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 (CO2)
Microalbumin (MALB)
β2-Microglobulin (β2-MG)
Cystatin C (CysC)
Retinol Binding Protein (RBP)
Total Protein In Urine & CSF (TPUC)

Cardiac Panel

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

Diabetes Panel

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

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)

Rheumatism Panel

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

Pancreatitis Panel

α-Amylase (α-AMY)
Lipase (LIP)

Lung Panel

Adenosine Deaminase (ADA)
Angiotensin Converting Enzyme (ACE)

Technical Specifications

System Function: 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: 1.5μL~45μL, step by 0.1μL
Sample probe: Liquid level detection, collision protection, clog detection (optional), and auto-dilution, automatic hemolysis Carry-over≤0.05μL

Reagent Handling

Reagent tray: 92 reagent positions with 24-hour refrigeration 2~8°C,
Reagent volume: 10μL~200μL, step by 0.5μL
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: $37 \pm 0.1°C$
Reaction volume: 100~300μL
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^+, Na^+, Cl^-

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

BS-430
Clinical Chemistry Analyzer
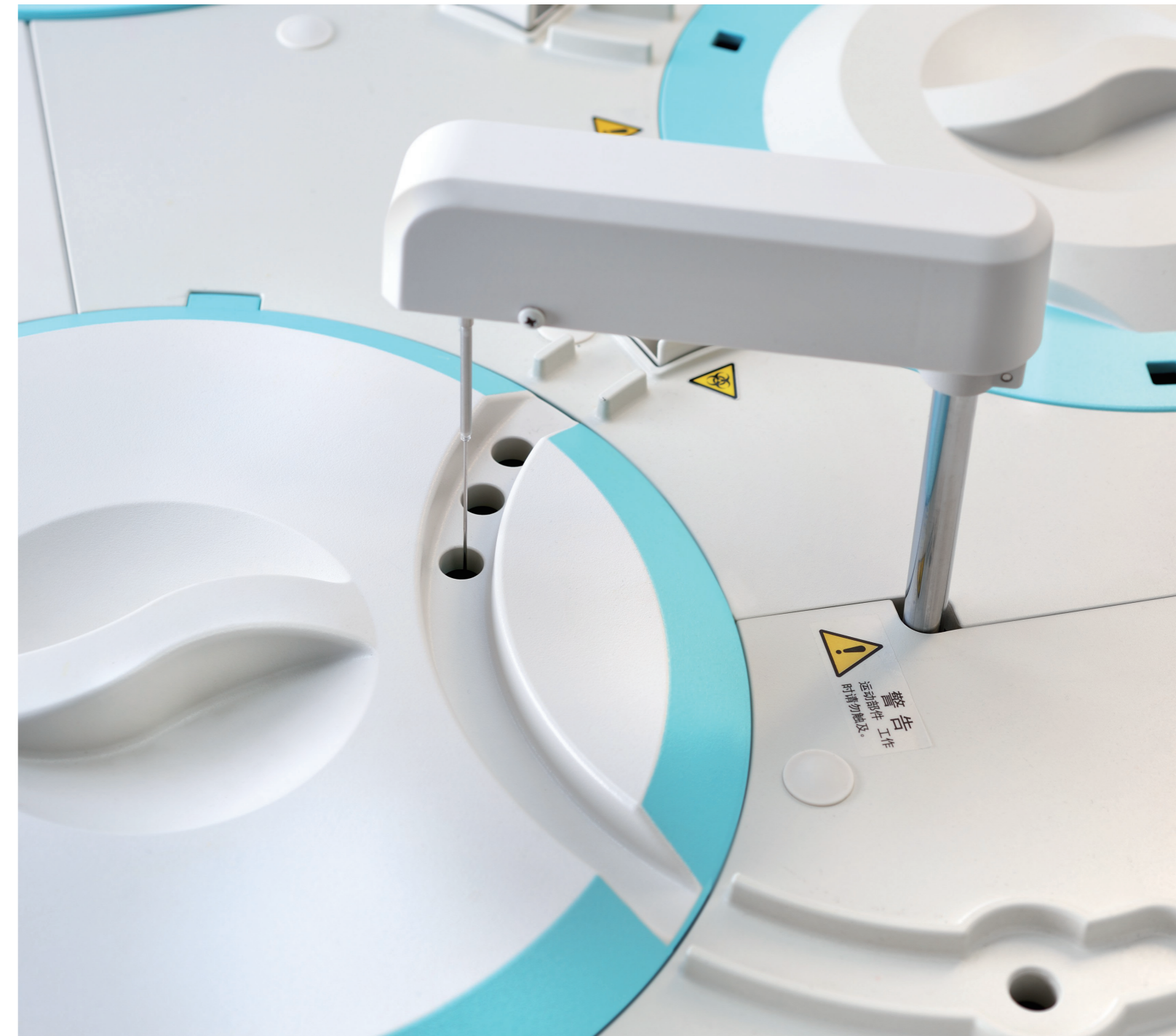
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healthcare within reach

BS-430
Clinical Chemistry Analyzer

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 1.5µL.

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
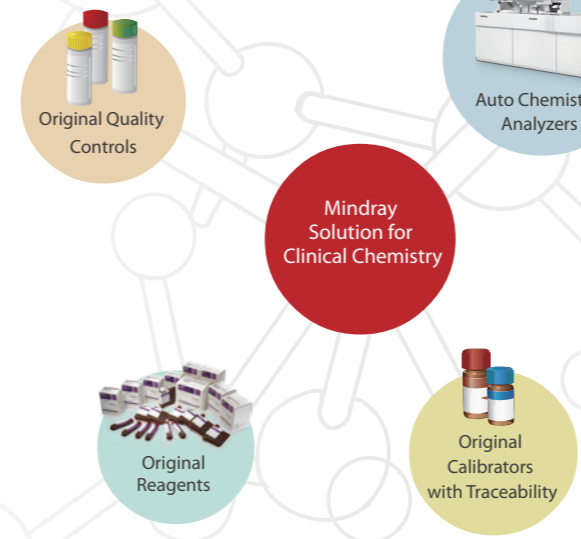Stepper motors with speed monitoring optimizes the mixing effect.

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 100µL 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°C. 24-hour refrigeration maintains the temperature of reagent compartment between 2~8°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.

Original Quality Controls

Auto Chemistry Analyzers

Mindray Solution for Clinical Chemistry

Original Reagents

Original Calibrators with Traceability

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.

mindray
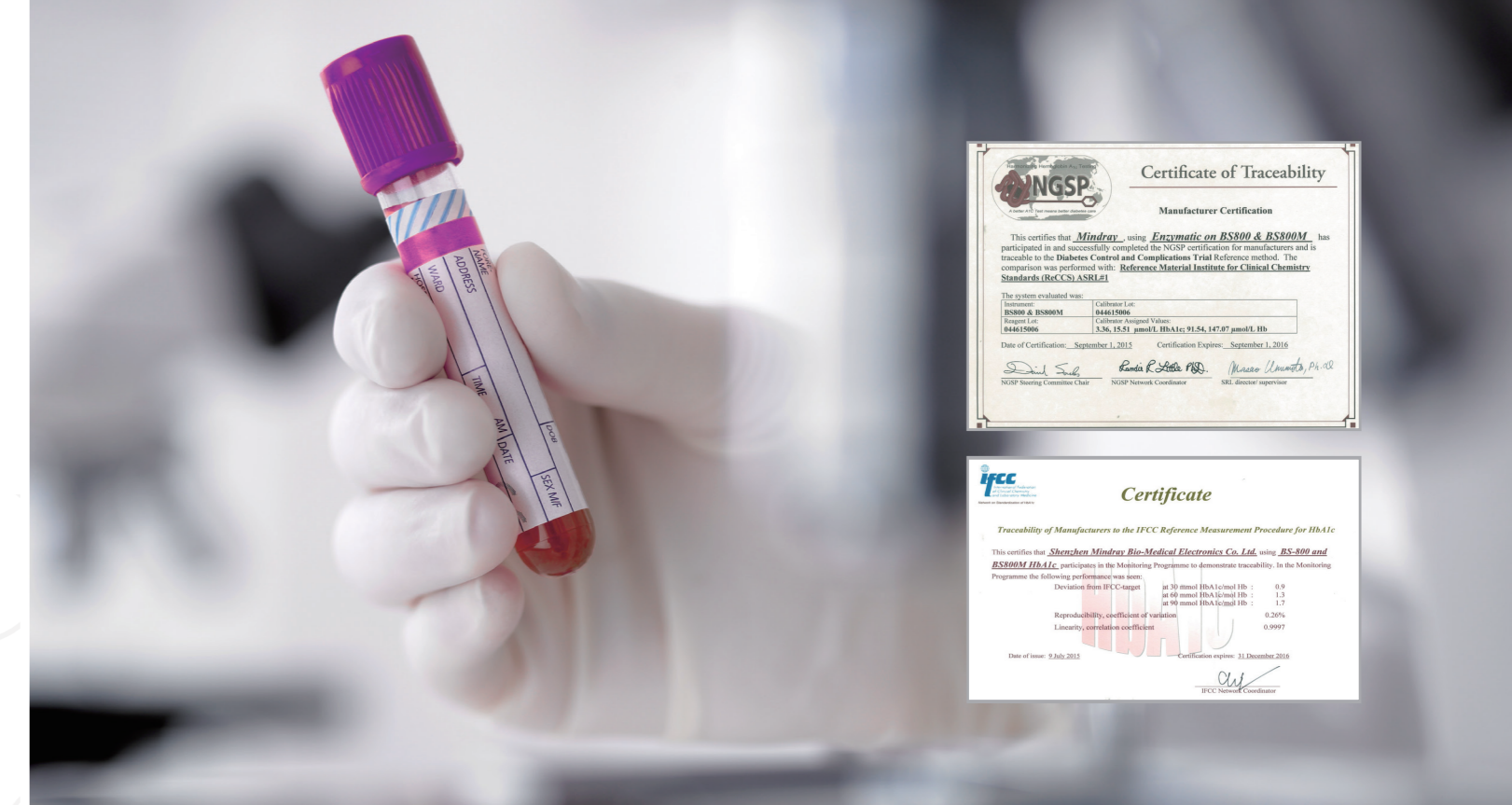
BS-430

HbA1c Smart-sampling Technology

BS-430 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.

Whole Blood → Centrifugation → Onboard → Red blood cell → Automatic Hemolysate Preparation → Reaction
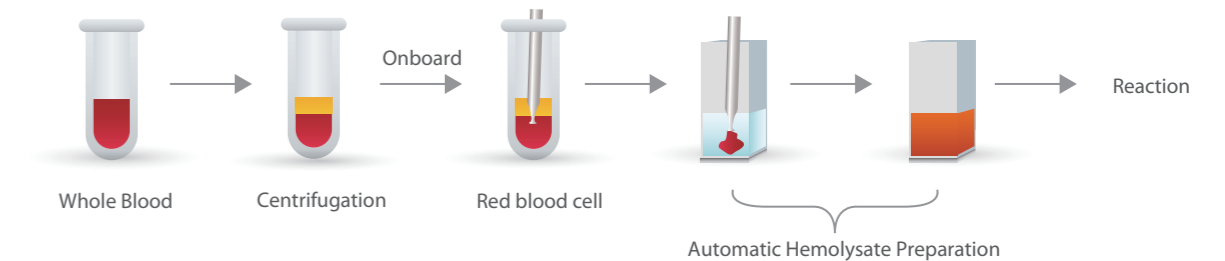
Mindray HbA1c assays of enzymatic method, with application of specified protease and Fructosyl Peptide Oxidase (FPOX), has a good correlation with HPLC method. The enzymatic method is proven to have high precision, specificity and better performance to avoid interference from hemoglobin variants, and it is traceable to IFCC/NGSP reference methods.