# Nanosecond
Kinetic Spectrometer

PROTEUS is a complete turnkey nanosecond transient spectroscopy instrument with extensive spectral and temporal coverage. Its modular design allows for extra flexibility in the experimental setup. **PROTEUS** is used for monitoring photoinduced optical absorption changes. It utilizes a continuous recording method in which a photo-detector monitors the transmittance of the sample at a set wavelength in a continuous manner, before, during, and after the initiating laser pulse.

The detector output is fed to the digital oscilloscope, which acquires the waveform and stores it for eventual processing. Thus recording of the V(t) profile is done in real time. Repeating the process over a series of wavelengths allows the investigator to build up the dynamic surface for the light-induced transient, which is capable of providing rate data at different wavelengths and time-dependent spectra.

Specifications . . .

- **Spectral Range: UV-NIR (300-1600 nm)**
- **Time Resolution: 5 ns**
- **Time Window: 100 s**
- **Detectors: Amplified Si And InGaAs photodiodes**
- **Digitizer: 9-Bit 300 MHz Bandwidth, 2.5 Gs/sec Faster Digitizers Are Optional**
- **Data Format: Individual Kinetics In A Form of An ASCII CSV File Multiple Kinetics Can Be Easily Combined Into 3-D Wavelength-Time-Absorbance Data Matrix In SURFACE XPLORER**
- **Software: PROTEUS 3.x LabView Based Software – The Software Allows For Full Experiment Automation – Supports Absorption, Emission, And Emission Corrected Absorption Measurements**
- **Dimensions: W-50" x L-18" x H-13" (W-1,270 x L-457 x H-330 mm)**
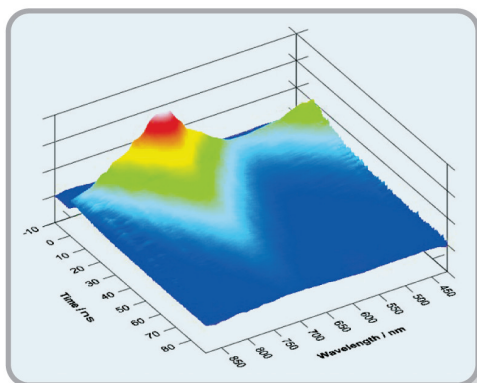
The Proteus spectrometer has been consistently producing high quality data which has led to publications in peer-reviewed journals such as Journal of the American Chemical Society, Inorganic Chemistry, Journal of Physical Chemistry C and Dalton Transactions.

As this reliable system continues to produce high quality data, more publications are sure to come in the future.

Dr. Aaron Rachford
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Features

User Friendly Software

Broad Spectral Range (UV-NIR)

Requires microJ Pulse Energy

Adjustable Spectral Resolution

Flexible Optical Setup With Fiber Coupling Option

Large Detector Dynamic Range

Robust Photodiode Detectors

Supports 1 kHz Lasers