

Chem 431 Chapter 30 Study Questions (Pages to read: 867-879, 882-884)

- What are the principal components of a capillary electrophoresis system?
- Why is the efficiency of CE separations so much greater than HPLC?
- How is it possible to use much higher separation voltages in CE than in traditional electrophoresis?
- What is the difference between electrophoresis and electroosmosis?
- What is Joule heating and what limitations does it place on CE?
- What are the two main injection methods for CE and how does each work?
- What are the principles of operation for each of the following CE detectors:
 - Absorbance
 - Indirect
 - Fluorescence
 - Electrochemical
- What is capillary zone electrophoresis?
- What is capillary gel electrophoresis?
- How has CE been used in DNA sequencing?
- What is MEKC and what is it used for?
- What is packed column electrochromatography and what is it used for?
- How is CE used for “lab-on-a-chip” technology?

Chapter-end problems: 5,6