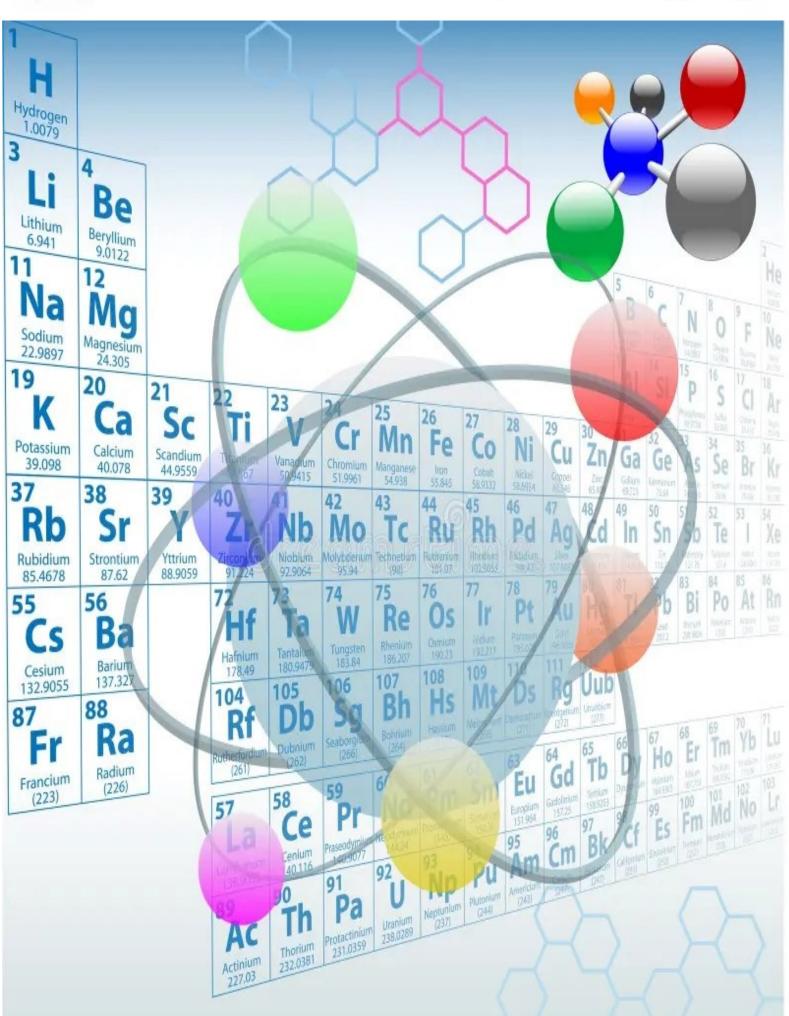


ADVANCE SCIENTIFIC EQUIPMENT PVT. LTD.

Innovative Solutions • Quality Services





Microwave Inductively Coupled Atmospheric Plasma Optical Emission Spectrometer (MICAP – OES)



MICAP-OES 1000

- World's smallest ICP
- Simultaneous analysis
- Smarter, Faster & More Efficient
- No Argon
- No Chiller
- No RF Coil
- No RF Generator
- Wavelength 194 to 625 nm
- Resolution <5 pm @ 200 nm

Inductively Coupled Plasma Mass Spectrometer (ICP - MS)

ACE 3000

- Mass Range 2-280 amu
- Mass Resolution >0.2 amu
- > Accurate Isotope Ratio Determination
- Detection of Nano Particles
- Detection limits
 - < 200 ng/L (32S) [Target spec]
 - < 1 ng/L (78 Se) [Target spec]



Atomic Absorption Spectrometer (AAS)



TRACE AI-1200P

- > F, F/GF, F/VG, F/GF/VG Atomizer Configurations
- Czerny-Turner mounted optics with 1800 line/mm grating
- > 8 Lamp Turret
- Optional Autosampler
- Optional GF Video Monitor

Inductively Coupled Plasma- Atomic Emission Spectrometer (ICP-AES)



Monochromator

- > 1 Meter Focal Length
- Dual grating 4320/2400 g/mm
- Wavelength 120 to 800 nm
- Resolution <5 pm</p>

Polychromator

- 0.5 Meter Focal Length
- > 3600 g/mm doble order grating
- Wavelength 120 to 800 nm





ETV (Electro Thermal Vaporization)

- Analysis at ppb level both in solid and liquid form
- No sample preparation required

Glove Box Adaptable ICP - OES

- Integration in Glove-Box
- Modified sample Compartment

Glow-Discharge Optical Emission Spectrometer (GD - OES)



GD-PROFILER 2

- Ultra Fast Elemental Depth Profile analysis of layered material
- Quantitative measurement of all elements & thickness with a Nanometer Depth resolution
- Patented Differential Interferometry Profiling (DIP)
- Pulsed RF Source
- Patented Ultra Fast Sputtering
- Analyze H, H2, Li, C, N, O etc. upto 47 Elements
- > Spectral range- 110-900nm
- Linear dispersion 0.27nm/mm-3rd order

0.41nm/mm-2nd order

0.83nm/mm-1st order

Nano Particle Size & Zeta Potential Analyzer



SZ-100V2

- Particle Range 0.3 nm to 10 um
- > 3 Angle measurement system
- Minimum Volume 12 uL
- > Zeta Size Range 2 nm to 100 um
- > Zeta Measurement Range -500 to +500mV
- PMT Detector
- Water, Ethanol and Organic Solvents are usable liquids

Laser Diffraction Particle Size Distribution Analyzer

LA-960V2

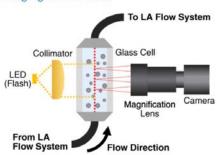
- Measurement Range 10 nm 5000 um
- Sample quantity 10mg 5g
- Measurement time 60 seconds
- > In-line ultrasonic probe
- Fully automated fill and circulation pumps

Powder Jet Dry Feeder Accessory

- Measurement Range 100 nm 5000 um
- Measurement time typically 2 seconds



Imaging Unit LY-9610



LY-9610 Imaging Unit

- Measurable Range 9 1000 um
- Pixel Size 0.73 um
- > Functions: Histogram, Aspect ratio, Circularity, Length, Width etc

Energy Dispersive X-Ray Fluorescence (ED-XRF) Spectrometer



NEX CG-II +

- Benchtop Polarized ED-XRF
- Analyze Na U
- ➤ High Power 65kV 100W X-Ray Tube
- UltraCarry option for PPB-Level Trace Element Analysis
- > ASTM D7220 / ASTM D7751 / ASTM C114
- > Type of Sample- Solid, Liquid, Powder, Pellet, Filter (EPA), Rare Earth etc.

NEX CG-II

- Benchtop Polarized ED-XRF
- Analyze Na U
- ► High Power 50kV 50W X-Ray Tube
- UltraCarry option for PPB-Level Trace Element Analysis
- ASTM D7220 / ASTM D7751 / ASTM C114
- Type of Sample- Solid, Liquid, Powder, Pellet, Filter etc.





NEX DE VS

- Benchtop ED-XRF
- Analyze Na U
- High Resolution Camera
- > 1,3 or 10 mm analysis spot size
- ➤ 60kV X-Ray Tube
- Seven Automated Tube Filters
- > ASTM D7751 / ASTM C114
- > Type of Sample- Solid, Liquid, Powder, Pellet, Filter etc.

CS/ONH Analyzer



CS Analyzer

- Carbon Measurement Range: 0.6 ppm 10%*
- ➤ Sulfur Measurement Range: 0.6 ppm 1%*
- > Typical Measurement Time 70 seconds/cycle
- Crucible Pre-heating Unit
- Autosampler
- Ceramic Crucible
- Accelerators
- Automation option

ONH Analyzer

- Oxygen Measurement Range: 0.04 ppm 5%*
- Nitrogen Measurement Range: 0.04 ppm 3%*
- Hydrogen Measurement Range: 0.08 ppm 0.25%*
- Sample weight 1g
- Autosampler
- Cycle time: Approx. 160 Sec
- Automation option
- Crucible loader
- > Auto Cleaner





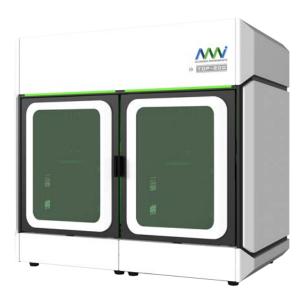


EMIA- Step

- Carbon Measurement Range: 0.0003 ~6.0% (m/m)*
- Sulfur Measurement Range: 0.0004 ~ 1.0% (m/m)*
- ➤ Minimum reading: 0.000001% (m/m) for both Carbon and Sulfur

*Note: The Measurement ranges for CS/ONH can be extended upto 100% m/m by reducing sample mass

BET Analyzer



Physisorption

- Absorbates N2, Kr, Ar, H2, Co2, NH3, CH4 etc.
- Pore Size Range 0.35 nm- 500 nm
- Surface Area Range 0.0001 m2/g
- Independent Intake Gas System for Each Analysis Port
- Pressure Sensors 1000 Torr, 10 Torr, 1 Torr or 0.1 Torr
- Degassing Station 4 in-situ
- No of Micropore Station Up to 4
- Analysis Ports 4 Nos
- P0 Ports 4 Nos

Chemisorption

- > Temperature programmed desorption (TPD)
- Temperature programmed reduction / oxidation (TPR/O)
- > Temperature programmed reaction (TPRx)
- Pulse chemisorption
- Catalyst treatment
- > Flow BET surface area
- > Pulse calibration
- Sases: 4 carrier, 4 treatment, 2 blend (Others Available)
- Primary Detectors: 4 filament TCD with choice of material (W, Au/W)
- Gas Flow Rates: 5 to 50 sccm (Others Available)





Custom Reactor System

- Isothermal reaction studies
- TPR, TPO, TPD, TPRx, Pulse Chemisorption
- Dynamic BET
- Analysis via integral TCD or auxiliary MS (or GC)
- Number of stations 4
- System operating Pressure: Ambient
- Gas Inlet Pressure Range: 50 psig
- Gas Outlet Pressure Range: Near Ambient

Elemental Analyzer



Total Sulfur & Nitrogen Analyzer

- ASTM D5453 / ASTM D6667
- > ASTM D7183 / ASTM D7551
- UOP 987 / IP490 / SH/T 0689
- > ISO 20 846
- By Ultraviolet Fluorescence Principle, it detects rapidly Sulfur & Nitrogen in Liquid, Oil, Biofuel, Lubricating Oil, Hydrocarbon, Solvent, Water, Gas, LPG and Solid Samples

Total Chlorine/ Halogen (Bromine, Iodine & Fluorine) Analyzer

- ASTM D4929 / ASTM D5808
- ASTM D6721 / ASTM D5194
- UOP 779 / UOP 910
- > ISO 9562 / ISO 11480
- Liquid, Oil, Biofuel, Lubricating Oil, Solvent, Water, Plastics, Sediments, Chlorinated PVC, Paper Pulp, Coal, Tar, Cements, Soils, Palm Oil, Gas, LPG, Solid Samples





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