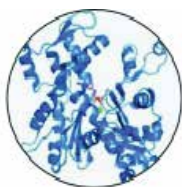
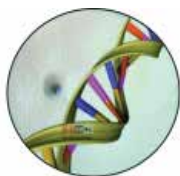


# MALDI-3100N

## Time of Flight Mass Spectrometer



Protein and Peptide



Single Nucleotide  
Polymorphism



Microbe



Virus

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

**Analytical Technologies Limited**

An ISO 9001 Certified Company

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The MALDI - 3100N Matrix-assisted laser desorption ionization Time-of-Flight Mass Spectrometer (MALDI-TOF) is a multifunctional and multipurpose biological detector based on MALDI-TOF technology. It is widely used in microbial identification, medical biomarker identification, gene mutation detection, medical SNP detection, precision medication guidance, food safety, animal or plant quarantine and other fields.

### **Microbial Identification:**

Powerful microbial database by supporting data analysis software; Search and compare obtained protein fingerprint and database fingerprint

### **Nucleic Acid Mass Spectrometry:**

Multiplex PCR+MALDI TOF: detects single point mutations in nucleic acid for genotyping and DNA methylation analysis. Being widely used in genetics analysis, molecular diagnosis, cancer early screening, drug resistance analysis and virus detection

### **Thrombotic Microangiopathy Screening**

Detects the activity of von Willebrand factor (cleaving protease ADAMTS13 /vWF) quantitatively by MS in vitro, the early screening of thrombotic thrombotypopenic purpura (TTP)

### **Detection of Disease Protein Markers**

With corresponding protein chip and unique protein fingerprint technology, builds models of various disease protein markers, such as COVID-19 virus, Alzheimer, Parkinson and cancer, etc.

### **Performance Features**

**Long life laser:** adjustable pulse repetition rate: up to 1000Hz ,adjustable pulse energy , up to 10 billion shots

- **Flight tube:** very low temperature coefficient of special material: ensure the stability of the detection
- **High-efficiency net sieve ion source:** improve the sensitivity of the instrument
- **PIE high-voltage pulse power control:** achieve delay repulsion of ions, improve resolution
- **High-speed data acquisition card:** with a variety of FPGA-based data acquisition card, chart pre-processing, improve the quality of spectra

- 96-hole reusable and disposable target plate
- Visual target monitoring, target correction and automatic positioning
- XYZ driving platform : reduces the time required for vacuum extraction

## Software System

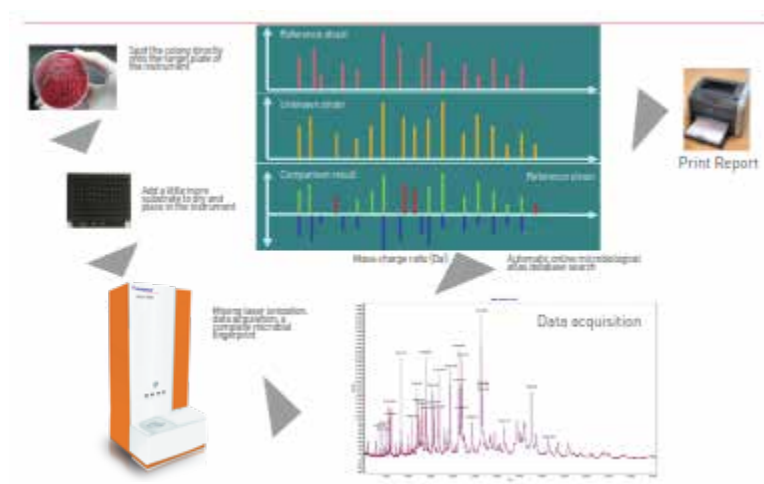
- **Authoritative and traceable database:** more than 80,000 strains
- IVD & RUO database
- **Operation interface language:** English
- Real-time module parameter monitoring
- Generates MS detection different methods according to users' different experiments
- **Cluster analysis function:** performs T-test and other data analysis

## Multifunctional Detection Platform

- Nucleic acid genotyping (Optional)
- Building a Protein Fingerprint Database of Diseases (Optional)

## Microbial identification

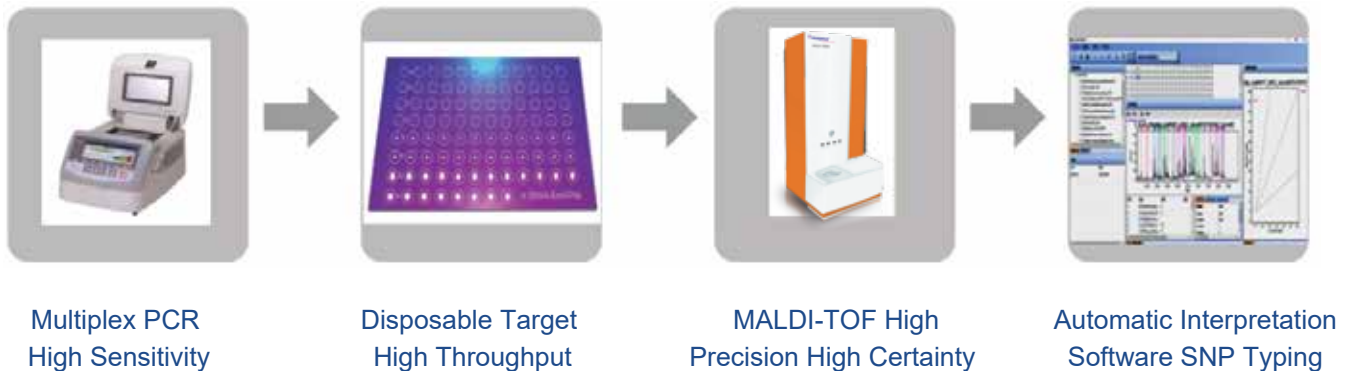
- Large throughput : 96 samples being detected at one time.
- Fast detection speed : 96 samples/ 5 minutes
- Simple sample pretreatment, avoids human interference
- Low cost reagent and consumables
- Wide range of applications : clinical diagnosis , third-party testing , disease control, agricultural, animal husbandry and food safety, etc.



Microbial Identification Process

## Nucleic Acid Mass Spectrometry

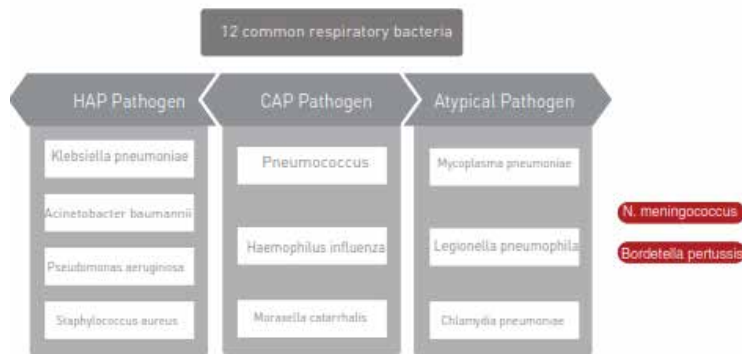
- High efficiency: 96 samples are tested quickly
- High throughput: Simultaneous analysis of 96 samples with up to 40 probes per sample
- High Accuracy: Multiple targets for a same gene, significantly improve the accuracy of sample identification
- High flexibility: increase the target as needed (the original design keeps same)
- High Sensitivity: detect 10 copies / reaction
- High quality-price ratio: no fluorescent labeling needed
- Wide range of applications: genotyping (SNP, insertion-deletion and CNV), methylation analysis, cancer early screening, drug resistance analysis, precision drug guidance, etc.



## Application Solution of Nucleic Acid Mass Spectrometry:

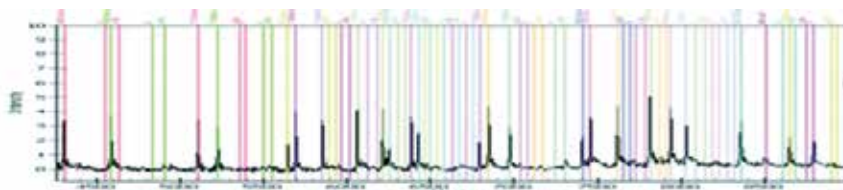
Category	Detection item	Detection Target	Detection Significance
Pathogen Detection	respiratory virus	Influenza A、influenza B、respiratory syncytial virus,parainfluenza virus, metapneumovirus, & etc. --23 types of respiratory virus	Aided Diagnosis of disease
	Cervical Cancer	HPV virus	
	Sex transmission disease infected pathogen	Syphilis, herpes, vaginal hairy wine worm, mycoplasma genitalium, Neisseria gonorrhoeae & etc. -- 12 types 24 genes	
	Food-borne intestinal pathogens	Escherichia coli, shigellosis, salmon, vibrio parahemolyticus, Staphylococcus aureus & etc.--8 types 16 genes	Food safety
Molecular Typing	Legionella & Legionella pneumophila	56 types of Legionella and 15 serotypes of Legionella pneumophila	Aided Diagnosis of disease
	African swine fever virus	24 genotyping, virulence strength and gene deletion	Animal epidemic prevention and control
	Coronavirus	SARS-CoV and SARS-CoV2 etc. --10 genes	Aided Diagnosis of disease
Drug Resistance gene site detection	Mytobacterium tuberculosis	Isoniazid, rifampicin, ethambutol-- 21 drug resistance gene site	Precision medicine
	Cardiovascular drug resistance	Sartan	
	Helicobacter Pylori	17 drug resistance gene sites of clarithromycin, rifampicin, tetracycline and levofloxacin	
Cancer Screening	Lung cancer screening	EGFR 、 KRAS 、 ALK and other gene mutation	Early cancer screening and prevention

## Pathogen Multiple Detection



23 Respiratory Viruses	
Influenza A virus	Metapneumovirus A
Influenza A virus H1	Metapneumovirus B
Influenza A virus H2009	Rhinovirus
Influenza A H3	Corona virus NL63
Influenza B	Corona virus 229E
Influenza B By	Corona virus OC43
Influenza B virus By	Corona virus HKU1
Parainfluenza virus type 1	Corona virus SARS
Parainfluenza virus type 2	Corona virus MERS
Parainfluenza virus type 3	Corona virus SARS-2Tab
Parainfluenza virus type 4	Corona virus SARS-2N
Syncytial virus A	RNA Quality Control
Syncytial virus B	

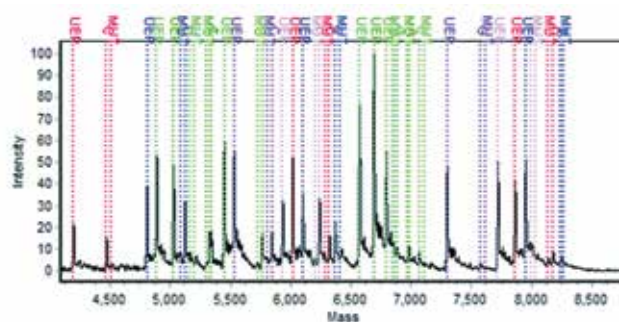
## Cervical Cancer Screening



23 Human Papillomavirus typing

## Food-borne Intestinal Pathogen

Using structure & virulence gene double probe to test main pathogen



16 plexes food-borne intestinal pathogen

## Molecular Typing

- **Detection of Legionella group and Legionella pneumophila**
- 56 types of Legionella (No typing)
- 15 types of Legionella pneumophila (No typing)
- 15 types of Legionella pneumophila (Serotyping)
- **Animal epidemic disease virus test**
- African swine fever virus (ASFV) typing test 24 genes typing, virulence strength strain and gene deletion

56 types of Legionella & 15 types Legionella pneumophila Serotyping test kits  
Multiplex PCR -MS 6 genes 14 SNP single base sequencing  
( red: single base typing; pink: multigene SNP base typing )

sero	16a	22b	23b-55	23b-55	mip	mip	mip	momp	LPS	LPS	LPS	LPS	LPS	LPS
LP.1	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.2	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.3	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.4	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.5	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.6	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.7	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.8	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.9	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.10	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.11	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.12	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.13	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.14	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP.15	G	C	T	T	A	G	T	A	G	G	—	T	C	—
LP	G	C	T	T	A	G	T	A	G	G	—	T	C	—
Lpp	G	C	T	T	A	G	T	A	G	G	—	T	C	—

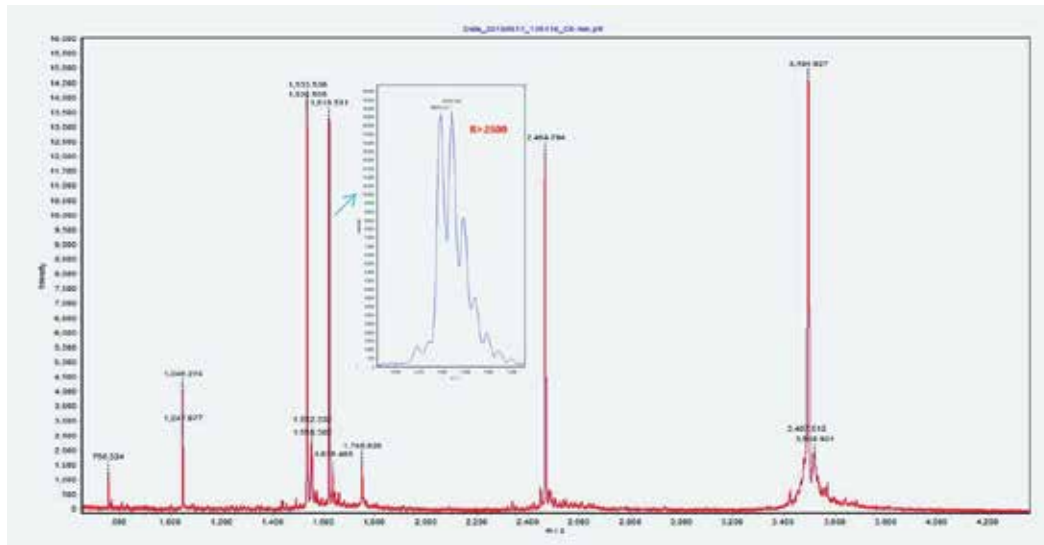
Gene	Test
P72 ( B646L )	24 genes typing
CD2 ( EP402R ) MGF505	virulence strength strain
CD2 ( EP402R ) MGF505 A137R	vaccine gene deletion strength & wild virus



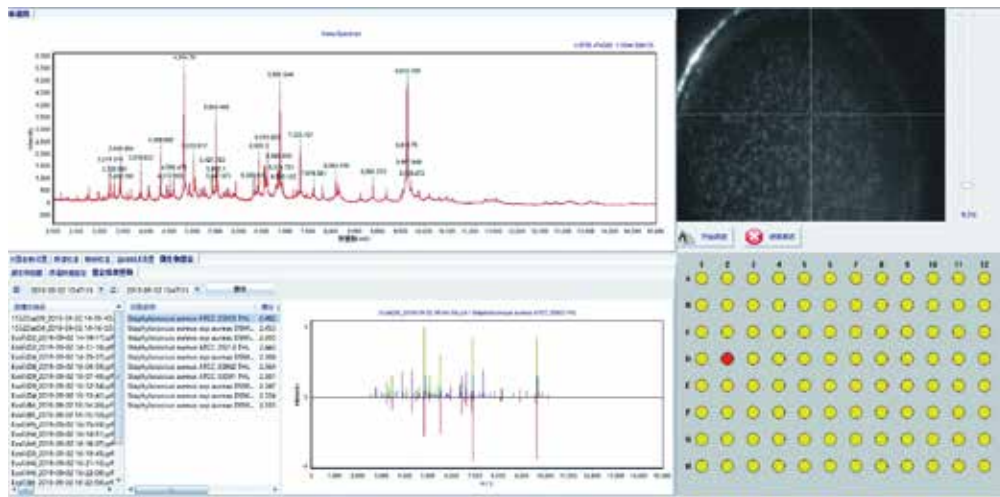
## Coronavirus Detection

Ten gene target probes were used for detection (equivalent to 10 PCR tests), which effectively prevents missed detection. It can not only detect and distinguish the existing 5ARS-CoV and SARS-CoV-2 viruses with ultra-high sensitivity, but also can be used for rapid, effective and timely monitoring and early warning of new SARS-CoV-3,4, .....N Corona virus.

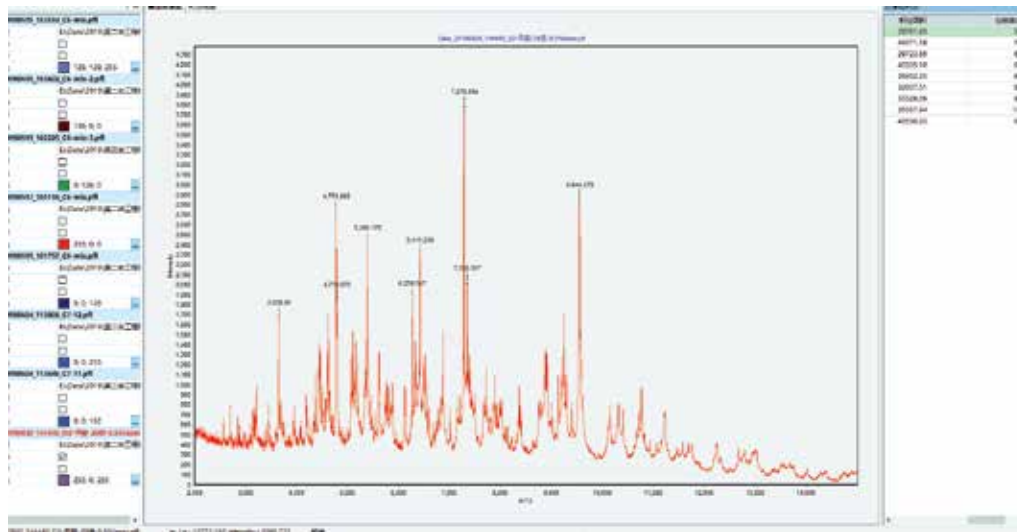
## Reliable Instrument Performance (Microbial Identification)



## Powerful Automated Software System (Microbial Identification)

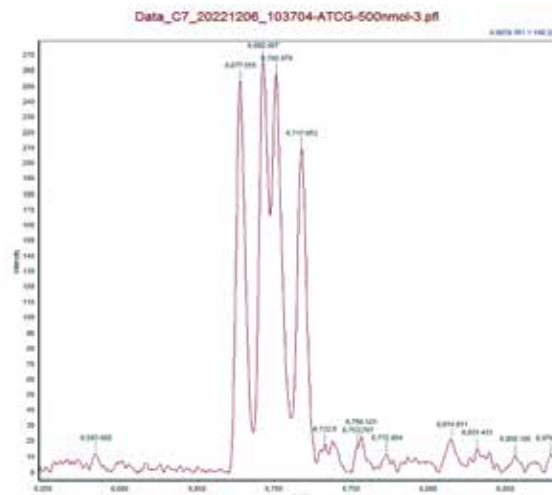


Real-time Workstation System

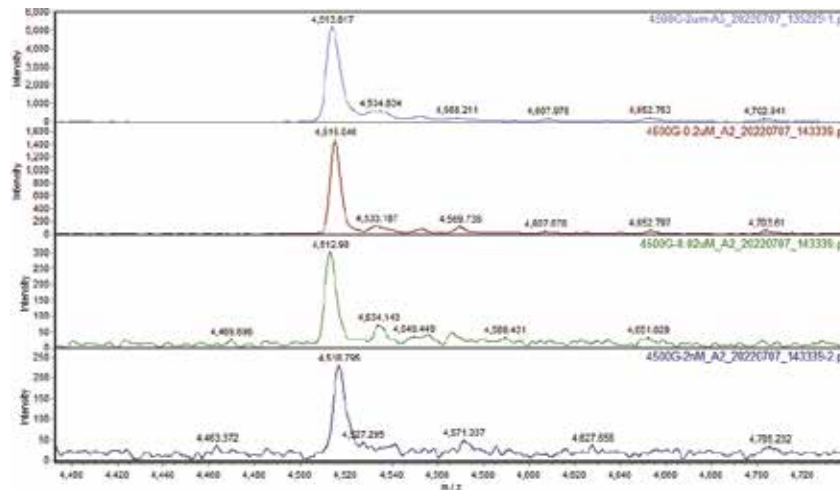


Data Processing System

## High Resolution, High Sensitivity (Nucleic Acid Ms)

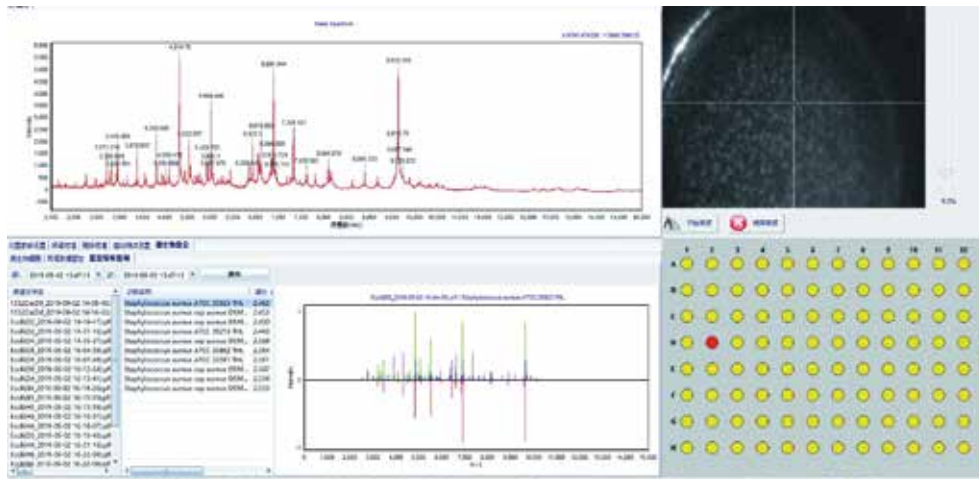


High Resolution

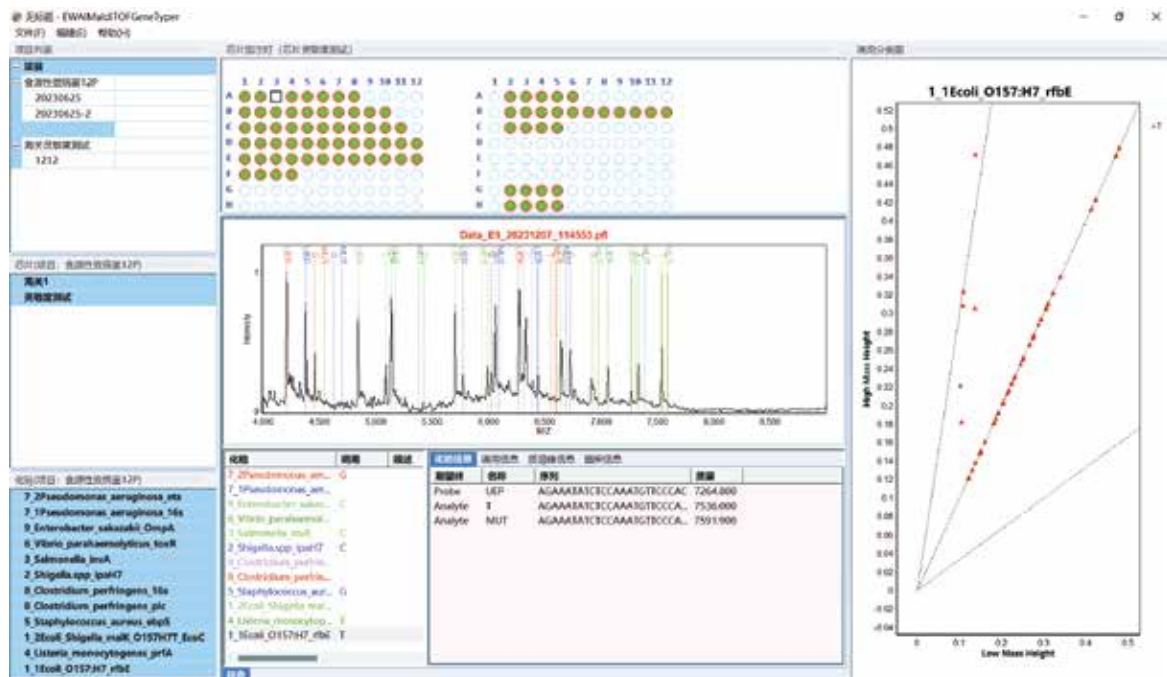


High Sensitivity

Powerful Automated Software System (Nucleic Acid Ms)



Real-time Workstation System



Data Processing System



## 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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Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufaturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

## Our Products & Technologies



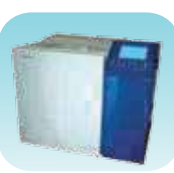
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Infra FTIR



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Chromatograph  
3007



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Chromatograph  
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Atomic Absorption  
Spectrophotometer



Liquid Partical  
Counter



Optical Emission  
Spectrophotometer



DSC/TGA



Semi Auto Bio  
Chemistry Analyzer



HEMA 2062  
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Analyzer



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CLIA



NOVA-2100  
Chemistry Analyzer



PCR/Gradient PCR/  
RTPCR



TOC  
Analyzer



Laser Particle  
Size Analyzer



Ion Chromatograph



Water purification  
system

## Regulatory compliances



## Corporate Social Responsibility

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



1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at [Info@analyticalfoundation.org](mailto:Info@analyticalfoundation.org)

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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