KRONOS

> *Using Kronos has resulted in students understanding fast reactions. We are utilizing it in my physical chemistry class and I am completely satisfied with it.*
>
> *It is very easy to use and we are getting much use out of it, especially for undergraduate research.*
>
> **Dr. Daniel J. McLoughlin**
> *Xavier University*

Features

Extremely User Friendly

Compact With USB Interface

UV-VIS Spectral Range

Microsecond Time Resolution

High Sensitivity

No Laser Required

Safe To Use Without Eye Protection

Can Be Easily Moved Without The Need For Realignment

No Installation Required

Comes With Laboratory Manuals, Sets of Chemicals, Comprehensive Software, And A PC

Portable Microsecond
Flash Photolysis Spectrometer

KRONOS is a portable flash photolysis spectrometer designed for transient absorption and emission measurements on the microsecond and longer time scale. It is targeted mainly as a chemical kinetics experiment in university or high school teaching laboratories. **KRONOS** can measure solid and liquid samples in transmission as well as emission modes. The **KRONOS** patent-pending design utilizes a Xe arc flash lamp as an excitation source, which allows for wavelength tunability.

The photoinduced transient species are interrogated by passing the output of a white LED through the sample. An LED source provides superior stability and low noise. After passing through the sample, the probe light passes through an interference filter which restricts the detector to viewing a 10 nm wide segment of the white light spectrum The detector voltage output is digitized and transferred to a PC for generation of a kinetic trace and for further manipulations.

Specifications . . .

- **Spectral Range: 390-700 nm**
- **Detector: Si Photodiode**
- **Digitizer: Built-In 16-bit, 250 kHz Bandwidth.**
- **Time Resolution: 15 Microseconds**
- **Built-In Excitation Light Source: Xe Arc Flash Lamp**
- **Built-In Probe Light Source: Broadband LED**
- **Sensitivity: Typical Background Noise In Kronos Is Within 0.2 mOD (single shot)**
- **Software: KRONOS 3.x LabView Based Software Supports Absorption And Emission Measurements**

Pd Porphyrin/Water/Ar @450 nm

Products For Cutting Edge Photoscience . . .