

NanoDrop Products



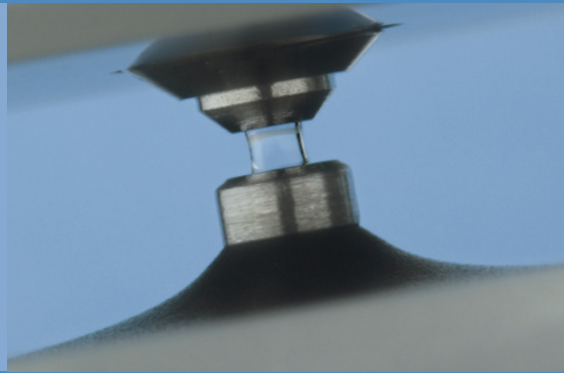
Thermo Scientific
NANO DROP 2000 | 2000c
Spectrophotometer

Thermo Scientific
NANO DROP 8000
Spectrophotometer

Thermo Scientific
NANO DROP 3300
Fluorospectrometer



Pipetting 1 μ l onto pedestal

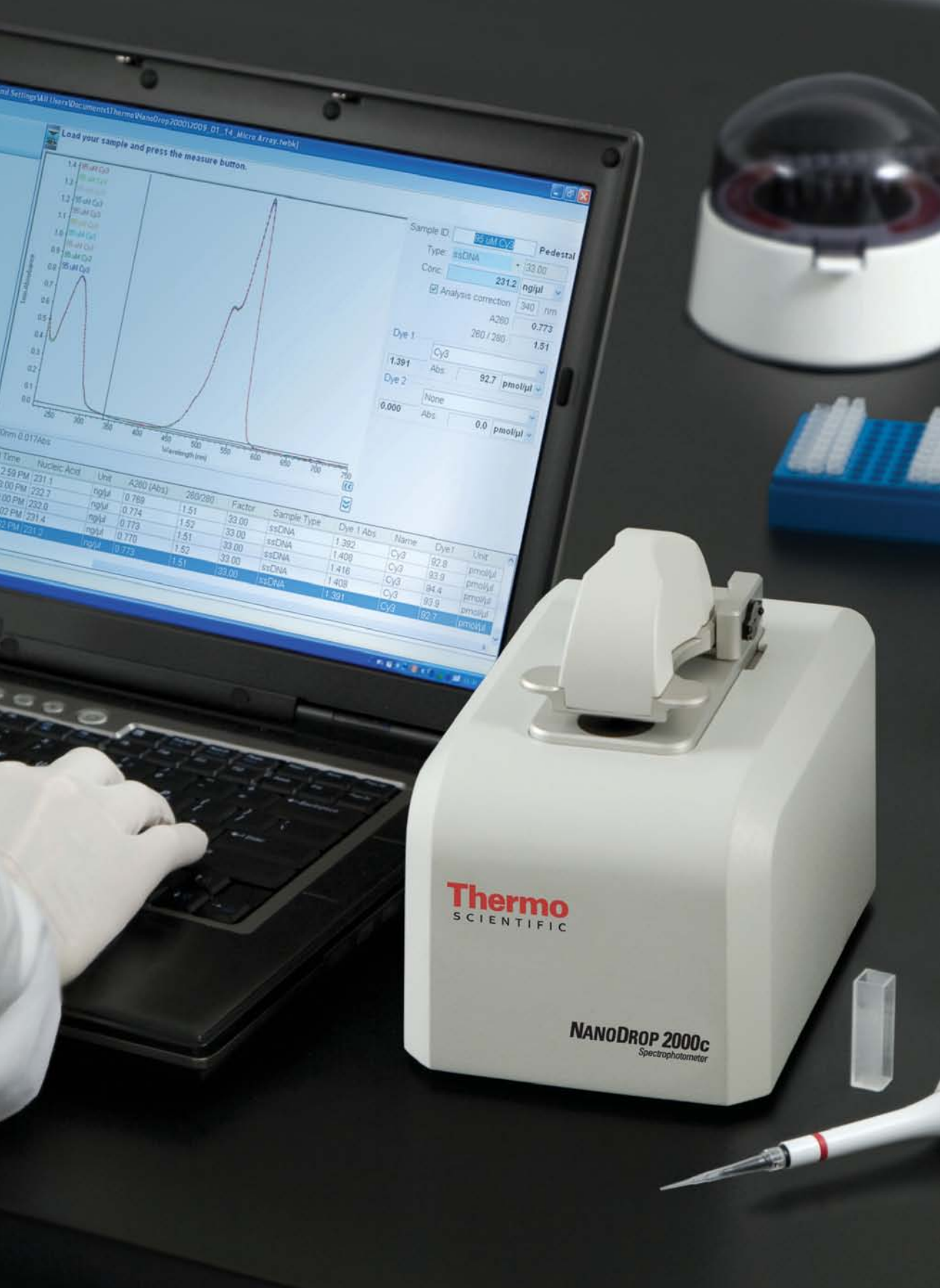


Measuring 1 μ l sample

As the industry leader in micro-sample quantitation, Thermo Scientific NanoDrop Products meet the needs of today's laboratory scientist—instruments that are smart, simple and robust. We combine our extensive expertise in micro-sample analysis with an in-depth understanding of real-life applications to deliver the latest in UV-Vis and Fluorescence instrumentation.

Advantages of Our Innovative Technology Include

- **Small sample size:** Our patented sample retention system allows you to analyze samples as small as 0.5 μ l quickly and easily.
- **Fast and easy sample processing:** Fast—measure a sample in less than 5 seconds. Easy—simply pipette a sample onto the pedestal and measure, then wipe the pedestal and move to the next sample.
- **Versatile measurement options:** You can now measure a micro-volume sample directly on a pedestal or use a cuvette when needed—all within the same instrument.
- **Small footprint:** We understand the need to maximize space in a laboratory, so our instruments are ultra-compact.
- **No dilutions:** Even high concentration samples can be measured without dilutions.
- **Unsurpassed technical support:** Our customer service experts are life science specialists with extensive experience in micro-volume analysis, so we are able to help with specific applications to ensure optimal instrument use.
- **Innovative software:** Our instruments are both powerful and easy to use, and as always free software updates are available for downloading on our website.



Thermo Scientific NanoDrop 2000 Spectrophotometer

Everything You Loved in the Thermo Scientific NanoDrop 1000, Plus More

The New Thermo Scientific NanoDrop 2000 delivers the same high-quality performance you've come to expect from our full-spectrum UV-Vis instruments, and it provides many enhancements:

- **Fast measurement time** of less than five seconds
- **New, innovative software** that allows you to create custom methods and provides flexible options to design reports and export your data
- **Improved capability for proteins** with low wavelength absorbance, such as peptides at 205 nm
- **Sample volumes as small as 0.5 μ l**, which is ideal for precious high concentration samples
- **Higher concentration measurement capability** up to 15,000 ng/ μ l (dsDNA), which eliminates the need to dilute highly concentrated samples

Thermo Scientific NanoDrop 2000c Spectrophotometer

The Best of Both Worlds in One Spectrophotometer

The Thermo Scientific NanoDrop 2000c does everything the NanoDrop™ 2000 does, plus more. With its unique, patent-pending technology, the NanoDrop™ 2000c combines micro-volume pedestal technology and cuvette capability in a single instrument. This innovative technology allows you the flexibility to choose the best measuring technique for your samples:

- **Innovative technology** that makes this the only UV-Vis spectrophotometer your lab will ever need
- **Expanded measurement options** for all types of samples—you choose the measuring option right for your sample: cuvette or pedestal
- **Broader concentration range** for measuring very low concentrations and very high concentrations
- **Cuvette capability** allows for kinetics (time or time/temperature studies) and cell culture (OD 600) measurements



Thermo Scientific NanoDrop 8000 Spectrophotometer

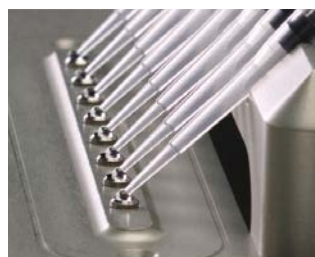
Process More Samples in Less Time

With the Thermo Scientific NanoDrop 8000, you can measure more samples in less time without sacrificing the reliability and easy-to-use technology of the single sample model. The NanoDrop™ 8000 spectrophotometer takes full-spectrum UV-Vis absorbance measurements of up to eight samples simultaneously. Using an eight-channel pipette to dispense samples on a linear array of pedestals, you can easily measure 96 samples in less than six minutes. This instrument offers:

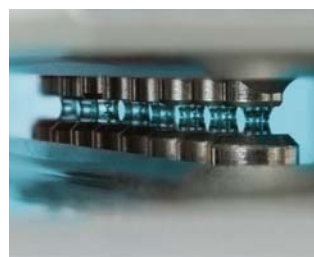
- **Improved productivity** with capability of analyzing up to eight 1 µl samples at one time
- **New, innovative software** for creating custom methods with unit selection, oligo calculator and flexible options to design reports and export data
- **Increased efficiency** with the Sample Position Illuminator, which reduces error by keeping track of the samples to be measured
- **High throughput** for environments such as biorepositories, genotyping facilities and quality control labs
- **Improved productivity for busy labs** where multiple users currently use the single sample model



Sample Position Illuminator



Multi-Sample Loading



Multi-Sample Measurement





Thermo Scientific NanoDrop 3300 Fluorospectrometer

Full-Spectrum Fluorescent Analysis

Using our patented technology, the Thermo Scientific NanoDrop 3300 Fluorospectrometer performs broad spectrum fluorescent analysis in a versatile, high-performance instrument. The NanoDrop™ 3300 significantly lowers the mass detection limit more than an order of magnitude, compared to conventional fluorometers. The NanoDrop 3300 is a powerful instrument that offers many benefits:

- **Sample size as small as 1 µl**, which conserves precious samples for other applications and testing
- **Wide excitation range** without the need to change filters or use of a monochromator
- **Multiple emission profiles** from a single sample by exciting multiple fluorophores simultaneously due to broad excitation wavelength range
- **Easy to use** even for those with limited fluorescence expertise

NanoDrop 3300 Fluorospectrometer Applications

UV LED max = 365 nm; equipped with cut filter that eliminates excitation above 400 nm

Example Applications:

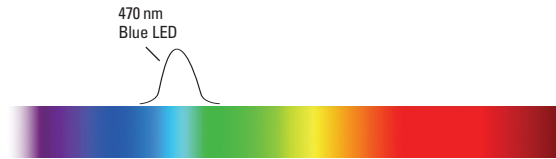
GFP wt
Hoechst 33258
4-MU
Q Dots various
Fluoraldehyde OPA
Fluorescamine
FRET



Blue LED max = 470 nm

Example Applications:

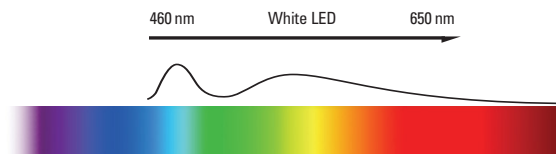
GFP wt
eGFP
FITC-FAM
Alexa 488
PicoGreen
RiboGreen
Alexa 555
B-Phycoerythrin
Q Dot various
SybrGreen
SybrGold
FRET



White LED range = 460 – 650 nm; uses virtual filtering

Example Applications:

Cy3, Alexa 555
Alexa 568
Cy5, Alexa 647
Sulforhodamine 101
5-CMTR
Q Dots various
TET
Hex
Molecular beacons



FRET

Real-time PCR

Small Molecule
Crystallization

Sequencing
Histocompatibility

Microarrays

DNA RNA

Proteins

Antibodies

Genotyping

Microgenomics

Specifications

	NanoDrop 2000 2000c (pedestal)	NanoDrop 8000	NanoDrop 3300
Instrument Type	Spectrophotometer	Spectrophotometer	Fluorospectrometer
Minimum Sample Size	0.5 µl	1 µl	1 µl
Sample Number	1	up to 8	1
Path Length	1 mm (auto-ranging to 0.05 mm)	1 mm (auto-ranging to 0.2 mm)	N/A
Light Source(s)	Xenon flash lamp		3 light emitting diodes (LEDs)
Excitation Maxima of LEDs	N/A		UV: 365 nm, Blue: 470 nm, White: 460 – 650 nm
Detector Type	2048 - element linear silicon CCD array		2048 - element linear silicon CCD array
Wavelength Range	190 – 840 nm	220 – 750 nm	400 – 750 nm
Wavelength Accuracy	1 nm		1 nm
Spectral Resolution	≤ 1.8 nm (FWHM at Hg 253.7 nm)	3 nm (FWHM at Hg 546 nm)	8 nm (FWHM at Hg 546 nm)
Absorbance Precision	0.002 (1 mm path)	0.003 (1 mm path)	< 5% CV (10 nM fluorescein)
Absorbance Accuracy	2% (at 0.76 at 257 nm)		N/A
Absorbance Range	0.02 – 300 (10 mm equivalent)	0.02 – 75 (10 mm equivalent)	N/A
Fluorescence Range	N/A		> 4 logs fluorescein
Detection Limit	2 ng/µl (dsDNA)	2.5 ng/µl (dsDNA)	< 1 fmol fluorescein
Maximum Concentration	15,000 ng/µl (dsDNA)	3,700 ng/µl (dsDNA)	N/A
Measurement Time	< 5 seconds	< 20 seconds	2 – 10 seconds
Footprint	14 X 20 cm	24 X 32 cm	14 X 20 cm
Weight	2.0 kg	3.4 kg	1.5 kg
Sample Pedestal Material of Construction	303 stainless steel and quartz fiber		303 stainless steel and quartz fiber
Operating Voltage	12 vdc		5 vdc (all power supplied by USB port)
Operating Power Consumption	12 – 18 W (max 30 W)	30 W	2 W
Standby Power Consumption	5 W	6 W	1 W
Software Compatibility	Windows® XP and Vista™ (32 bit)	Windows® 2000, XP and Vista™ (32 bit)	

Specifications NanoDrop 2000c — cuvette:

- Beam Height: 8.5 mm
- Heating: 37 ± 0.5 °C
- Stirrer: 150 – 850 rpm
- Path Length: 10, 5, 2, 1 mm
- Absorbance Range: 0.002 – 1.5 A
- Detection Limit: 0.4 ng/µl (dsDNA)
- Maximum Concentration: 750 ng/µl (dsDNA)
- Measurement Time: < 3 seconds
- Weight: 2.1 kg

All NanoDrop instruments are approved to CE and UL/CSA standards.

www.nanodrop.com | 302-479-7707