

# **LCMSMS - 3210**

## **Online Water Quality Monitor LCMSMS**



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

**Analytical Technologies Limited**

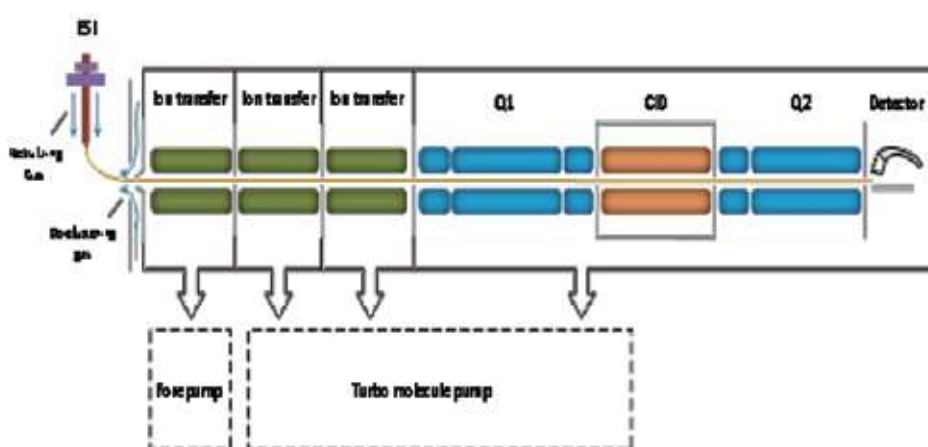
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## ►► Product Overview

Relying on the national major scientific instrument and equipment development project of the Ministry of Science and Technology and adopting a series of innovative mass spectrometry technologies, ATL developed the first triple quadrupole tandem mass spectrometer-LCMSMS 3210 with independent intellectual property.

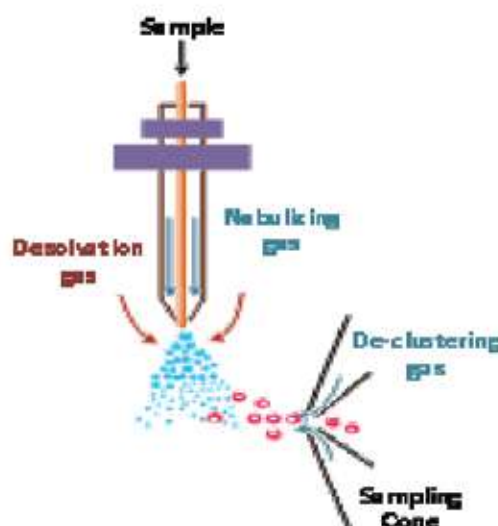
LCMSMS 3210 has high sensitivity, extraordinary stability, outstanding scalability and excellent cost performance. It can be widely used in environmental testing, medical testing and food safety etc.



## ►► Product Features

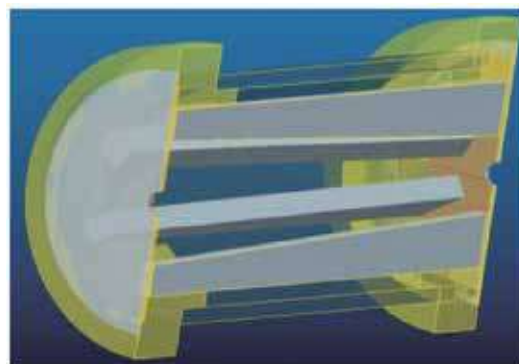
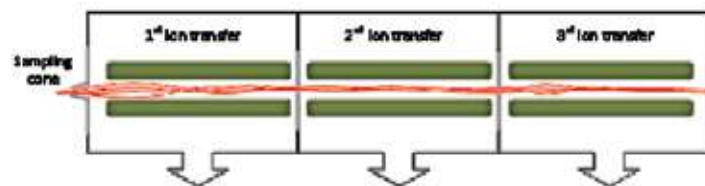
Effective Electrospray Ion Source

- Orthogonal vertical spray reduces direct spray contamination, prolongs maintenance period.
- Coaxial nebulizing gas, focusing nebulizer spray.
- Maximum desolvation gas temperature is up to 700°C, suitable for high flow rate of liquid chromatography.



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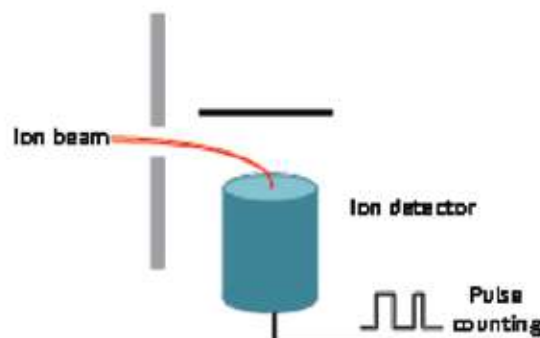


### Differential vacuum ion transport system

- Differential vacuum design, reduce ion transmission loss, get higher signal and lower limit of detection (LOD).
- Multiple quadrupole rod is used for ion transmission and accurate ion focusing.

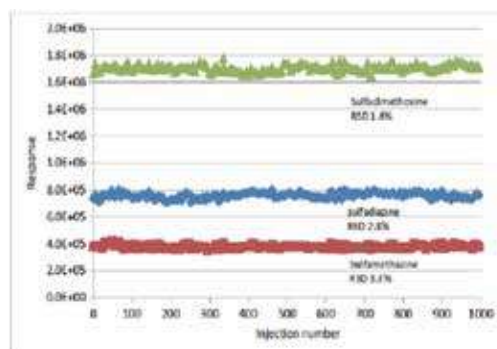
### Axial accelerated collision cell

- Eliminate the crosstalk between ion pairs, no memory effect.
- High-throughput analysis of nearly 100 compounds was performed by matched ultra-fast liquid chromatography



### Ultratrace signal detection

- Off-axis design, filter neutral particle noise.
- detection technology can improve signal noise ratio (SNR) more effectively and obtain better analysis results.



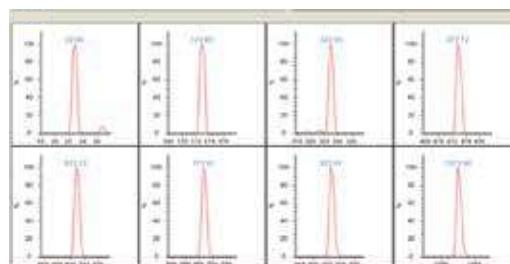
Excellent stability

- 1000 injections of 3 kinds of sulfonamides over 168 hours continual analysis, RSD< 4 %.

## ►► New Mass Expert Software

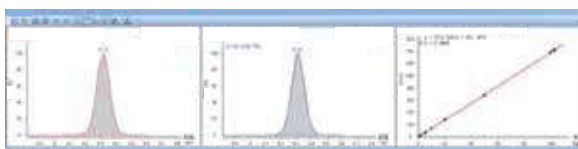
**Easy and simple to use**

- User-friendly interface
- Methods are optimized automatically to speed up the method development process



**Intelligent parameter optimization**

- One-click automatic tuning and mass calibration to reduce user difficulty
- Customizable parameter adjustment tools for advanced customers, meet specific experiments requirements



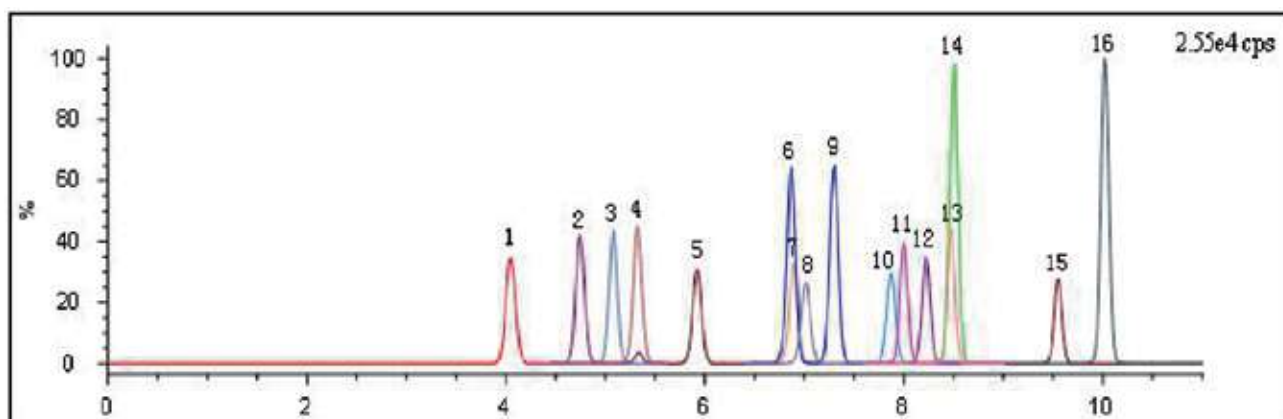
**Customizable application analysis software**

- Customizable software for environmental protection, medical diagnosis, food safety, online analysis etc

## ►► Applications

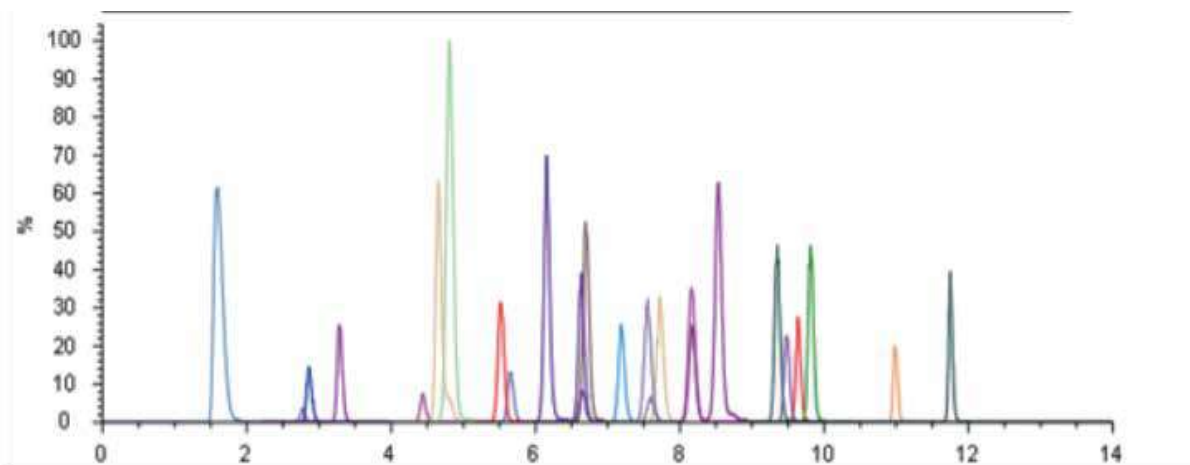
Case 1: The detection of sulfonamides in swine tissues

LCMSMS 3210 LOD is 2 orders of magnitude lower than the national standard GB/T 20759-2006. It can meet the requirements for the detection of 16 kinds of sulfonamides in swine tissues.



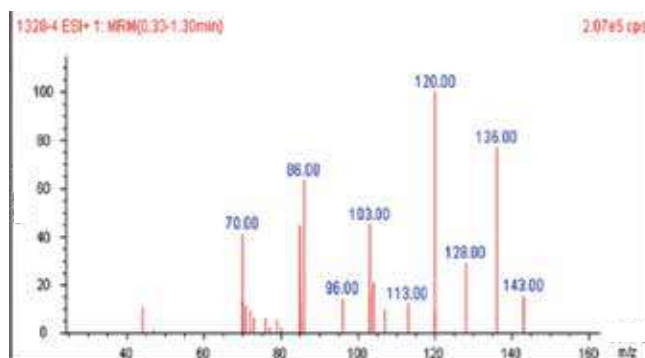
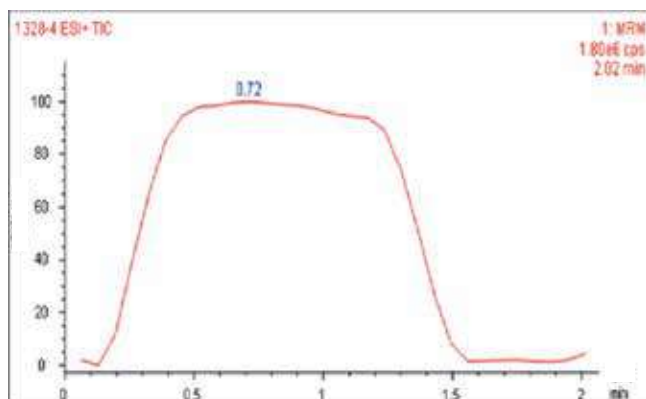
Case 2: Detection of carbamate pesticides in water

It has a strong ability to analyze trace multi-component pesticide residues in complex matrix of environmental water.



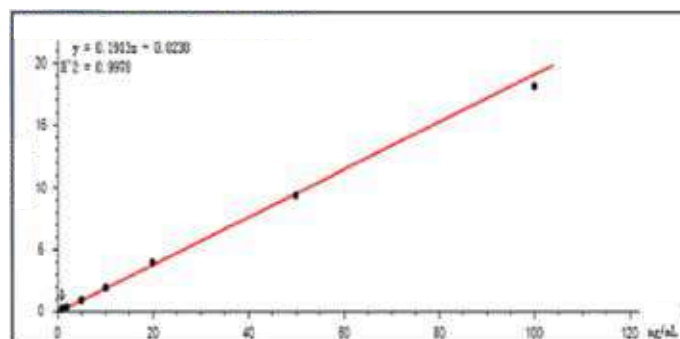
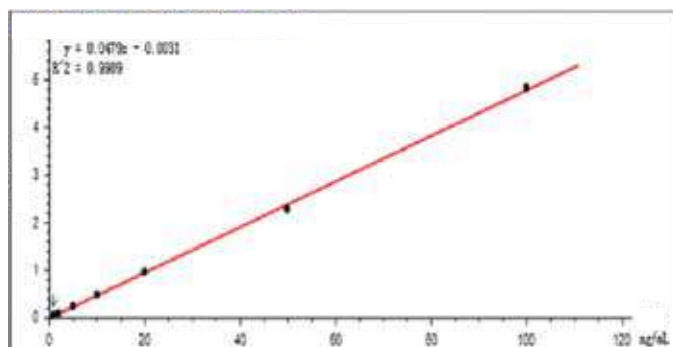
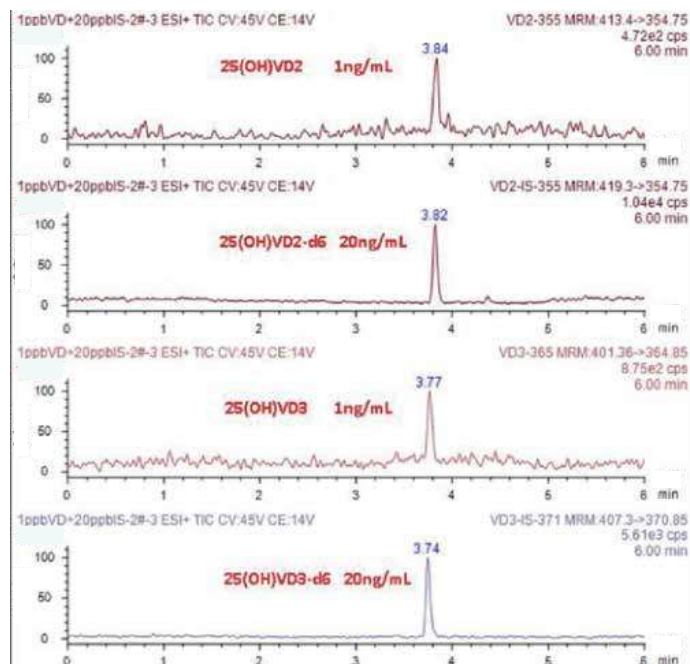
Case 2: Screening for genetic and metabolic diseases in new born

It takes only 2 minutes to screen more than 30 kinds of genetic disease information by using LCMSMS 3210 to quantitative analyze more than 60 kinds of amino acids and acyl carnitine in neonatal dried blood spots.



## Case 2: Detection of Vitamin D in serum

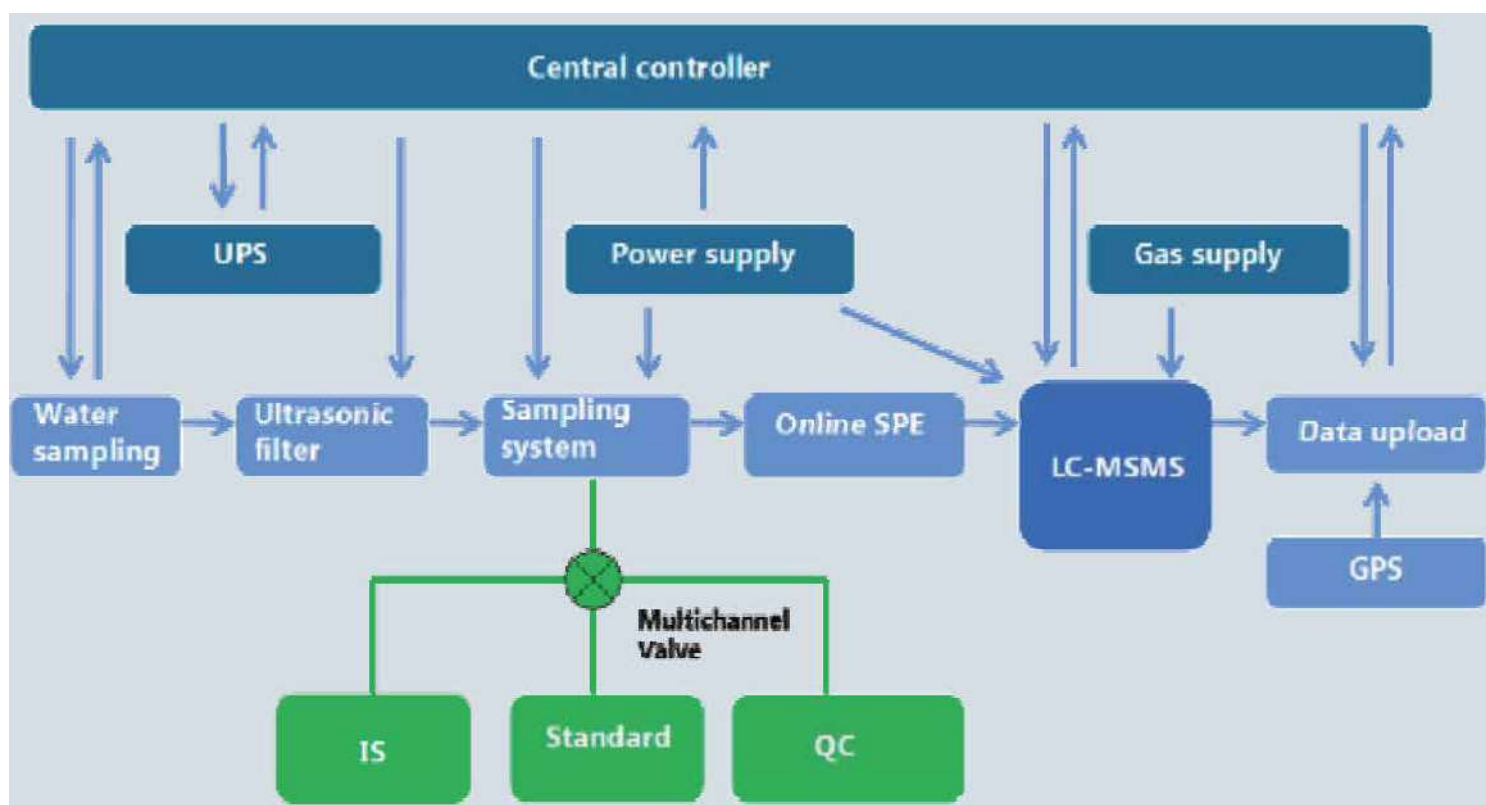
The LCMSMS- 3210 can detect 25 - hydroxy vitamin D concentration in serum. The LOD reaches 1ng/mL. It can be used to evaluate the nutritional status of human body and meet the needs of clinical medical testing.



## Online monitoring system for water quality based on LCMSMS- 3210

The water quality on-line monitoring system consists of some process analysis technologies, such as automatic sampling, ultrasonic filter, on-line SPE, online quality control, etc. Basing on tandem mass spectrometer LCMSMS 3210, the LOD of this system achieves ppt level when testing

SVOCs (including antibiotics, pesticide residues, drug residues, etc.) in complex water which the requirements of continuous meets monitoring the index of organics in water. The system



## Online monitoring of organic pollutants in environmental water

The pretreatment and detection methods of organic pollutants specified in the national limit standards of surface water and drinking water are different and multiple instruments are required for multiple sampling. By using LCMSMS 3210, all analytes can be analyzed within one sampling and water samples can be automatically collected and continually monitored with unattended operation. The system has high detection sensitivity, and LOD is several times to thousands of times lower than the national standard limit value.

		S/N	Scan range/Mass Range(amu)	Scan Speed (amu/s)
3210	ESI	50000:1	5-1000	5000
	APCI	25000:1		



## HPLC Servicing, Validation, Trainings and Preventive Maintenance :

**HPLC Servicing** :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

**Trainings** :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

**AMC's/CMC** :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

**Validations** :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

**Instruments** :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



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Counter



Optical Emission  
Spectrophotometer



DSC/TGA



Semi Auto Bio  
Chemistry Analyzer



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Hematology  
Analyzer



Micro Plate  
Reader/Washer



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Urine Analyzer



Total Organic  
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Ion Chromatograph



Water purification  
system

## Regulatory compliances



## Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



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2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.



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