

# HELIOS

## Femtosecond Transient Absorption Spectrometer

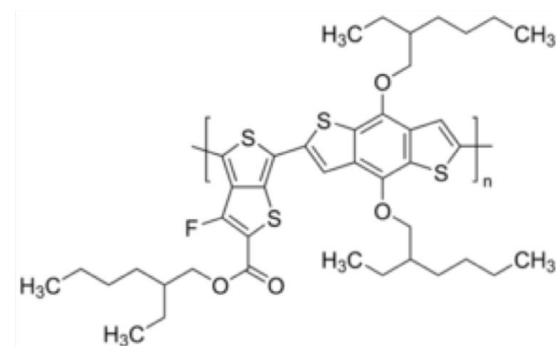
Femtosecond Transient Absorption of PTB7 Short Wave Infrared (SWIR) Probe



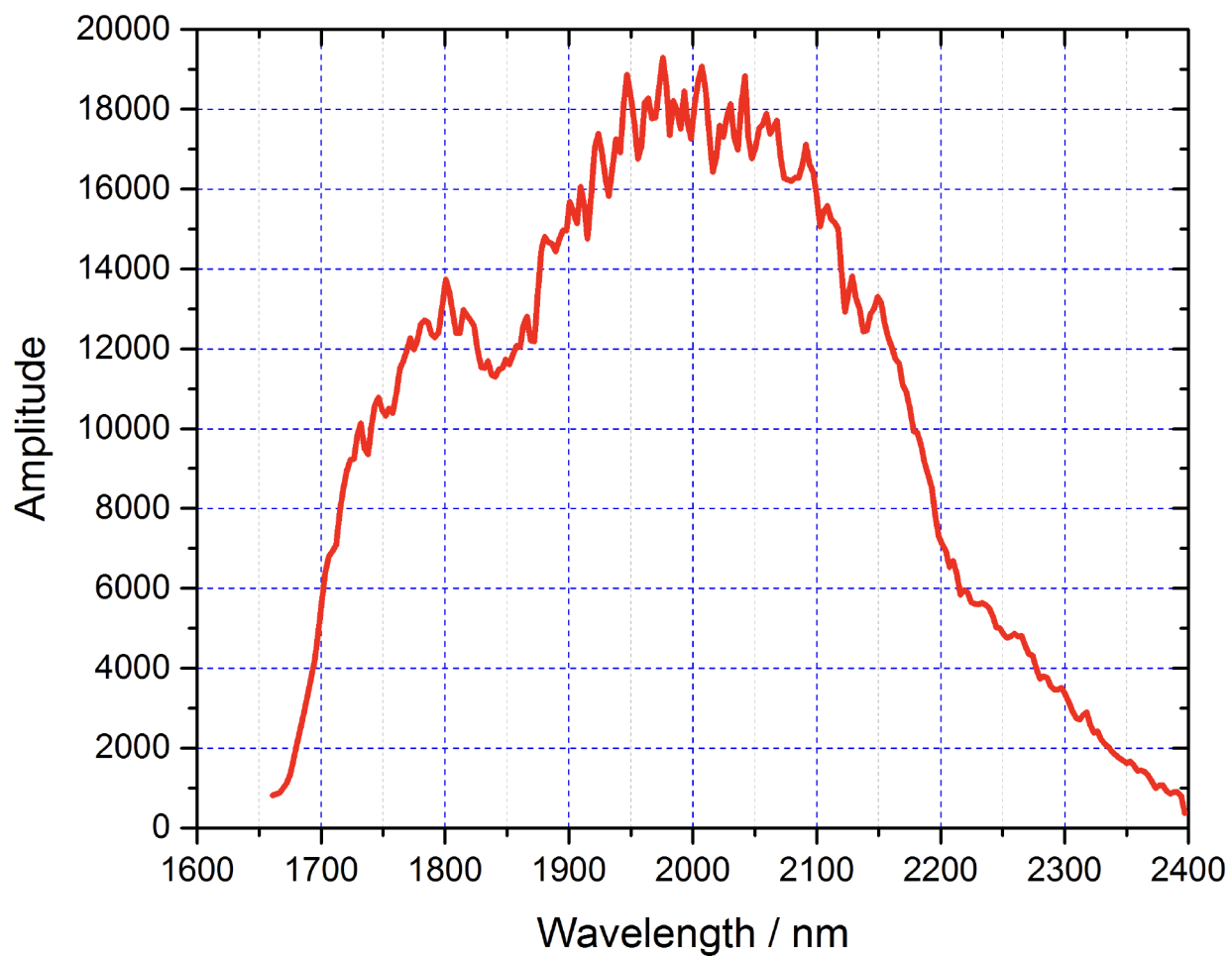
DATA EXAMPLE

# Experiment Details

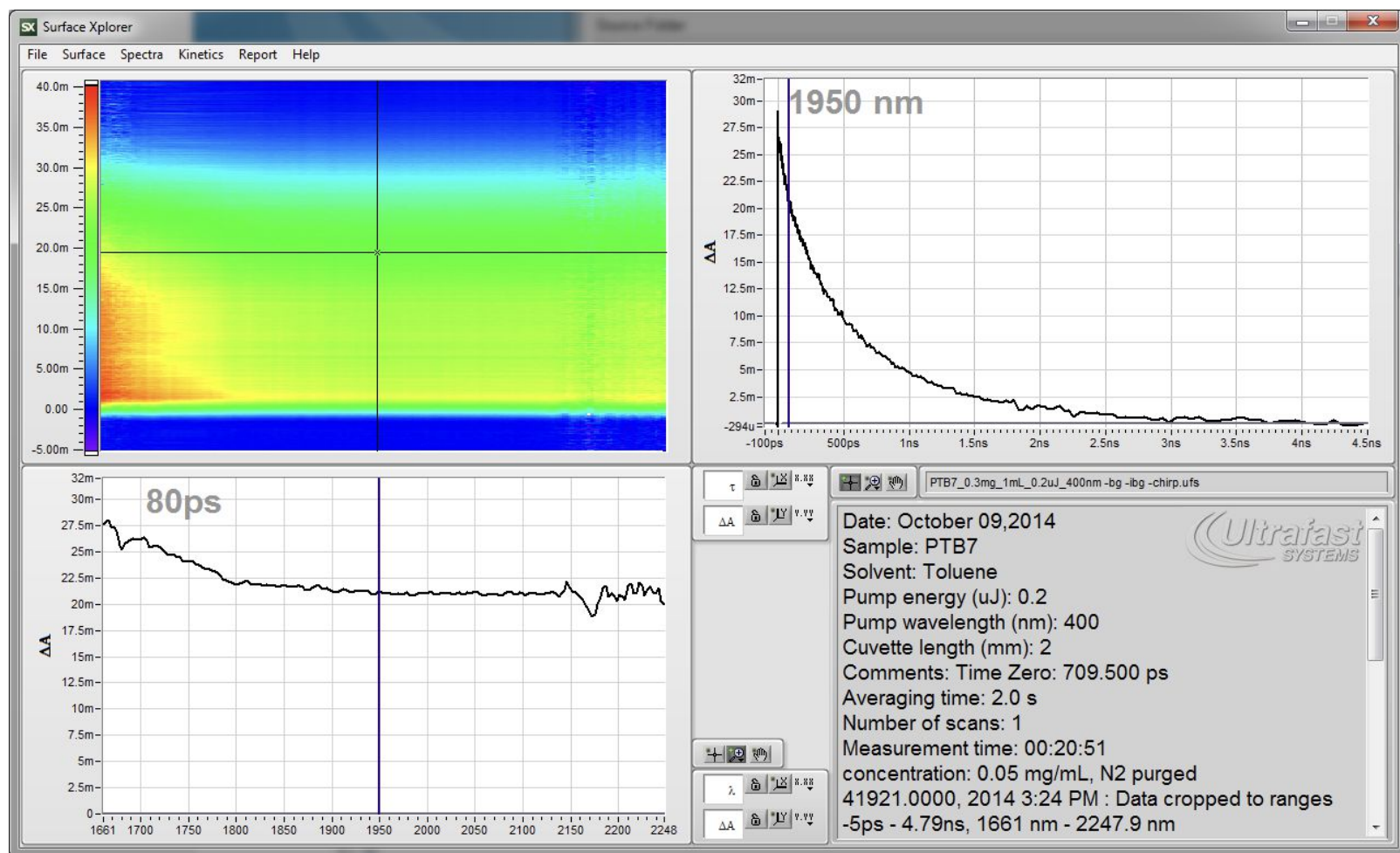
- Sample: PTB7 (Average  $M_w$  80,000-200,000)
- Solvent: Toluene
- Concentration:  $\sim 0.05$  g/L. Purged with  $N_2$  to remove  $O_2$
- Laser / OPA: Coherent Libra @ 1 kHz / Harmonics Generator
- Pump energy:  $0.2 \mu\text{J}$
- Pump wavelength: 400 nm
- Measurement time: 20 min



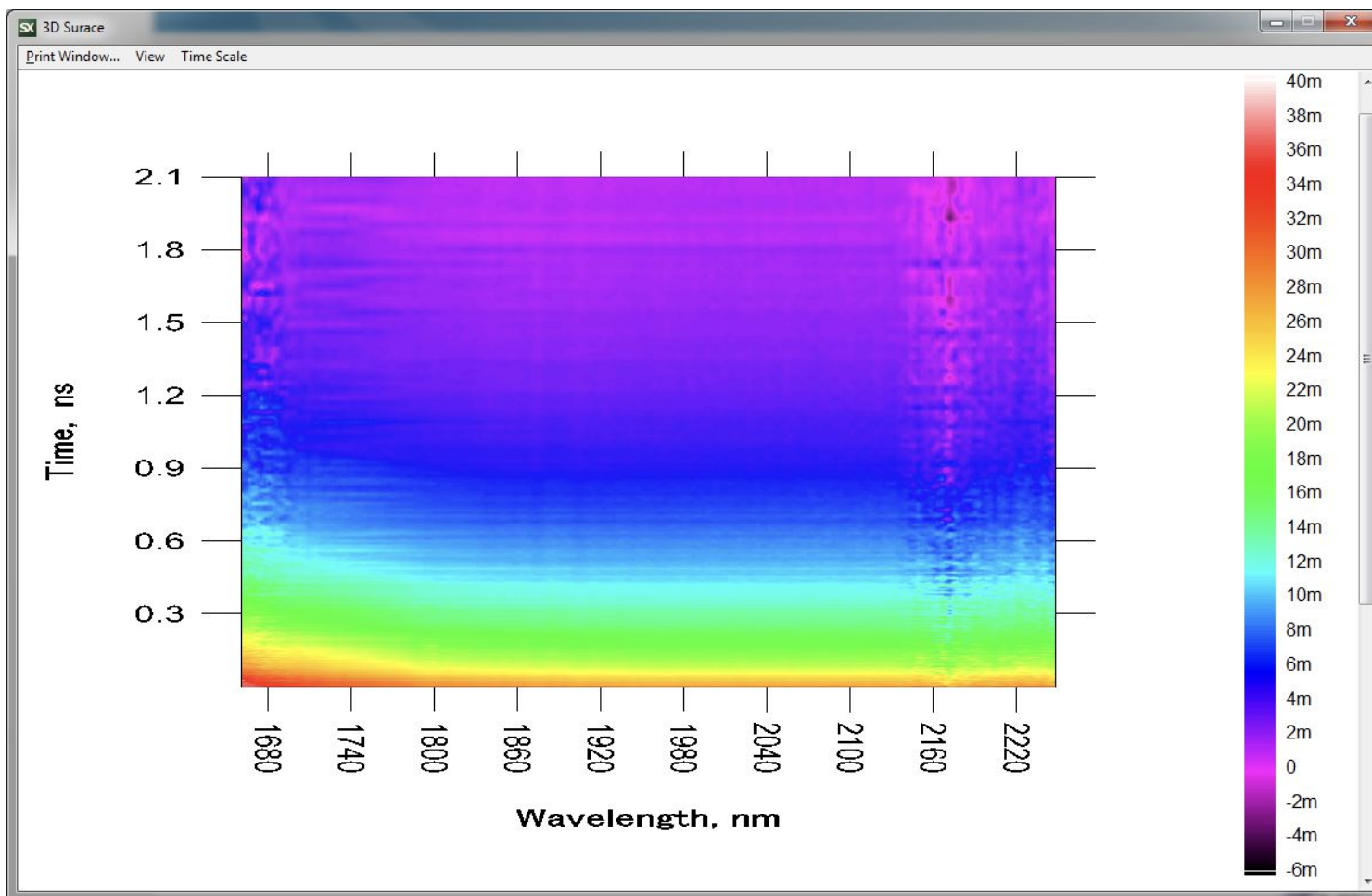
# SWIR Probe Spectrum



# PTB7 Dynamic Surface with Kinetic and Spectral Slices in Surface Xplorer Software

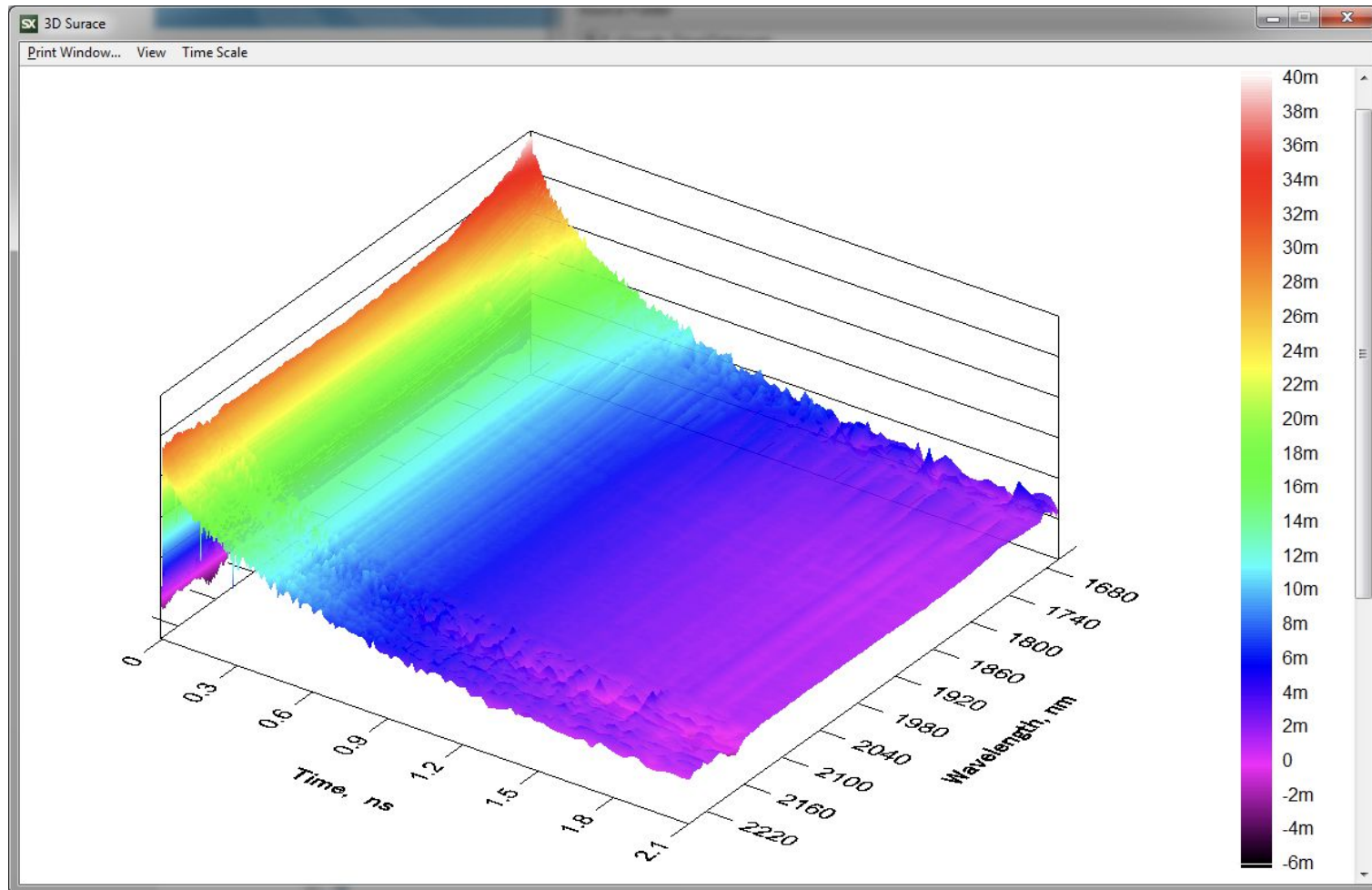


# Dynamic Surface of PTB7 (Bird's Eye View)



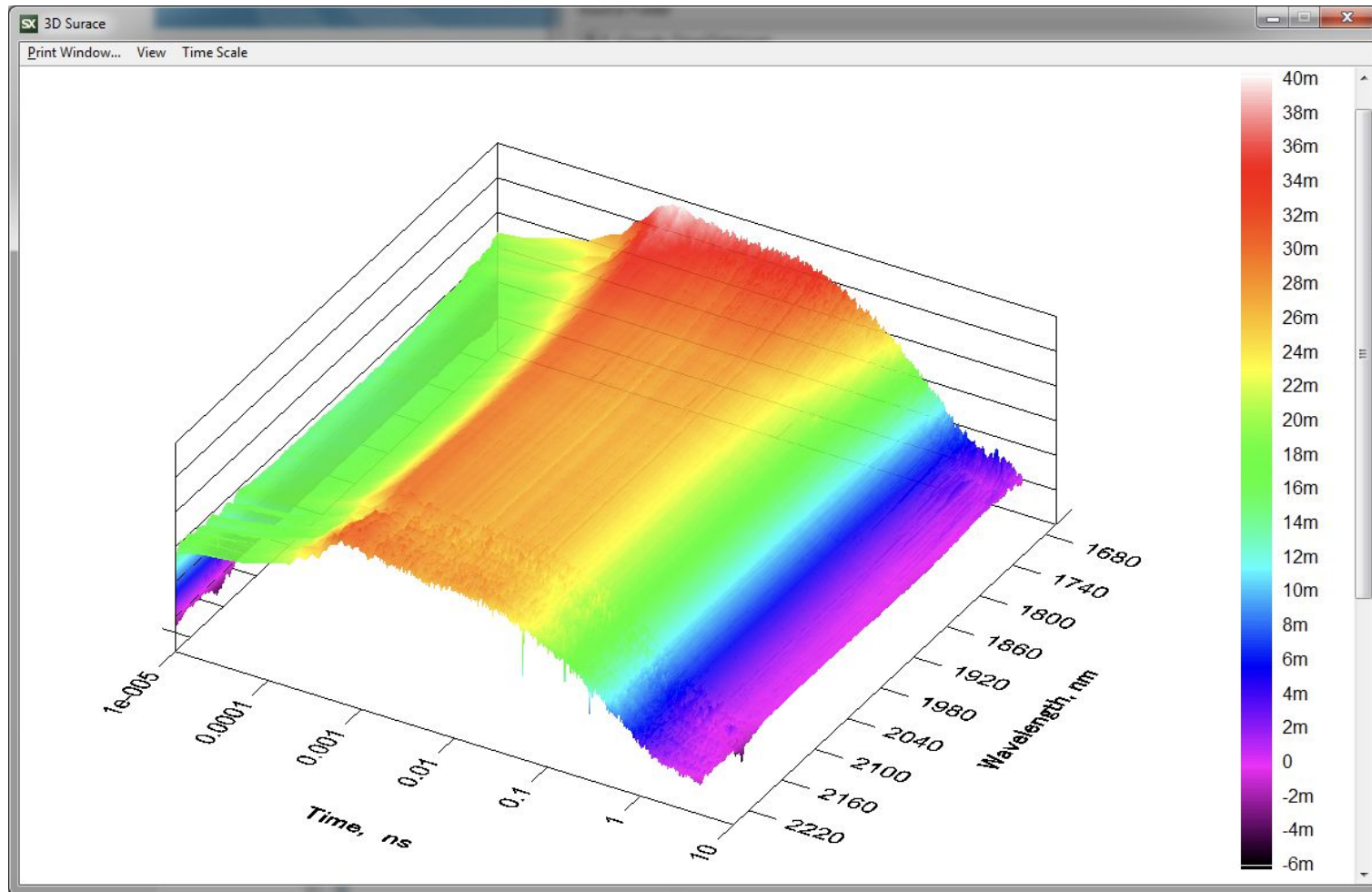
# Dynamic Surface of PTB7

(3D View)

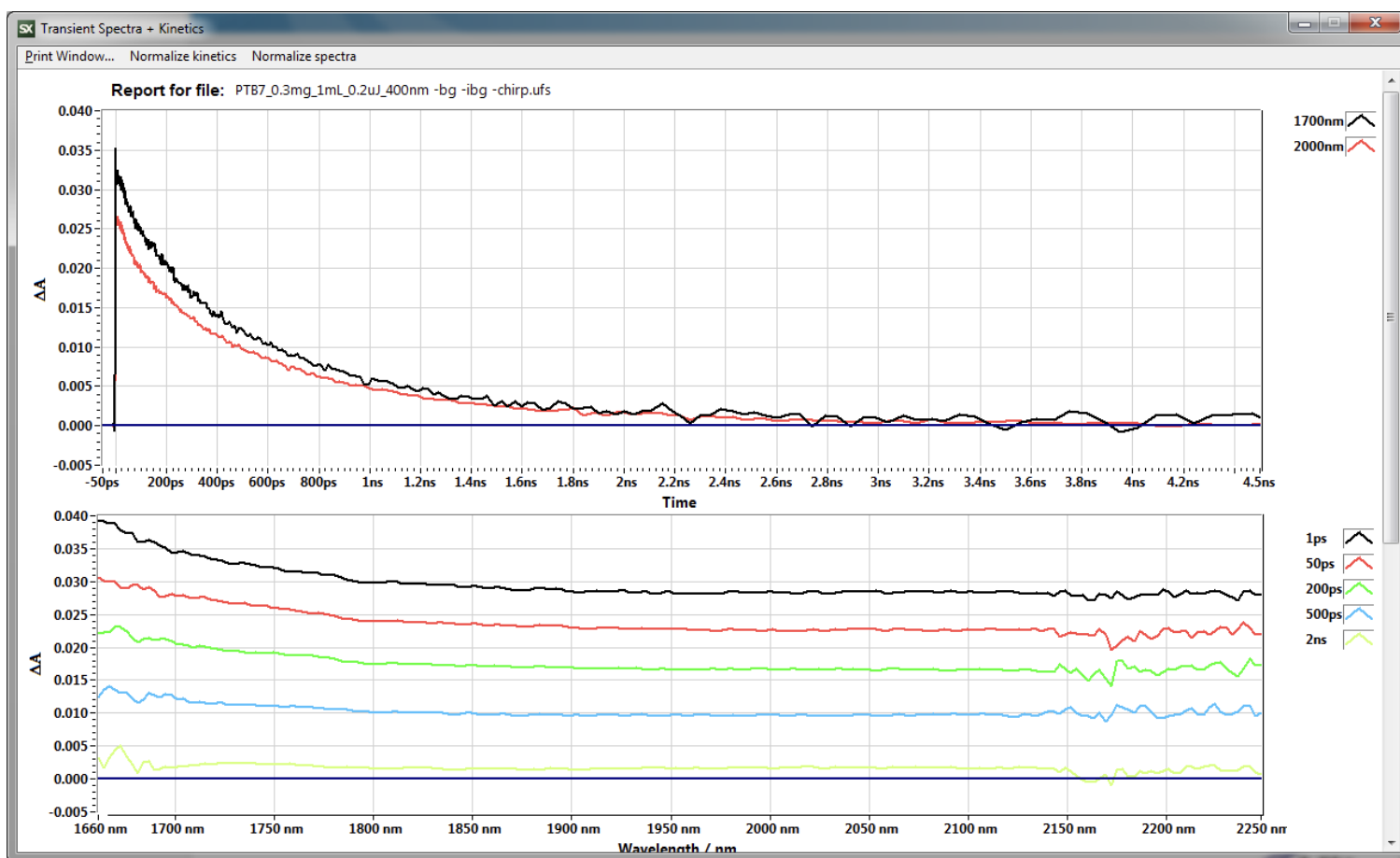


# Dynamic Surface of PTB7

(3D View, Logarithmic Timescale )



# Transient Kinetics & Spectra of PTB7 in Toluene





# Kinetic Fit of PTB7 in Toluene

