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## Price List for Pulsed-Laser Photoacoustics (effective June 2008)

*Quantum Northwest is the only company that specializes in Pulsed-Laser Photoacoustics. Please contact us to describe any special needs you have. We will be pleased to discuss your options and provide a quotation.*











### Packages for Pulsed-Laser Photoacoustics:

PAS 1000	Complete instrumentation and software for pulsed-laser photoacoustics (see below for list of components)	\$38,700
FLASH 300/PAS	FLASH 300 with photoacoustic option, Panametrics 1 MHz transducer and Panametrics 5662 preamp	\$7,235

### Components of the PAS 1000:

Optical components, diode trigger and energy probes	<ul style="list-style-type: none"> <li>• Beam splitter, filter mount, and fast photodiode to provide timing trigger</li> <li>• Beam splitter, filter mount and pyroelectric energy probe for measuring incoming pulse energies</li> <li>• 6-position filter wheel for repeatable intensity control</li> <li>• Shutter to block incoming beam when it is not needed</li> <li>• Adjustable rectangular aperture for precise control of the illuminating volume in the sample</li> <li>• 150 mm focal length fused silica rectangular lens for focusing the beam in the cuvette</li> <li>• Filter mount and pyroelectric energy probe for measuring transmitted pulse energies to determine <i>in situ</i> absorption</li> <li>• Melles Griot 03FSQ011 neutral density filter set for attenuation of the incoming laser radiation and use as beam splitters (0.04, 0.1, 0.3, 0.5, 1.0, 2.0, 3.0 nominal ODs) plus extra blank</li> </ul>
Temperature-controlled cuvette holder and photoacoustics hardware	<ul style="list-style-type: none"> <li>• FLASH 300 Temperature-Controlled Cuvette Holder for Laser Spectroscopy</li> <li>• TC 125 Temperature Controller to provide control with a precision of <math>\pm 0.02</math> °C within a possible range of -40.00 °C to +105.00 °C</li> <li>• Photoacoustics option for the FLASH 300</li> <li>• Panametrics V103RM 1 MHz transducer</li> <li>• Panametrics 5662 Ultrasonic Preamp</li> </ul>
Instrument control and data acquisition electronics	<ul style="list-style-type: none"> <li>• PAS 1000-IU Interface Unit connects to your computer through USB</li> <li>• National Instruments NI-488.2 GPIB-USB-HS</li> <li>• National Instruments NI-USB-6009 14-bit, 48KS/S Multifunction I/O</li> <li>• Tektronix TDS 2012 100 MHz digitizing oscilloscope with GPIB option</li> </ul>
Temperature control, data acquisition, data processing and data analysis software	<ul style="list-style-type: none"> <li>• Serial Control V. 2.20 for external computer control of the TC 125 Temperature Controller, including complex ramping functions</li> <li>• PAS 1000 data acquisition program</li> <li>• PAS 1000 data processing program</li> <li>• Sound Analysis V1.50D Deconvolution and kinetic analysis of photoacoustic waveforms</li> </ul>

## Individual components and accessories:

model number	description	price	image
FLASH 300	Stand-alone cell holder with vertical and horizontal adjustments, four optical ports, set of optical slits	\$5,650	
PAS 300	Photoacoustics option for the FLASH 300	\$400	
WJ 300	Windowed jacket for the FLASH 300 with three AR-coated fused silica windows and cover for accessory port	\$820	
TR-PREAMP	Panametrics 5662 preamp (battery operated), cable included	\$835	
TR-V103	Panametrics 1 MHz transducer	\$350	
BATH 100	circulating bath consisting of a submersible pump, plastic bucket and hose fitting	\$109	
BATH 100/OS	same as the BATH 100 without the plastic bucket (saves overseas shipping cost)	\$99	
SER 2.2	serial interface, USB cable and computer program for external computer control	\$149	
PR-SA	Sound Analysis (v 1.50D) program for deconvolution and analysis of photoacoustic waveforms	\$195	
SLITS-300	Set of 19 assorted optical slits for the FLASH 300	\$30	



The FLASH 300 price includes a temperature controller. Each FLASH 300 is matched to a TC 125 Temperature Controller and calibrated against a NIST-traceable thermometer. The TC 125 supports an external temperature probe and complex temperature ramping functions.

*All prices are FOB Liberty Lake, WA, USA, for domestic sales to USA and Canada. Additional charges may apply to shipments overseas. Prices are subject to change without notice.*

*Warranty: Two years parts and labor on all equipment manufactured by Quantum Northwest.*



**QUANTUM**  
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