OPTIONAL SOFTWARE - E-SEF Enabled

SM1 Nucleic Acid and Protein - more advanced calculations:

Warburg and Christian	
DNA	260/280
DNA	260/280, 320
Protein	260/230
Protein	260/230, 320
Kalb and Bernlohr	
DNA	260/280
DNA	260/280, 320
Protein	260/230
Protein	260/230, 320

SM2 Molecular calculations
Molecular concentrations
Recovery of oligonucleotides
Phosphate concentration
Protein purity
Theoretical thermal melt

SM3 Protein Assay - Bradford 595nm

SM4 Bacterial Growth
Optical density at 600nm

SM5 Validation: Wavelength, Absorbance, Bandwidth etc

SM6 Method Storage for 30 methods security protected

ACCESSORIES AND SPARES

Cell holder for 50µL cells - type E	2020 39 00
Printer connection cable	8000 71 00
Dot matrix printer	8000 70 01
Spare deuterium lamp	2202 01 42
2 Certified wavelength filters with certificate	303 40 00
4 Certified Absorbance filters with certificate	594 99 00
Dust cover	2020 01 23

SPECIFICATION

Wavelength Range	190-370nm, 595 and 600nm
Wavelength Accuracy	±1nm
Wavelength Reproducibility	±0.1nm
Wavelength Calibration	Automatic at switch on
Wavelength Selection	Automatic for assay selected
Monochromator	Littrow 1200 lines per mm holographic grating
Optical Bandwidth	4nm
Straylight	Less than 0.02% at 280nm (Acetone)
Photometric Range	-0.3 – 3 Absorbance
Photometric Linearity	±1% or ±0.005, whichever is greater
Stability	Better than 0.001A/hour at 240nm constant T.
Real Time Clock	Timed and dated reports
Light Source	Deuterium lamp with life indicator
Printer Output	Centronics parallel port
Power Requirements	110-240V, 50/60Hz, 100W
Size and Weight	480 x 340 x 205, 17.6Kg, (18.5kg printer version)

GeneQuest™

BENEFITS

Full screen display of menus, prompts and results

Software options password enabled at any time by E-SEF

Storage for 30 user methods, password protected

Warning of poor sample transmission

Signal enhancement for poor sample transmission

Plot of curve fitted to standards

Full UV range available to create methods

ORDERING

Each GeneQuest analyser is supplied complete with an ultra microcell holder, power cable, operator's manual and short form operating instructions.

CE 2301 Analyser
190-370nm, 595 and 600nm
4nm optical bandwidth

CE 2302 Analyser
190-370nm, 595 and 600nm
4nm optical bandwidth
With integral printer

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TELEPHONE: 01223 420821 FAX: 01223 420475
E-MAIL: info@cecil-instruments.co.uk WEB SITE: www.cecil-instruments.co.uk

ISO 9000
CERTIFIED COMPANY

GeneQuest™

DNA / RNA ANALYSER

CECIL

GeneQuest™ DEDICATED TO DNA / RNA

Dedicated to Molecular Biology

The GeneQuest™ Analyser is a spectrophotometer dedicated to the requirements of the Molecular Biology Laboratory. Fully programmed methods include those for RNA, ds DNA, ss DNA, oligonucleotide primer, proteins, bacterial growth and cell culture measurements and molecular calculations, including theoretical thermal melt.

Ultra Micro-Samples

Measurements are possible for a wide range of sample volumes, from 2000µL to 5µL using an appropriately selected cell in the ultra microcell holder fitted as standard in the GeneQuest™.

Simplicity of Operation

Insert the reference, press ZERO, then insert the sample and press RUN to obtain a fully documented report complete with header, sample number and space for the operators name etc. Operation could not be more simple.

Operators may create and store up to 30 of their own methods with the method storage option.

Automatic Wavelength Selection

All the fully programmed methods are selected from a menu and displayed with headers, prompts and details on the large display screen on which information may be scrolled for viewing.

All wavelengths for any given assay are automatically selected and measured. Results are displayed on the screen and a timed and dated printout is available on an external printer, or the internal printer of the CE2302.

Enhanced Performance

The excellent accuracy of the GeneQuest™ for normal samples is further enhanced for poorly transmitting samples by an automatic integration process initiated in response to an alert message.

Validation

To fulfil legislative requirements and GLP, onboard software allows for performance validation using filter sets calibrated by Cecil Instruments and supplied with calibration certificates traceable to NPL standards. Methods for liquid samples are also provided.

STANDARD SOFTWARE

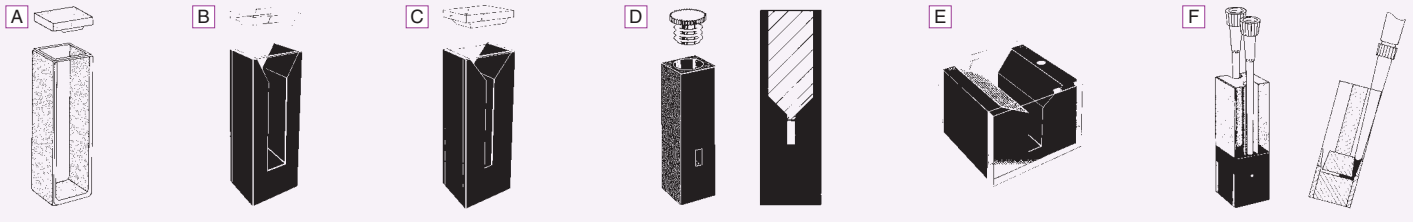
- A260/A280 Ratio
- A260/A280 with background correction at 320nm
- A260/A230 Ratio
- A260/A230 with background correction at 320nm
- ss DNA concentration
- ds DNA concentration
- RNA concentration
- Direct UV method for protein at 280nm

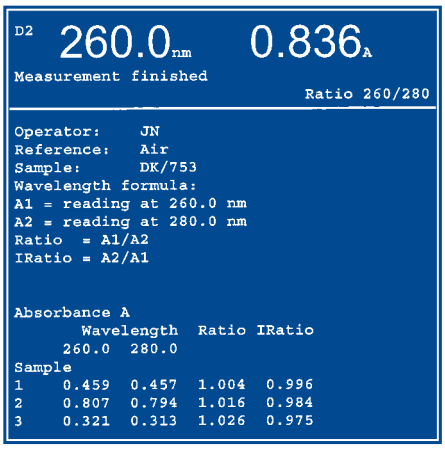
SAMPLE CELL SELECTION

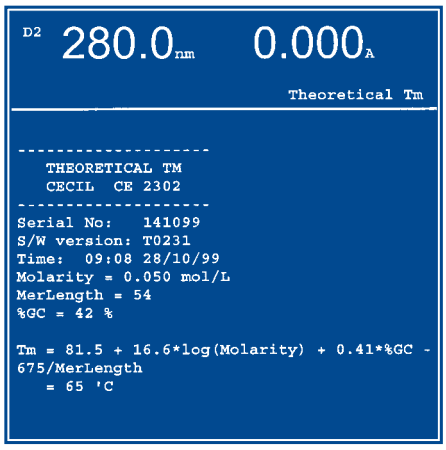
A range of UV transmitting silica cells is available. The listing given here enables the cell appropriate to the sample volume to be chosen. All cells except the standard must be of the self masking type.

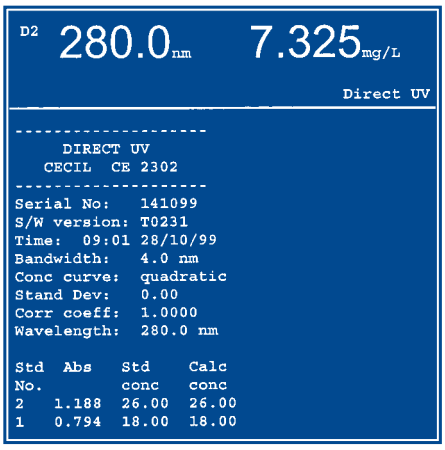
Using a 10mm pathlength cell an absorbance value of 1 is estimated for a concentration of 50µL/mL of ds DNA

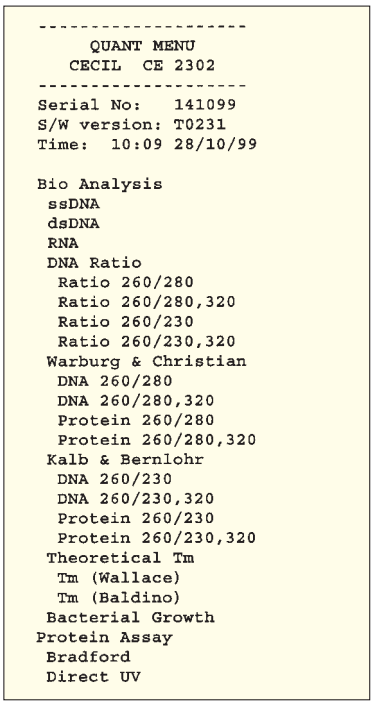
Volume (µL)	Pathlength (mm)	Cell Description	Cell Type	Part Number
2000	10	Standard	A	202 07 26
500	10	Semi-micro, thick base	B	202 07 57
250	10	Micro, thick base	C	202 07 38
70	10	Ultra micro	D	202 07 15
50	10	Ultra micro use holder 2020 39 00	E	2020 07 01
10	10	Ultra micro, pipette filling	F	202 07 64
1000	5	Standard - use spacer	A	202 07 25
5	5	Ultra micro, pipette filling	F	202 07 63

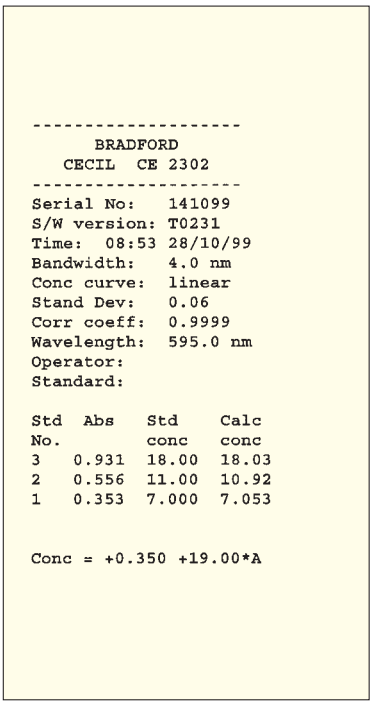












Assays Displayed on Screen

Shown here are three screen displays of typical assays, for protein by the direct UV method, ratios at 260/280nm and a theoretical melt Tm calculation.

Printout of Assays

The printouts shown here are for typical assays using the Bradford method at 595nm, the determination of ds DNA, and the results of the Kalb Bernlohr determination of nucleic acids and proteins.

A plot of any curve or straight line fitted to a series of standards is always available to verify the fit.

The printout on the left of this page shows a list of all the available methods offered by the GeneQuest™.