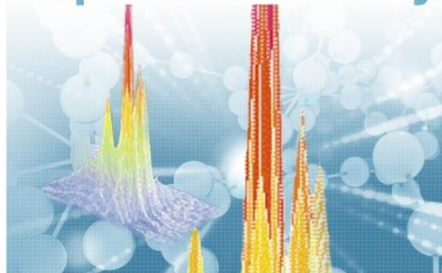


Inspired sensitivity.



Creative solutions to any challenge.

News in UV/Vis and benchtop NMR October 2017

Essential, inspired UV-Vis.



Simple applications to sophisticated analysis.



● Thermo Scientific UV-Visible Spectrophotometers

Whole range of UV/Vis systems for all kind of applications



NanoDrop uUV systems



UV-Vis Product Portfolio - Focus Markets

Education

- SPEC 200
- Genesys 10/30

Research

- Evolution 200/300

Analytical

- Evolution 200/300

QA/QC

- Evolution 200/3000
- Genesys
- SPEC200



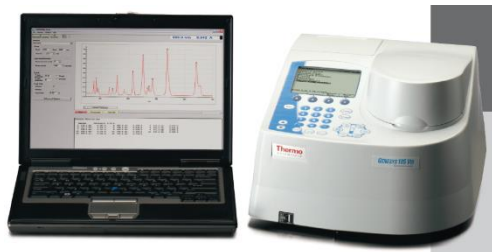
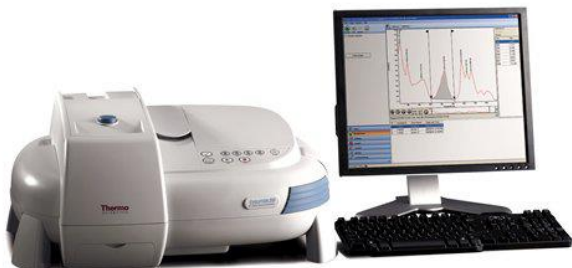
all our Vis spectrophotometers



- Are “State of the art”
- All are scanning systems
- 325 – 1100 nm
- Resolution 5nm or better
- USB or Lan connection
- USB or Lan printer
- 64-bit software for MS Windows 7 or above
- A lot of accessories, sipper and cell changer
- A wide range of Path length 1mm to 100mm
- Test-tube holder prepared for OD600 method

- Genesys 10s with standard 5+1 automatic cell changer

all our UV/Vis spectrophotometers



- Xenon lamp for all UV models like “State of the art”
- Dual / double beam
- 190 – 1100 nm
- Resolution 1.8nm or better (down to 0.5nm)
- USB or Lan connection
- USB or Lan printer
- 64-bit software for MS Windows 7 or above
- One Software package for the whole range
- Ready for auto sampler software
- A lot of “smart” accessories
- A wide range of Pathlength 1mm to 100mm

- Genesys 10s with standard 5+1 automatic cell changer

Evolution 220 New area in UV/Vis

- Fastest scanner 12000 nm/min with 0.2nm data rate
- Local and PC Version with the same Software
- **A**pplication **F**ocused **B**eam **G**eometry
- 8x 80 μ l cells for the cell changer can be used



Application Focused Beam Geometry **UNIQUE**

- Optical system of the instrument built around application needs
- Delivers optimized performance



Micro AFBG



Fiber AFBG



Materials AFBG

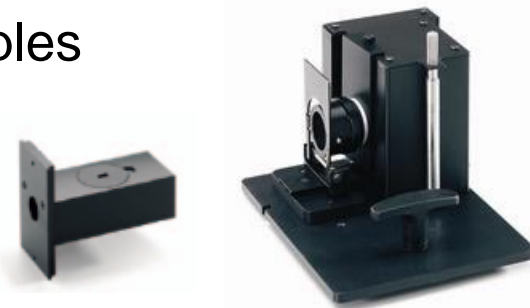


Smart Accessories for all Evolution Systems

- Large range of accessories for liquid and solid samples

- Research

- Rapid mixing Kinetics (sampling rate 20ms)
- Solids measurement – transmittance and reflectance
- DNA melting



- Routine

- Multi-cell changers
 - Linear 8 and 16
 - Rotary 7 incl. 7x7
- Peltier heat/cool
- Recirculator heat/cool
- Sipper
- auto sampler option



Smart 8-Cell Peltier System



Key Features of Evolution 200/300 for Pharmaceuticals

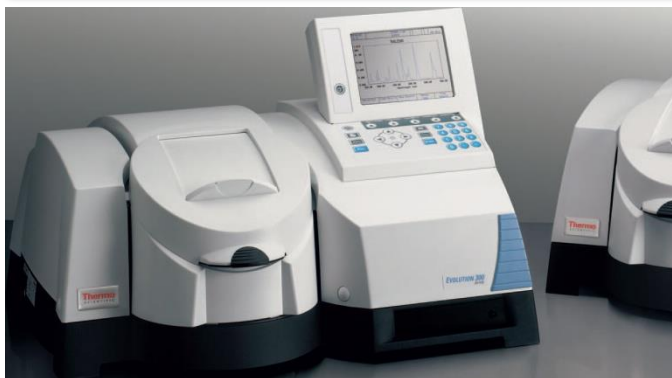


- 21 CFR Part 11 Compliance with UV Software
- Factory prepared Validator
- Automated Performance Verification
- Unique mercury lamp for testing
Wavelength accuracy
- UV software used for performing routine bio assays to advanced studies such as kinetics assays



Special Features of Evolution 300

Evolution 300



- High performance in both sensitivity and reliability
- A wide range of advanced applications
- Advanced quantitative analysis and bio assays
- Dual cell changer configuration
 - Autosampler connectivity

Features and Benefits:

Features of Product	Benefits to user
Variable Spectral Bandwidths from 0.5 nm to 4.0 nm	Capability to optimize performance for advanced tests and improved sample identification and quantification
Extensive selection of smart accessories for different applications	Flexibility to perform a wide range of tests with different sample types
Powerful principal software VISION ^{pro} and other optional software packages for application and security options	Ease of use and simplification of advanced tests

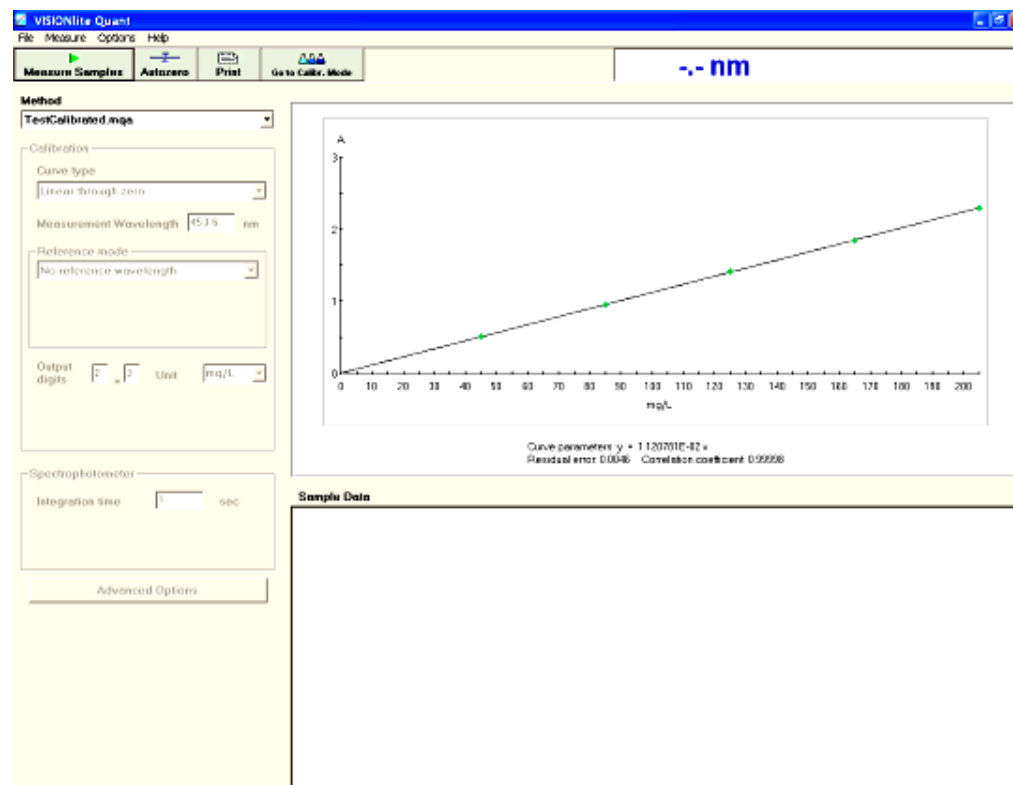
Dual Cell Changer Configuration

- The 7 x 7 sample-to-reference configuration is unique to the Evolution 300 spectrophotometers
- 7 x 7 is perfect for Quantification and kinetics studies where each sample must be compared with its own blank



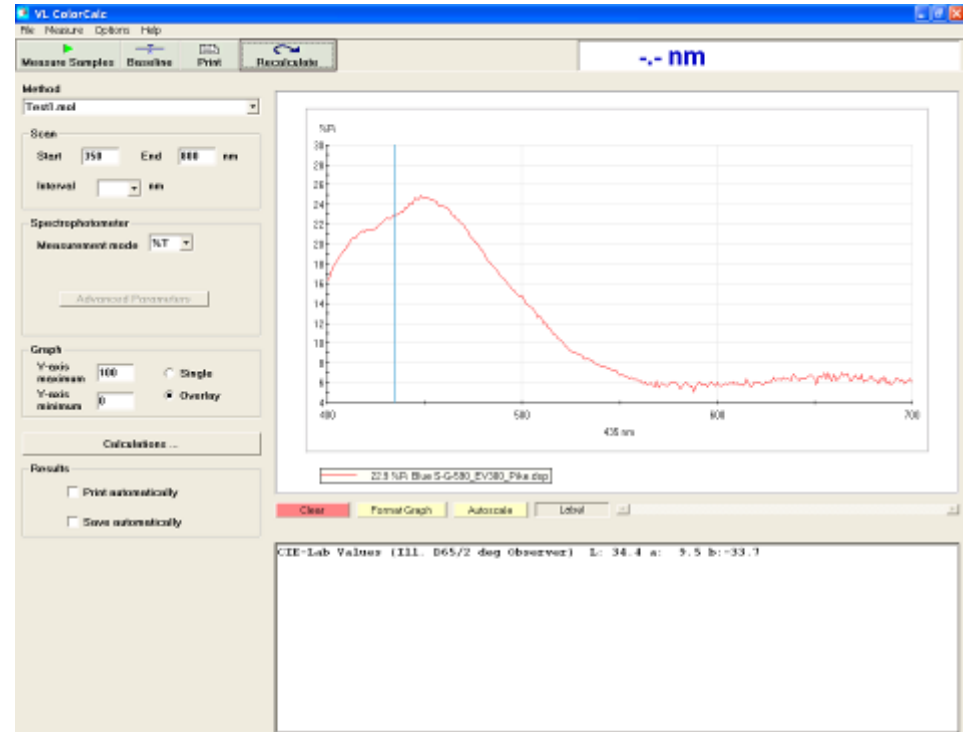
VISIONlite for the whole Vis and UV/Vis range

- VISIONlite – A simplified software interface offering
 - Fixed windows showing
 - method
 - Scan graph or data
 - Calculation results
 - Live display
 - Highly intuitive interface
 - Limited choices and options make the software easy to use for novice or occasional users



VISION^{lite} ColorCalc Basic or Advanced

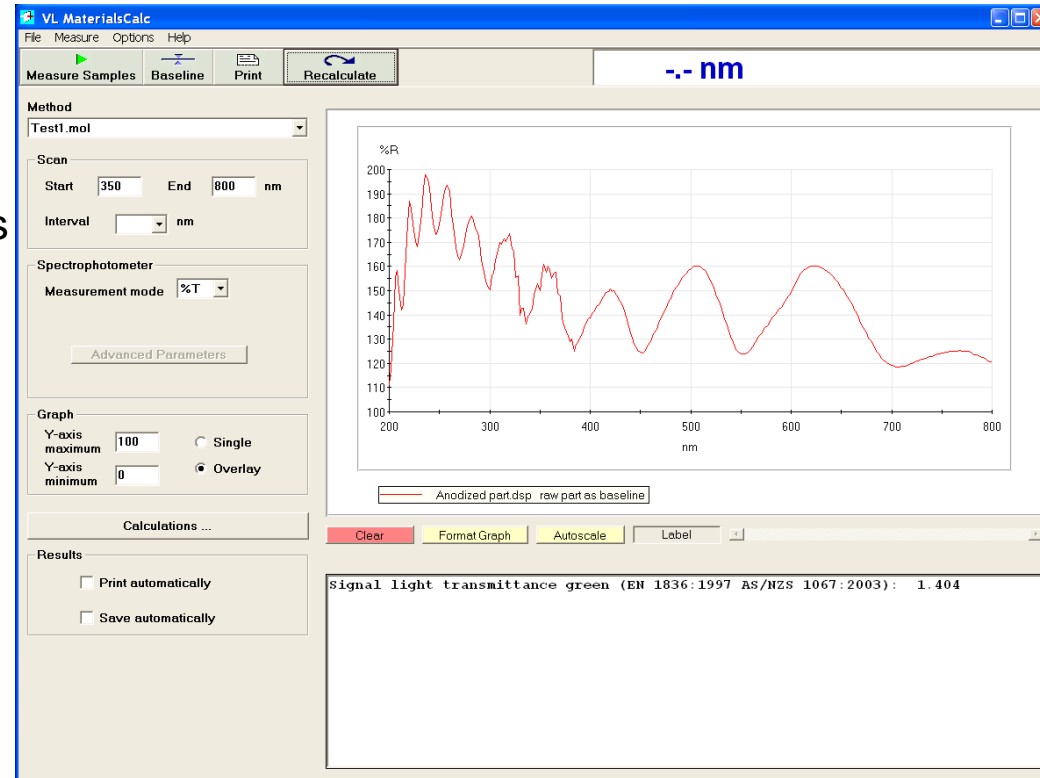
- VISION^{lite} ColorCalc adds a suite of calculations for color including
 - XYZ (Tristimulus)
 - xyY (Chromaticity)
 - CIE L*a*b*
 - CIE L*c*h*
 - Whiteness indices
 - Yellowness indices
 - APHA
 - Gardner
 - Iodine
 - Wine color
 - others



CIE-Lab Values (I11. D65/2 deg Observer) L: 34.4 a: 9.5 b: -33.7

VISION/ite MaterialsCalc

- VISION/ite MaterialsCalc Adds a suite of calculations for materials including
 - Luminous transmittance
 - Primarily for goggles/glasses
 - Haze
 - Luminous transmittance of plastics
 - Color recognition
 - UV Protective glasses
 - Solar protection
 - Fabrics
 - Custom calculations
 - Limit calculations
 - Create your own analyzer with custom pass/fail limits



The picoSpin Family of NMR Spectrometers

- **picoSpin 45 Series II**

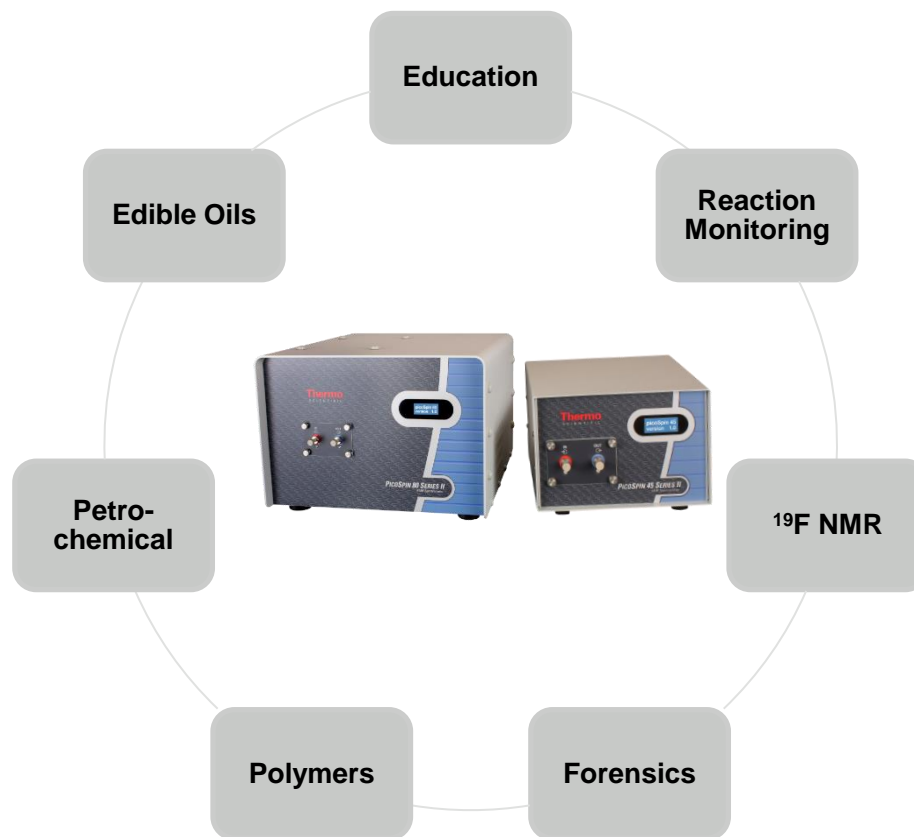
- 45 MHz Larmor Frequency
- Robust Capillary Cartridge
- 30 μ L Sample Volume
- Compact & Portable (10.5 lbs)
- Wireless Operation
- Embedded Web Server



- **picoSpin 80 Series II**

- 82 MHz Larmor Frequency
- Robust Capillary Cartridge
- 40 μ L Sample Volume
- Compact & Portable (43 lbs)
- Wireless Operation
- Embedded Web Server

Who Wants to Buy a picoSpin NMR Spectrometer?



Thank you