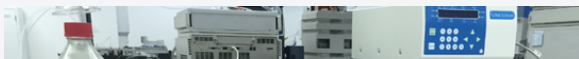
ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY- MASS SPECTROMETRY		UI PI C C - M SI
Brand	Waters	Br

	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 cat ego ries	• Determination of Anions: halogen ions, SO42-, PO43-, NO3-, ... - Cations: Amine series, Na, K, Li, Mg, Ca, ...