

Bio-Spectrophotometer



Benchtop SpectroArt200 and SpectroArt200S bio-spectrophotometers are dedicated for determination of protein and nucleic acid concentration in molecular biology labs. Consists of 7" touch LCD, 10mm cuvette holder, thermal printer. The SpectroArt 200 is the fast, simple, accurate tool for DNA / RNA, Protein measurement, OD600 bacterial growth, enzyme Kinetic, wavelength scanning, pick peak function, Fluorescence cooperation define FOI, Single Drop ready. Each analysis category with auto conversion function provides operator to change and readout data in desirable Abs, T%, 260 / 280 ratio, or concentration include Bradford @ 595nm, Lowry @ 750nm, and BCA @ 562nm standard curve programs. Moreover, labeling density of fluorescent labeled nucleotide probe can be determined through FOI function. Build in thermal printer direct print out Abs, mean value, SD, concentration, spectrum, T%, calibration curve, date, categories...etc. PC software optional.

SpectroArt 200S equipped with Single Drop function that consists of internal calibration for applying with Traycell*. Applicable sample volume range from 5 μ l down to 0.7 μ l by using 1.0 and 0.2mm cap. Simply recalibrate the cell alignment with single point recalibration function when exchanging the Traycell with other cuvettes.

The core of SpectroArt configure includes high intensity long life Xenon flash lamp as light source, high resolution linear CCD for detection, thermal printer, two USB port, in-build software no need training, direct result read out, suitable for all molecular biology laboratory. The wavelength accuracy of compact optical module was calibrated by Holmium oxide for longest stability. Standard, semi-micro, micro, ultra-micro disposable cuvettes can be also adaptable for general applications.

Features

- Pre-set single drop analysis for 0.7 - 5 μ l volume
- Compact, Fast, Accurate, Simple, Small footprint
- Optical resolution less than 1nm
- Single point recalibrate function
- Ten wavelength peak pick
- Real-time result storage
- PC software available

Applications

- Fluorescent nucleotide probe labeling density determination
- Education, university, academic and research institute
- Analytical chemistry, molecular laboratory
- Food industrial and inspection laboratory
- Drug discovery, Biotechnology company
- Water testing and colorimetric analysis
- Proteomics, genomics core facility
- Enzyme reaction, immunology

Single drop analysis mode

Available with 0.2 / 1.0mm light path providing simple and easy operation capability. Pre-set program requests no necessary to do any parameter setting.



Control and display

7 inches large size energy-saved TFT LCD touch screen, direct dialogue operation for function selectable, calibration curve and spectrum display, parameter setting, and printer control.



Printer

56.8mm width built-in thermal printer, direct print out complete data such as: sample ID, Date, Spectrum, Abs, T%, Concentration, Mean value, and Peak wavelength.

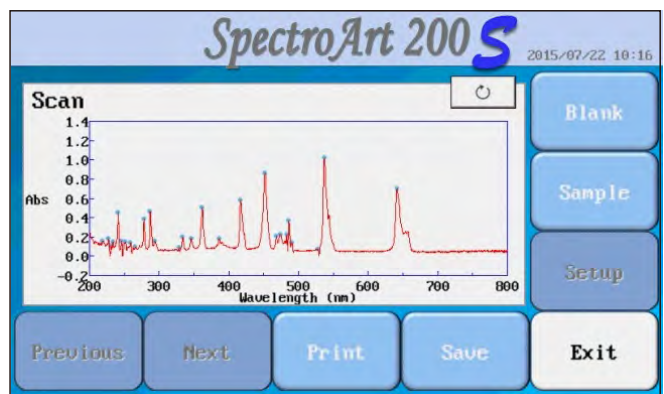
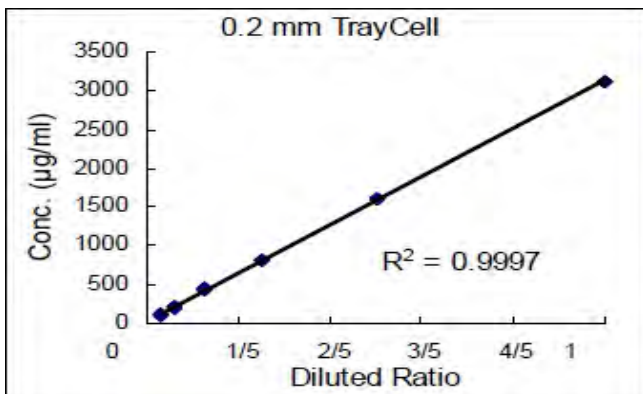


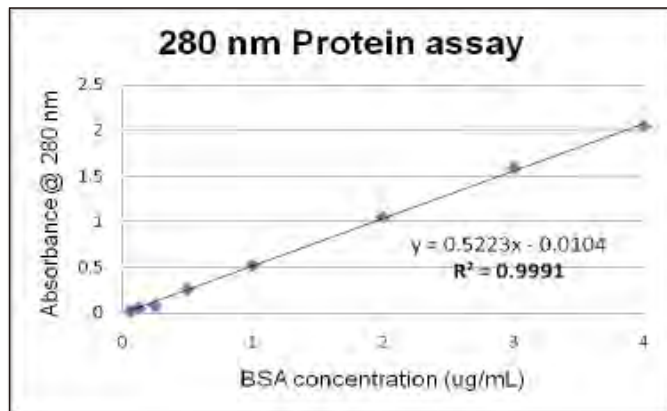
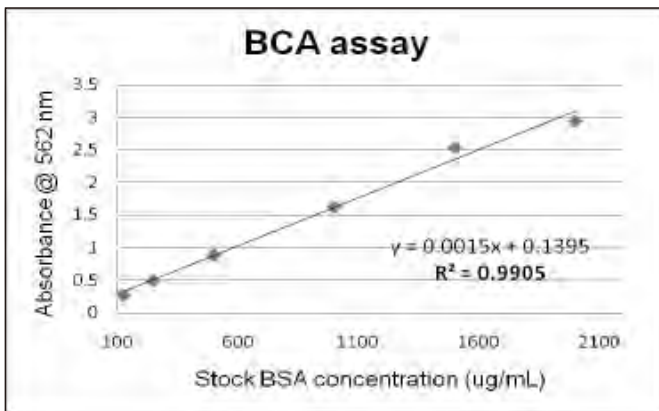
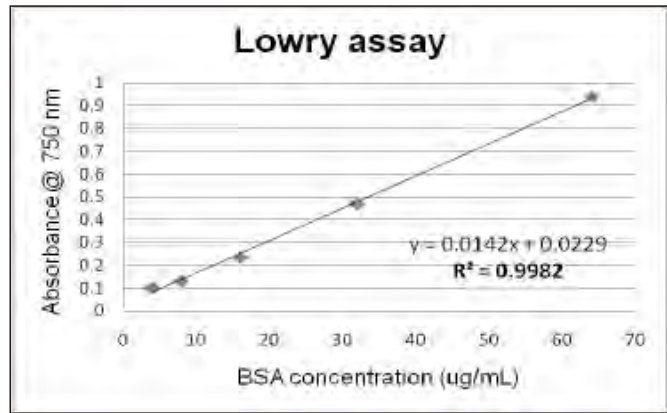
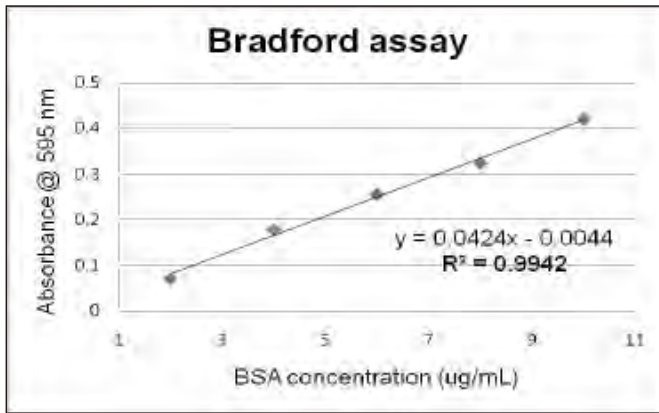
PC Software available

Allow to control through PC software. All measured data can be transferred into PC while connected. Detail reports with editable information can be print out into formal format.



Applications





Ordering Information

| Catalog No. | Description |
|--------------------|--|
| 1210000 | SpectroArt 200 Bio-spectrophotometer system, 100 - 240V, 50 - 60Hz |
| 1210021 | SpectroArt 200S Bio-spectrophotometer system complete with 1211005 for single drop analysis, 100 - 240V, 50 - 60Hz |
| Accessories | |
| 1211001 | Standard cuvette, 3.5ml 10mm lightpath, quartz, black wall, 2pcs |
| 1211002 | Semi-micro cuvette, 1.4ml 10mm lightpath, quartz, black wall, 2pcs |
| 1211003 | Micro cuvette, 700µl, 10mm lightpath, quartz, black wall, 2pcs |
| 1211015 | Micro cuvette 100µl, 10mm light path, z-8.5mm, black wall, 1pc |
| 1211016 | Micro cuvette for 30-50µl, 10mm light path, z-8.5mm, black wall, 1pc |
| 1211005 | Single Drop Fiber-Optic Ultra-Micro Cell 0.7 - 5µl, light path 1.0mm / 0.2mm, 1pc (TrayCell*) |
| 1211006 | Disposable cuvette, 3.5ml, 100 pcs / pk |
| 1211011 | Cap for TrayCell, light path 0.1mm, Quartz SUPRASIL® with aluminum mirror |
| 1211014 | Liquid Holmium Oxide wavelength reference standard |
| 1212001 | Thermal printer paper, 5 roll / pk |
| 1212011 | SpectroArt 200 single drop software upgrade package |
| 1211012 | PC software |

*TrayCell is a product from Hellma® and Hellma® is a registered trademark of Hellma GmbH & Co. KG.

Specifications

| Model | SpectroArt 200 | SpectroArt 200S |
|----------------------------------|---|-----------------|
| Light source | Flash Xenon Lamp | |
| Detector | 2048-elements linear silicon CCD array | |
| Display | 7" Touch screen TFT LCD | |
| Wavelength range | 200 – 800nm | |
| Wavelength accuracy | ± 1.5 from 200 – 800nm | |
| Abs / Photometric accuracy | ± 0.01nm @1 & 0.5AU | |
| Abs /Photometric repeatability | ± 0.01nm @1AU; ± 0.004nm @0.5AU | |
| Stray light | < 0.05% @ 600nm; < 0.1% @ 435nm | |
| Photometric noise | 0.003 @ 0AU, 550nm | |
| Spectral bandwidth | < 2nm | |
| Absorbance range | 0 – 3.5AU | |
| Data collection speed | 10 to 200ms | |
| Light path | 10mm | |
| Z-dimension | 8.5mm | |
| Multiple wavelength | 10 Max. | |
| Sample test repetition | 10 Max. | |
| Analytic data storage | 999 Max. | |
| Kinetic analysis range | 60 – 6000 sec. | |
| Communication port | RS 232 x 1, USB 2.0 x 2 | |
| Single beam | Yes | |
| Applicable cuvette types | Standard / Semi-micro / Micro-volume | |
| Pre-set single drop analysis | Option | Standard |
| DNA / RNA / Protein / Wavelength | Standard | |
| Kinetics / OD 600 / Scan / FOI | Standard | |
| PC software | Option | |
| Printer | Built-in | |
| dsDNA recommended working range | 10-100µg/ml / 100-8000µg/ml @single drop mode | |
| Physical dimensions | 320 x 255 x 150 mm(W x D x H) | |
| Weight | 4.5kg | |
| Power Input | 100 - 240V AC, 50 - 60Hz Max. 50W | |
| Certification | CE | |

The spec is subject to change without prior notice.



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