

# Biossays BC2200

Automatic Biochemistry System



# Outstanding Technology

## Power of Biochemistry



### Your Final Diagnostic Solution

Biossays BC2200 automatic biochemistry system designed with such highly customized options and fine performance can always provide a final solution to customers. Fully customized platform can expand with not only biochemistry system, but also E1200 electrolyte and MAGLUMI 4000 Plus immunochemistry module to satisfy future requirement. Biossays BC2200, up to 1600 tests per hour, together with assorted reagents, as well as internal calibrator and multiple level controls, can help the operator get accurate and reliable results more efficiently.



# Advantages of Biossays BC2200

## Automatic Biochemistry System

### ■ Sample Module

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- Independent sample loading module, 280 samples can be loaded at one time on sample racks with barcode label recognition
- Micropipette technology, The minimum sample volume can be 2.0  $\mu$ L
- Batch, Random access, STAT track

### ■ Photometry System

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- Holographic concavity flat field grating, rear spectroscopy technology
- Wavelength range: 340-800 nm, simultaneous detection on the 16 wavelengths, comprehensive coverage of all biochemical reagent testing requirements
- Stable optical path detection system, wide absorbance linear range, high resolution ratio

### ■ Operating System

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- Full monitoring, flexibility and convenience
- LIS interface via ethernet or serial port, bidirectional communication

### ■ Reagent Handling

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- R1 & R2 two-reagent trays, each tray has 45 reagent positions, temperature 5°C-15°C, with reagent barcode reader
- Reagent inventory real-time detection, display the remaining number of tests
- Automatic reagent replace function, continuous loading, applied to examination system for mass inspection

### ■ Constant Temperature System

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- Constant temperature water bath system, best temperature stability
- Real-time temperature monitoring, displaying and alerting function

# Biossays BC2200



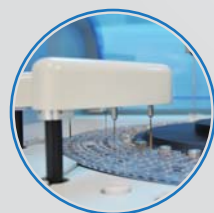
## Dual-needle Sample Probe

- 2.0  $\mu\text{L}$  – 35.0  $\mu\text{L}$  sample volume with stepping 0.1  $\mu\text{L}$
- Liquid level detection and clot detection
- Crush-proof and self-recovery function
- Highly polished to prevent cross-contamination
- Simple structure for maintenance
- High-efficient adding



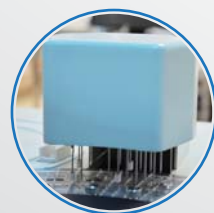
## Reaction Disk

- 330 reaction cuvettes
- 150  $\mu\text{L}$  minimum reaction volume
- High performance optical plastic



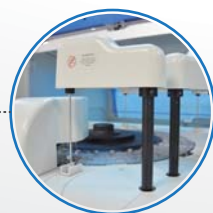
## Dual-head Sample Mixer

- Double wash with pre-heated pure water before mixing
- 1400 rpm high speed flat mixing bar
- Simple structure for maintenance
- High-efficient mixing



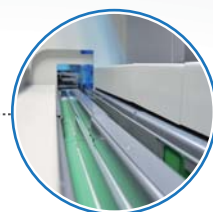
## 10-step Cuvette Washer Station

- Wash with pre-heated pure water and auto-diluted detergent
- Automated cuvette wash & cell blank check



## Reagent Probe

- 20  $\mu\text{L}$ -350  $\mu\text{L}$  reagent volume with stepping 1  $\mu\text{L}$
- Liquid level detection
- Crush-proof and self-recovery function
- Highly polished with minimum cross-contamination
- Simple structure for maintenance



## Transport Channel

- Highly efficiency with smart sample rack distributing to 4 lanes
- Individual lane for STAT sample
- Smart sample rack buffer position ensure a continuously sampling



## Reagent Handling

- Total 90 reagent positions for R1 and R2
- Continuously loading during measurement
- 5°C-15°C constant cooling



## Sample Rack Reader

- Intelligent sample recognition system, including RFID & barcode



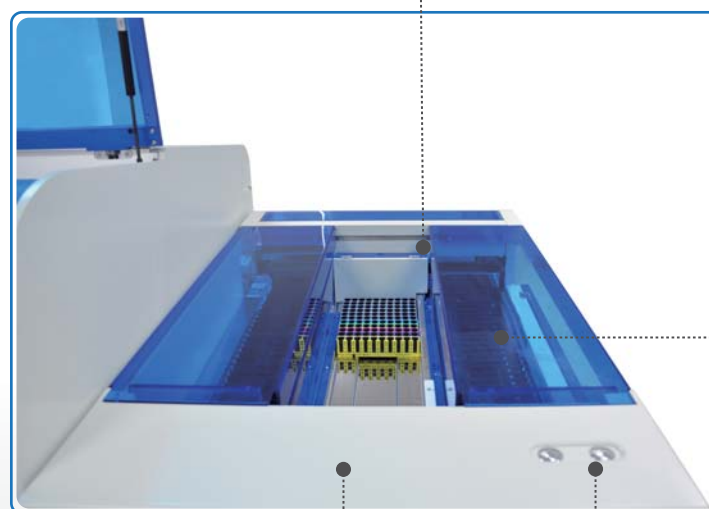
## Sample Loading Area

- 280 samples at the same time
- Continuously loading and unloading
- 6 types of racks with different colors: Normal, STAT, Control, Calibrator, Light Check, Remeasure
- All kinds of sample type: Serum, Plasma, Urine, CSF, etc



## STAT Sample Button

- Click to cut in STAT sample in procedure
- Emergency pause during loading sample rack



## Ready-to-use Consumables

- Wash concentrate ready-to-use and automatically prepared by instrument

# Operation Software



## Comprehensive Software

- User-friendly Interface
- Real-time status monitoring for each test
- Monitoring reagent and consumable status
- Intelligent alarm function



## Maintenance Guide

- Ensure performance reliability and reduce unnecessary service calls
- Simple structure easy to maintain



## Quality Control

- Westgard rules and Levey-Jennings chart for both internal and external quality control



## Test Summary Function

- Test summary including system test, calibration, QC, statistics of samples, valid tests and retests
- Search and review test information conveniently
- Calibration history review and restore



## Accurate Pre-dilution

- Pre-dilution function



## Connect to LIS (bidirection)

- Bidirection, serial communication or network communication using ASTM



# Test Menu



## Cardiac

CK  
CK-MB  
 $\alpha$ -HBDH  
LDH  
\*LDH1



## Inorganic Ion

Fe (Iron)  
Ca  
P (phos)  
\*Mg



## Pancreatic

$\alpha$ -AMY  
\*LIP



## Lipids

HDL-C  
LDL-C  
TC  
TG  
ApoE  
Lp(a)  
Hcy  
ApoA1  
ApoB



## Hepatic

TBA  
ALT (SGPT)  
AST (SGOT)  
ALP  
GGT  
TBIL  
DBIL  
TP  
ALB  
\*Ammonia  
\*PA (Prealbumin)  
\*CHE  
\*AFU  
\*5'-NT



## Diabetes

GLU  
LAC  
\*HbA1c  
\*GSP  
\*D3-HB



## Renal

Cr (CREA)  
Uric Acid  
Urea  
\*Cysc  
\*mALB  
\* $\alpha$ 1-MG  
\* $\beta$ 2-MG  
\*Urine/CSF Protein  
\*RBP



## Special Protein

IgA  
IgM  
IgG  
Transferrin  
\*ASO  
\*RF  
\*CRP (Full Range)  
\*UIBC  
\*Urine/CSF Protein  
\*G6PD  
\*C3  
\*C4  
\*ACP  
\*Haptoglobin



## ISE

Na  
K  
Cl  
Ca  
pH

\* Available soon

# Biossays BC2200

## Automatic Biochemistry Analyzer

### Technical Specifications

|                             |   |
|-----------------------------|---|
| Type of system              | <ul style="list-style-type: none"> <li>Automated discrete, STAT priority</li> </ul>   |
| Throughput                  | <ul style="list-style-type: none"> <li>1600 tests/hour</li> </ul>   |
| Measuring principles        | <ul style="list-style-type: none"> <li>Endpoint, rate, kinetic, fixed-time technology</li> </ul>  |
| Sample volume               | <ul style="list-style-type: none"> <li>2.0 <math>\mu</math>L - 35.0 <math>\mu</math>L, 0.1 <math>\mu</math>L stepping</li> </ul>  |
| Sample needle               | <ul style="list-style-type: none"> <li>Liquid level detection, Clot detection, Crush proof</li> </ul>   |
| Reagent needle              | <ul style="list-style-type: none"> <li>Liquid level detection, Crush proof</li> </ul>   |
| Reagent handling            | <ul style="list-style-type: none"> <li>R1 and R2 reagent disks with cooling function and 45 reagent positions for each disk</li> </ul>  |
| Reagent volume              | <ul style="list-style-type: none"> <li>20 <math>\mu</math>L - 350 <math>\mu</math>L, 1 <math>\mu</math>L stepping</li> </ul>  |
| Reagent storage temperature | <ul style="list-style-type: none"> <li>5°C-15°C, refrigerated by semiconductors</li> </ul>  |
| Reaction cup number         | <ul style="list-style-type: none"> <li>330 reaction cuvettes totally</li> </ul>   |
| Optical path                | <ul style="list-style-type: none"> <li>6 mm</li> </ul>  |
| Reaction volume             | <ul style="list-style-type: none"> <li>150 <math>\mu</math>L - 450 <math>\mu</math>L</li> </ul>   |
| Reaction temperature        | <ul style="list-style-type: none"> <li>37.0°C<math>\pm</math> 0.3°C, fluctuations not greater than <math>\pm</math> 0.2°C</li> </ul>  |
| Stirring method             | <ul style="list-style-type: none"> <li>Separated mixing after adding reagent</li> </ul>   |
| Washing method              | <ul style="list-style-type: none"> <li>Auto-wash of reaction cuvetts, reagent needles, sample needles, mixers</li> </ul>  |
| Light source                | <ul style="list-style-type: none"> <li>Durable halogen tungsten lamp with 100W/12V</li> </ul>   |
| Wavelength                  | <ul style="list-style-type: none"> <li>16 wavelengths</li> <li>340 nm, 380 nm, 405 nm, 450 nm, 480nm, 505 nm, 546 nm, 570 nm, 600 nm, 630 nm, 660 nm, 700 nm, 720 nm, 750 nm, 780 nm, 800 nm</li> </ul> |
| Absorbance range            | <ul style="list-style-type: none"> <li>0 ABS<math>\sim</math>3.0 ABS</li> </ul>   |
| Dispensing system           | <ul style="list-style-type: none"> <li>Independent sample and reagent probe with liquid level detection, liquid surface verification and clot detection</li> </ul>                                      |
| Dilution                    | <ul style="list-style-type: none"> <li>Auto-dilution, retest</li> </ul>   |
| Software function           | <ul style="list-style-type: none"> <li>English operation software monitoring the entire process, a variety of user modes available</li> </ul>   |
| Power supply                | <ul style="list-style-type: none"> <li>120/230 Vac, 50/60 Hz</li> </ul>   |
| Power                       | <ul style="list-style-type: none"> <li>Sample processing module: 600 VA</li> <li>Biochemistry (including sample tracks): 1800 VA</li> </ul>   |
| Dimension                   | <ul style="list-style-type: none"> <li>Sample processing module: 72 cm*119 cm*102 cm</li> <li>Biochemistry (including sample tracks): 122 cm*119 cm*140 cm</li> </ul>                                   |
| Weight                      | <ul style="list-style-type: none"> <li>Sample processing module: 240 kg</li> <li>Biochemistry (including sample tracks): 440 kg</li> </ul>  |
| Water consumption           | <ul style="list-style-type: none"> <li>Pure water consumption not greater than 45 L/H</li> <li>Wash liquid consumption less than 280 mL/H</li> </ul>  |