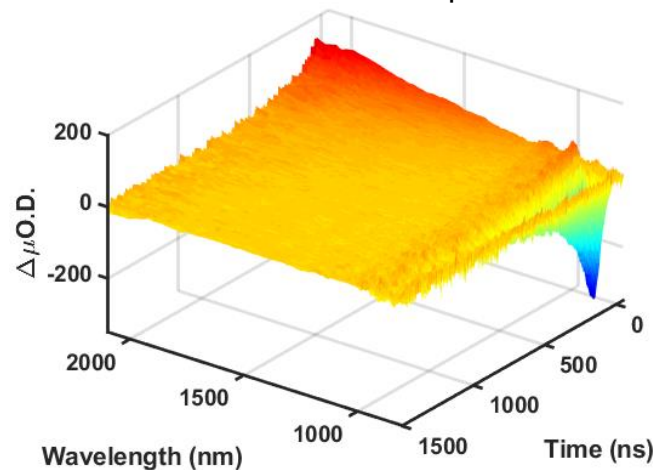


The enVISION benefits

- Broad-band UV-NIR ns TA spectrometer (250 – 2500 nm)
- Ease of use similar to a UV/Vis
- Unprecedented 100 Δ nanoO.D. detection limit* with 5 ns time and 2.5 nm frequency resolution
- True one-box, turn-key system; no need for an external pump source – can be modified to operate with existing pump source as desired
- Flexible sample geometry – easily switch between transmission and reflection within seconds
- No special laboratory requirements – locate on lab bench or optical table



Applications

- Photochemistry
- Photophysics
- Photocatalysis
- Photovoltaics
- Biochemistry
- Materials Science

NANOSECOND UV-NIR TA SPECTROSCOPY WITH UNPRECEDENTED SENSITIVITY AND EASE OF USE

The enVISION is the first broadband, nanosecond UV-NIR transient absorption (TA) spectrometer in a true one-box platform (including pump laser and all electronics). The inspiRe sets the standard for mid-IR TA spectroscopy with the simplicity of an UV/Vis measurement. Our patent-pending detection technology enables an unprecedented 100 Δ nanoO.D. detection limit and full 2D frequency and time resolution. Our patent-pending design enables rapid switching between transmissive and reflective sample geometries for photophysics and photocatalysis studies.

Ultrahigh sensitivity enables new regimes of behavior in TA spectroscopy not accessible by other means

The ultrahigh sensitivity of the enVISION enables nanosecond TA spectroscopy under new regimes of behavior inaccessible with any other system. UV-NIR TA measurements can now be performed with pump intensities comparable to operating conditions of photovoltaic and photocatalytic systems** so insights from spectroscopy can be directly applied to understand functional devices and photocatalytic mechanisms. Protein and enzyme reaction dynamics can be investigated at low concentrations of biochemical relevance. The high sensitivity enables fast data collection for high throughput and ease of use without the training and maintenance required with ultrafast laser systems.

Reliability and Ease of Use

Our patent-pending detection technology enables unprecedented suppression of noise for ultrahigh sensitivity, enabling the use of a robust laser and UV-NIR light sources that cover the entire spectral range from 250 – 2500 nm. This enables us to deliver state of the art nanosecond UV-NIR TA spectrometers with the ease of use, low maintenance and reliability of a UV/Vis.

The fully integrated, one-box system includes everything: light source, excitation laser, detection system, and all electronics. State of the art TA spectroscopy measurements can now be performed with little training, making the system ideal for user facilities, multi-disciplinary research groups, undergraduate labs as well as advanced users seeking state of the art performance.