

Quiz 10

Name:

Date: 06.05.2025

Question 1

What does TCSPC measure?

- The natural lifetime
- The quantum yield
- The luminescence lifetime

Question 2

What is an advantage of a gated detection? (multiple possible answers)

- Reduce the experimental noise
- Increase the detected signal intensity
- Separate two processes that have different timescales

Question 3

In a transient absorption experiment, what happens when the probe reaches the sample prior to the pump?

The probe “sees” a sample that has not yet been excited by the pump, therefore there is no transient absorption signal. This would be equivalent to collecting the “normal” absorption spectrum of a sample in its ground state.