

# CA - 3430

---

## Chemistry Analyzer



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

**Analytical Technologies Limited**

An ISO 9001 Certified Company

## ►► Chemistry Reagents

### Hepatic Panel

Alanine Aminotransferase (ALT)  
Aspartate Aminotransferase (AST)  
Alkaline Phosphatase (ALP)  
γ-Glutamyl Transferase (γ-GT)  
Direct Bilirubin (D-Bil) DSA Method  
Direct Bilirubin (D-Bil) VOX Method  
Total Bilirubin (T-Bil) DSA Method  
Total Bilirubin (T-Bil) VOX Method  
Total Protein (TP)  
Albumin (ALB)  
Total Bile Acids (TBA)  
Prealbumin (PA)  
Cholinesterase (CHE)

### Renal Panel

Urea (UREA)  
Creatinine (CREA) Modified Jaffé Method  
Creatinine (CREA) Sarcosine Oxidase Method  
Uric Acid (UA)  
Carbon Dioxide (CO<sub>2</sub>)  
Microalbumin (MALB)  
β<sub>2</sub>-Microglobulin (β<sub>2</sub>-MG)  
Cystatin C (CysC)  
Retinol Binding Protein (RBP)  
Total Protein In Urine & CSF (TPUC)

### Inorganic & Anemia

Iron (Fe)  
Ferritin (FER)  
Transferrin (TRF)  
Calcium (Ca)  
Magnesium (Mg)  
Phosphate Inorganic (P)  
Unsaturated Iron Binding Capacity (UIBC)  
Glucose-6-phosphate Dehydrogenase (G6PD)

### Lipid Panel

Total Cholesterol (TC)  
Triglycerides (TG)  
HDL-Cholesterol (HDL-C)  
LDL-Cholesterol (LDL-C)  
Apolipoprotein A1 (ApoA1)  
Apolipoprotein B (ApoB)  
Lipoprotein(a) (Lp(a))

### Immune Panel

Immunoglobulin A (IgA)  
Immunoglobulin G (IgG)  
Immunoglobulin M (IgM)  
Complement C3 (C3)  
Complement C4 (C4)

### **Cardiac Panel**

Creatine Kinase (CK)  
Creatine Kinase-MB (CK-MB)  
Lactate Dehydrogenase (LDH)  
 $\alpha$ -Hydroxybutyrate Dehydrogenase ( $\alpha$ -HBDH)  
Full Range C-reaction Protein( FR-CRP)

### **Diabetes Panel**

Glucose (Glu) GOD-POD Method  
Glucose (Glu) HK Method  
Hemoglobin A1c (HbA1c)  
Fructosamine (FUN)  
 $\beta$ -Hydroxybutyrate ( $\beta$ -HB)

### **Rheumatism Panel**

C-reactive Protein (CRP)  
Rheumatoid Factor (RF)  
Antibodies Against Streptolysin O (ASO)

### **Pancreatitis Panel**

$\alpha$ -Amylase ( $\alpha$ -AMY)  
Lipase (LIP)

### **Lung Panel**

Adenosine Deaminase (ADA)  
Angiotensin Converting Enzyme (ACE)

**Precise pipetting system**  
Highly polished probes are equipped with multiple technologies to ensure the accuracy and reliability. The minimum sample volume is as low as 1.5 $\mu$ L.

**Efficient washing system**  
Interior and exterior washing reduces the carry-over of sample probe to be less than 0.05%. Pre-warmed de-ionized water and detergent ensures the cleanliness of cuvettes.

**Intelligent mixing system**  
Stepper motors with speed monitoring optimizes the mixing effect.

**Advanced optical system**  
The technology-enhanced grating photometer effectively reduces the stray light and enhances the measuring accuracy of test results. The dot light source lowers the minimum reaction volume to 100 $\mu$ L and maximizes the cost efficiency. Prolong the service life of the lamp by auto sleep function.

**Reliable heating system**  
The maintenance-free direct solid heating technology stabilizes the reaction temperature at 37 $^{\circ}$ C. 24-hour refrigeration maintains the temperature of reagent compartment between 2~8 $^{\circ}$ C.



### New software platform

Inherited from Mindray high-end products, the user-friendly software integrates more practical functionalities and makes itself more easy-to-use. The step-by-step maintenance guide allows the maintenance easier and more comprehensive.

### Total solution for clinical chemistry

Dedicate to providing a total solution for clinical chemistry with traceability to ensure the ultimate accuracy of test results.



### Optimized integration of the whole system

All parameters are optimized during the integration to maximize the reliability of test results.

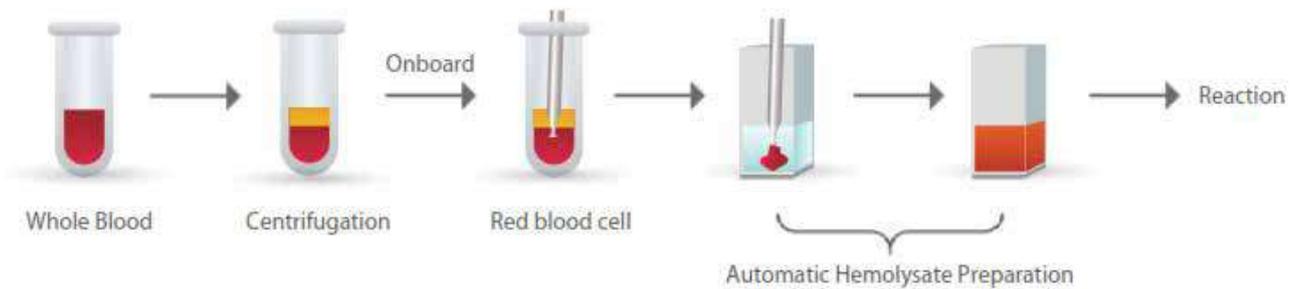
### HbA1c smart-sampling

The smart-sampling technology allows on-board hemolysis for HbA1c.



## ▶▶ HbA1c Smart-sampling Technology

CA-3430 chemistry analyzer utilizes HbA1c smart-sampling technology, which allows onboard automatic hemolysate preparation for whole blood samples, thus achieving shorter turnaround time (TAT) and eliminating any biohazardous risks or any errors by manual operation.



Mindray HbA1c assays of enzymatic method, with application of specified protease and Fructosyl Peptide Oxidase (FPOX), has a good correlation with HPLC method. The enzymatic method is proven to have high precision, specificity and better performance to avoid interference from hemoglobin variants, and it is traceable to IFCC/NGSP reference methods.

## ►► Technical Specifications

<b>System Function:</b>	Automatic, discrete, random access, STAT sample priority
Throughput:	420 photometric tests per hour, up to 626 tests per hour with ISE
On-board tests:	90 photometric tests + 3 ISEs + 3 serum indices

### Sample Handling

Sample tray:	102 sample positions,
Sample volume:	1.5 $\mu$ L~45 $\mu$ L, step by 0.1 $\mu$ L
Sample probe:	Liquid level detection, collision protection, clog detection (optional), and auto-dilution, automatic hemolysis Carry-over $\leq$ 0.05 $\mu$ L

### Reagent Handling:

Reagent tray:	92 reagent positions with 24-hour refrigeration 2~8 $^{\circ}$ C,
Reagent volume:	10 $\mu$ L~200 $\mu$ L, step by 0.5 $\mu$ L
Reagent probe:	Liquid level detection, collision protection, bubble detection, concentrated reagent with auto-dilution

### Built-in Bar Code Reader (optional):

Sample and reagent bar code readers support  
 Codabar, ITF (Interleaved Two of Five), Code128,  
 Code39, UPC/EAN and code93,  
 Capable to connect with LIS in Bi-directional mode

### Reaction System:

Cuvettes:	93 reusable cuvettes with 8-step auto-washing
Reaction temperature:	37 $\pm$ 0.1 $^{\circ}$ C
Reaction volume:	100~300 $\mu$ L
Mixing system:	2 independent mixers with speed detection

### Optical System:

Light source:	12V 20W tungsten-halogen lamp
Photometer:	Grating system
Wavelength:	340nm, 380nm, 412nm, 450nm, 505nm, 546nm, 570nm, 605nm, 660nm, 700nm, 740nm, 800nm
Absorbance range:	0~3.5A

### ISE Module (Optional):

K<sup>+</sup>, Na<sup>+</sup>, Cl<sup>-</sup>

**Control and Calibration:**

Calibration mode: K factor, Linear (two points and multi-points), Logit-Log 4P, Logit-Log 5P, spline, exponential, polynomial, parabola, Logit-log3P, broken line

Control rules: Westgard multi-rule, Levey-Jennings, Cumulative sum check, Twin plot

**Operation Unit:**

Operation system: Windows 10

Interface: RS-232 serial port

**Working Conditions:**

Power supply: 220V-240V, 50/60Hz, ≤1000VA  
or 110V-130V, 60Hz, ≤1000VA

Water consumption: ≤20 L/H

Dimension: 1050 mm (W) \* 720 mm (D) \* 1150 mm (H)

Weight: ≤200 Kg

## 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.



## About Analytical Technologies

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, Manufacturing, 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



UV/VIS  
Spectro 2080+  
Double Beam



Infra FTIR



Optima Gas  
Chromatograph  
3007



Optima Gas  
Chromatograph  
2979 Plus



Flash  
Chromatograph



Atomic Absorption  
Spectrophotometer



Liquid Particle  
Counter



Optical Emission  
Spectrophotometer



DSC/TGA



Semi Auto Bio  
Chemistry Analyzer



HEMA 2062  
Hematology  
Analyzer



Micro Plate  
Reader/Washer



URINOVA 2800  
Urine Analyzer



Total Organic  
Carbon 3800



Fully Automated  
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:



**Analytical**  
Foundation

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.



**Analytical**<sup>®</sup>  
Technologies Limited

HPLC Solutions MultipleLabs Analytical Bio-Med Analytical Distributors Analytical Foundation (Trust)

**Corporate & Regd. Office:**  
Analytical House, # E67 & E68,  
Ravi Park, Vasna Road, Baroda,  
Gujarat 390 015. INDIA

T: +91 265 2253620  
+91 265 2252839  
+91 265 2252370  
F: +91 265 2254395

E: [info@hplctechnologies.com](mailto:info@hplctechnologies.com)  
[info@multiplelabs.com](mailto:info@multiplelabs.com)  
[info@analyticalgroup.net](mailto:info@analyticalgroup.net)  
[info@analyticalbiomed.com](mailto:info@analyticalbiomed.com)

W: [www.analyticalgroup.net](http://www.analyticalgroup.net)  
[www.hplctechnologies.com](http://www.hplctechnologies.com)  
[www.multiplelabs.com](http://www.multiplelabs.com)  
[www.ais-india.com](http://www.ais-india.com)

Sales & Support Offices:  
across the country :  
Distributors & Channel  
partners World Wide