

Ministry of Higher Education  
University of Basrah  
Al-Zahra'a College of Medicine

# Laboratory Instrumentations





Korea medilab  
**CO<sub>2</sub> incubator**

**Support your micro-volume separation needs with:**

- Water jacket method with excellent temperature maintenance
- Compact design for easy portability and space saving
- Round corner for contamination prevention and copper-containing SUS 304 inner material
- More accurate non-dispersive dual-beam Infra-red sensor
- Can be used inside the Clean Bench to prevent contamination
- Built-in various safety devices such as gas monitor, overheating prevention, and water level alarm
- Outstanding economic efficiency with low gas consumption and space saving
- Equipped with a standard flow meter
- Automatic sterilization function - UVGL (Option)



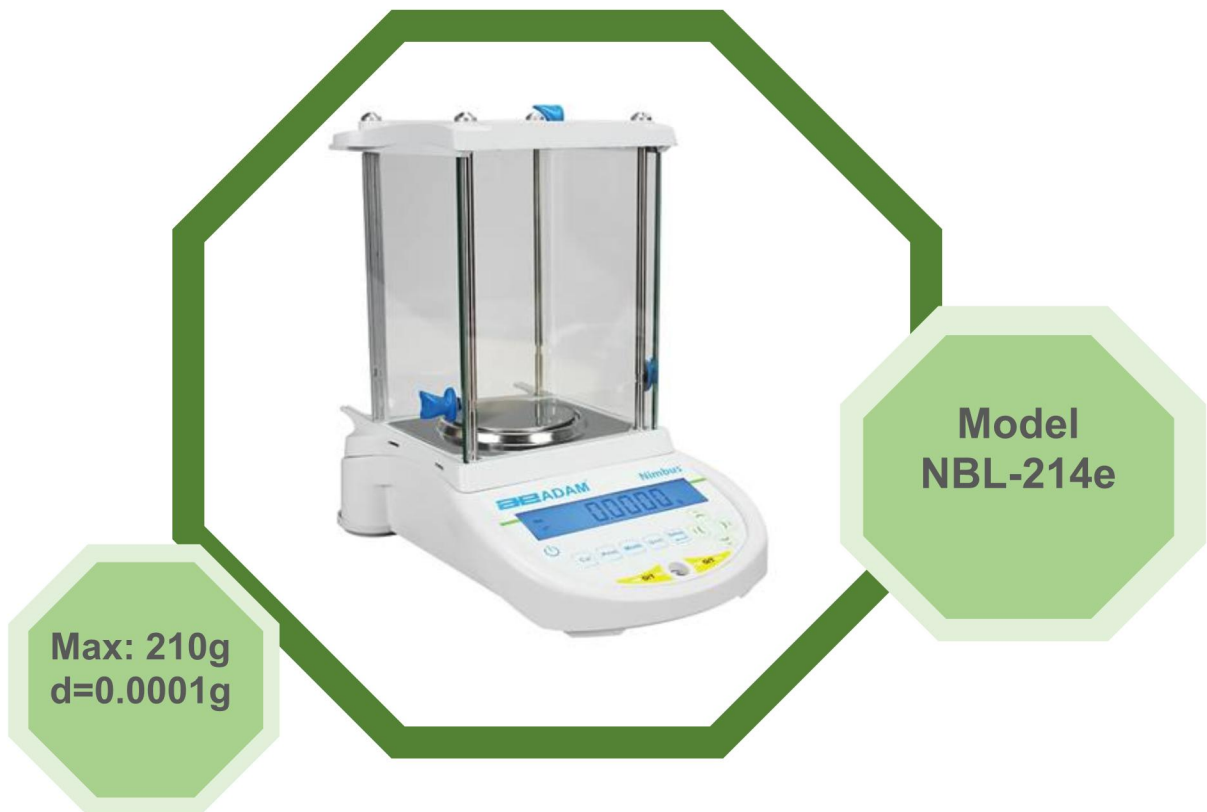
**Model  
NAS-99**

**Measurement  
2-3 seconds**

**Avans Biotechnology Corp.  
Micro-volume Nucleic Acid  
spectrophotometer**

**Features:**

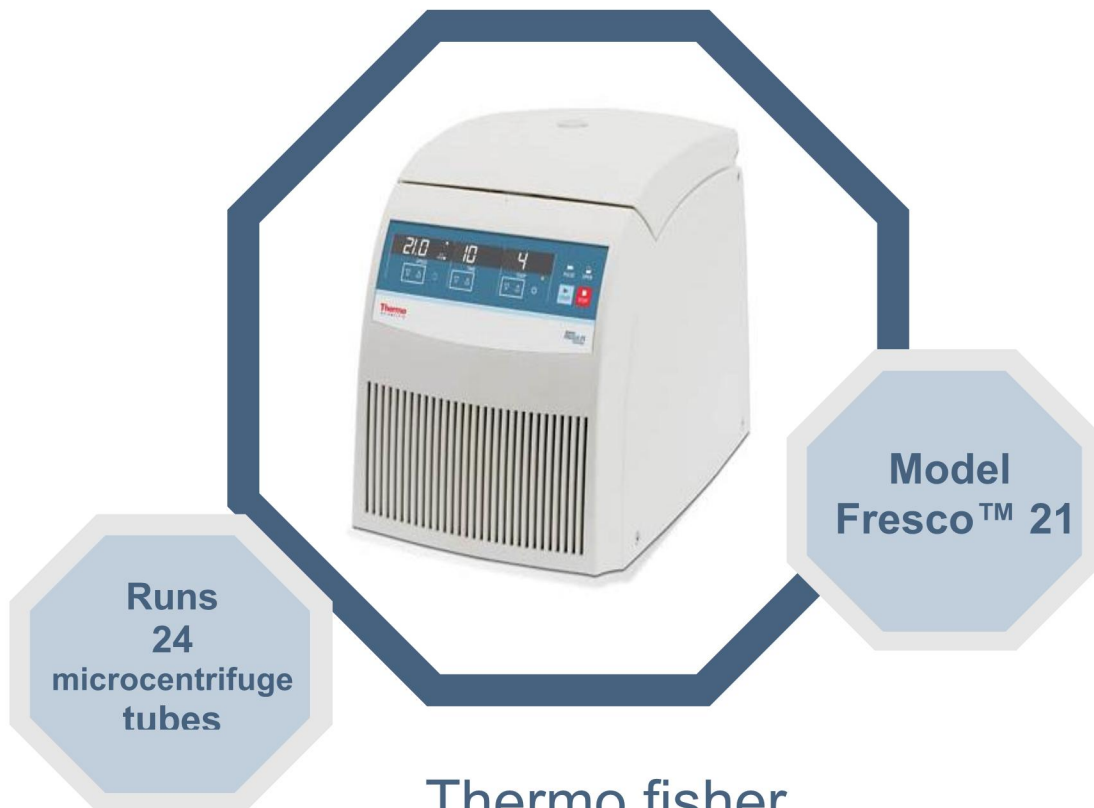
- No need to dilute high-concentration samples.
- No cuvettes or capillaries or other positioning instruments required.
- Measurement only needs 2~3 seconds.
- Controlled by the computer software with data storage function and power supplied by USB with low voltage.
- Buttons of “Blank” & “Measurement” on the shell, no need to use mouse.
- “Standard Curve” function in the software increases the accuracy of the measured values.
- “Remote Maintenance” function in the software allows faster and more effective trouble shooting and solution.



AE Adam  
**Analytical Balance**

**Features:**

- Colour-coded keys facilitate quick recognition of the most frequently used buttons
- Level indicator and adjustable feet ensure proper balance setup for optimum weighing results
- Robust metal housing protects internal components in harsh environments
- Sealed keypad protects against dirt and spills
- USB and RS-232 interfaces provide speedy communication with computers and printers
- Large, grade 304 stainless steel pan allows easy cleaning
- Vivid, backlit LCD easily visible in any lighting conditions



## Thermo fisher **Microcentrifuge**

### Support your micro-volume separation needs with:

- Exceptional acceleration of up to 21,000xg in as little as 12 seconds.
- Refrigerated versions offer cooling from room temperature to set temperature in as little as 9 minutes.
- Choose from 7 optional microcentrifuge rotors to find the ideal fit for your application:
- Outstanding corrosion resistance with lightweight engineered polymer rotors.
- Standard rotor runs 24 microcentrifuge tubes in a single row, from 1.5 to 2.0 mL tubes to mini-preps and spin columns.
- Eliminate the need for adapters with unique dual row rotor.
- Simplify operation with intuitive controls, easy-to-read displays and fast one-click centrifuge lid closure.
- Sleek, lightweight, space-saving design.
- Conforms to the latest clinical and safety standards, including 98/79/EC In Vitro Diagnostic Directive.



## Thermo scientific Digital Heating Shaking

### Features:

PID control ensures consistent shaking results and precise temperature control.

- Speed range from 150 to 1500rpm (block dependent)
- Program Storage:
  - 10 programs, up to 10 steps per program
  - Interval shaking function allows shaking and non-shaking in same program
- Two types of timing modes:
  - Start only after temperature reaches desired set point
  - Start immediately after the timer is set
- Low-profile design
- Easily changed blocks in multiple sizes for maximum flexibility



## Hirayama Autoclave

### Features:

- Electromechanical lock system.
- Dual-sensing interlock mechanism.
- Pulse exhaust system (HVE-50).
- Memory function (program your own).
- Space - saving design.
- Process status display.



Thermo Scientific™  
**General Protocol Oven**

**Features:**

- Operating temperatures from 50°C to 250°C
- Automatic over-temperature alarm system
- Low overall energy consumption
- Built-in timer
- Corrosion-resistant stainless steel chambers with rounded corners
- Large, easy-to-read vacuum fluorescent display
- Easy-to-use, microprocessor-controlled touch button operation
- Doors can be opened at over 180°C





**Diab USA**  
**Centrifuge**

**Features:**

- Speed range of 300-4000rpm.
- 3 programs storage capacity for routine applications.
- Automatic internal diagnosis.
- Maintenance free brushless DC motor.



DLAB

# PCR Thermocycler

## Features:

- Reliable heating/cooling elements and precise temperature control
- Unique design of block ensures the temperature uniformity and repeatable results
- 7 inch large color touch panel screen for easy programming with user friendly software
- High performance DSP and temperature control
- Fast heating and cooling rate
- Large user program storage



## Roche Real time PCR

### Features and benefits

Compact and easy to use, the LightCycler® 96 System Primary is the ideal companion for applications including gene expression analysis, gene detection, mutation detection, methylation analysis, miRNA research, and relative quantification of target genes.

- Fast precision thermocycling and innovative glass fiber optics for unbiased 96-well data capture.
- Accurate results expected from a LightCycler® System—now including gradient functions.
- Robust multiplex gene expression and high-resolution melt (HRM) assays without the need for passive reference dyes or temperature calibration.



## Diab USA Centrifuge

### Features:

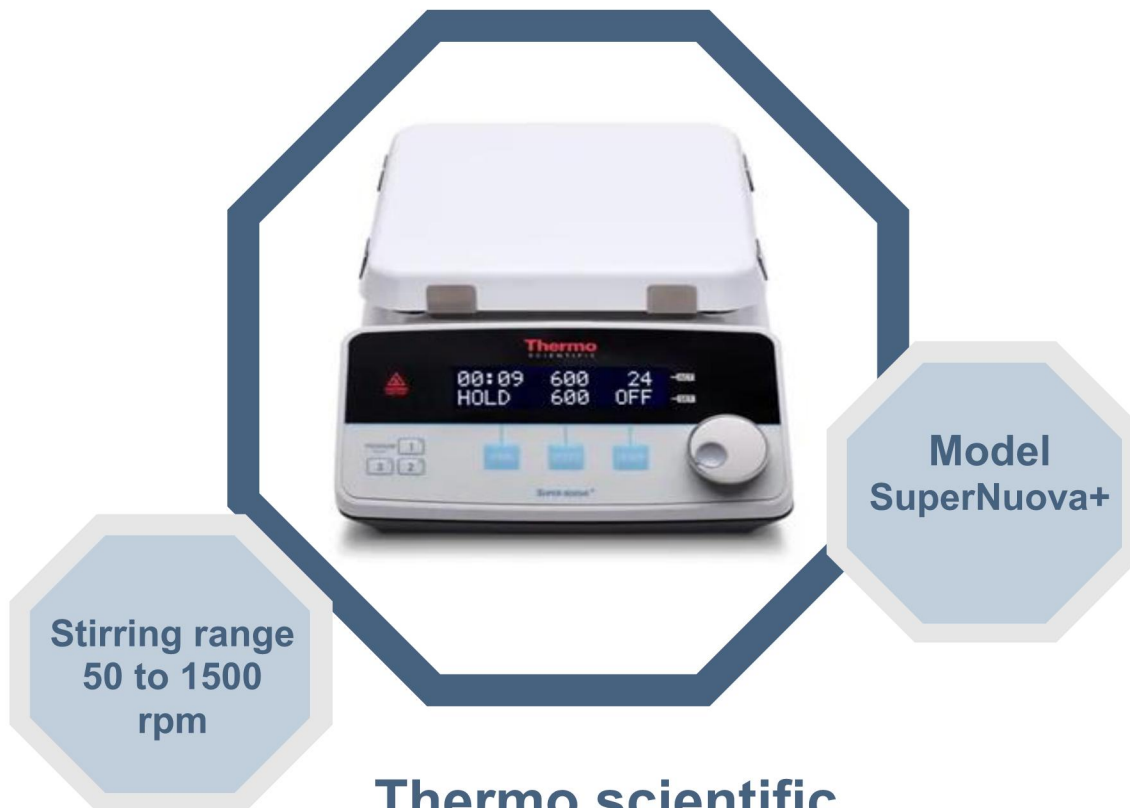
- This model is used when the samples can't be disturbed by air current and when the accurate temperature and uniformity are not critical important to users.
- A mercury thermometer is mounted on top of the equipment providing temperature direct reading.
- Comes with hydraulic thermostat sensor.
- The door lock is designed easy to lock and open.
- The formed door gasket is efficient to prevent the heat loss.



## DAIHAN® Forced-air Incubator

### Features:

- Optimized Air Flow by Forced-air Mechanism
- Digital PID Control System Implementing Superior Temperature Accuracy
- New Jog-Dial with Push Button
- Compact New Body Design
- Alarm Function : Error status and Timer-end
- RS232C Interface for Monitoring and Controlling with PC
- Ambient to 70°C of Temp. Range, Fluctuation of  $\pm 0.2^{\circ}\text{C}$  at 37°C,  $\pm 0.3^{\circ}\text{C}$  at 50°C
- Storage Function of Temperature and Timer setting values
- Locking Mode Supported for Experimental Safety (Input to Jog-Dial can be disabled)
- Corrosion Resistant 304 Stainless-steel Chamber
- Incubator Temperature & Incubator Current Protection, **Sensor Error Detection**



## Thermo scientific Stirring Hotplates

### Features:

- Top plate choices in ceramic or aluminum
- Easy-to-read LED display for heating and stirring
- Raised display design protects electronics from spills
- Ability to save temperature setting
- Stir Trac features innovative engineering for slow-speed stirring, consistent speed control, and stronger magnetic coupling
- Hot Top warning system protects from accidental burns with prominent display when heating surface is above 50°C (122°F)



## Air science Hood

### Features:

This Air Science Flow Hood features sturdy durable construction, that's chemically resistant, and cleanroom compatible. The compact LED lighting is situated away from the laminar flow area, and the interior features a GFCI outlet to provide power to equipment within. The lamp, blower, and outlet can all be toggled on and off, depending on the need, from the up top control panel. The high-capacity system delivers a flow velocity of 0.45 m/s /90 fpm, while the filter pressure gauge measures filter performance. Thanks to an external rotor blower, this laminar hood also provides not only efficient energy usage but also lower noise and vibration levels.



**Model  
D2012  
plus**

**Run time  
30sec-99min  
Continuous**

## **DLAB High speed mini centrifuge**

### **Features:**

- The top speed of 15 000rpm and the centrifugal force of 15 100xg, make the D2012 plus perfect for a wide spectrum of tasks
- Quickly reaches top speed with its brushless DC motor
- Noise levels very low – up to  $\leq 56$ dB
- The centrifuge is proven by IEC/EN 61010-1
- Has successfully held the explosion-proof test and is accredited with CE, cTUVus, FCC certificates, and MCA test. MCA test according to IEC/EN61010-2-20
- An LCD display shows information in real time
- Press and hold “PULSE” button for short spin functionality; accelerate and hold the target speed with ease
- The automatic lid lock helps against sample warming, while raising the ease of access





biotech fischer

## UV-transilluminator

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UV transilluminators are used in molecular biology laboratories to view DNA or RNA that has been separated by electrophoresis through an agarose gel. Exposing the stained gel to a UV light source causes the DNA to fluoresce and become visible.



Gemmy industrial corp.

## Shaker water bath

### Features:

- Choice of digital or analog setting to meet your requirements.
- Built-in circulating stirrer ensures uniform bath temperatures.
- Heating lamp indicates the heating element is energized or stabilized
- Tube rack and flask platform can be raised and lowered to suit the lengths of different vessel and test tubes.
- They are detachable and easy for installment.
- An induction motor produces a 20mm circular motion with 0 dB ensures maintenance free.