

**Chemistry 620**  
**Analytical Spectroscopy**  
**Summary Questions – Paper #1**

Klimov, V.I. and D.W. McBranch, Femtosecond high-sensitivity, chirp-free transient absorption spectroscopy using kilohertz lasers. *Optics Letters*, **23**(4), 277-279 (1998).

A good summary of this paper will be no more than 3 pages long, written using a word processor in essay format (a few paragraphs, 1.5 or double spaced) and address the following issues without repeating the questions explicitly:

1. What is the purpose of the work described by Klimov *et al*?
2. Summarize the approach the authors take to achieve their objectives.
3. Describe the light-matter interactions that form the basis for the work.
4. Describe the instrumentation the authors used to make the measurement(s).  
Since there are not figures in paper, see [quantumdot.lanl.gov/](http://quantumdot.lanl.gov/). Click a research icon and the button for Transient Absorption.
5. Summarize the principal results described in the paper.  
Focus on analyzing the data (figures)
6. What conclusions do the authors draw from these results?
7. Are the conclusions well supported by the data?
8. \*Discuss the availability and performance of other measurements to provide the information generated in this paper. Describe the relative advantages and disadvantages of the approach used in this paper to an alternative measurement.  
\*Answer this one as best you can but realize you don't have much background to use on this one yet.
9. List the references you used to answer questions 1 – 8.