ChE 344
Week 14
Problem Set 22
Due Tuesday, April 9, 2013 (Lecture 23)

Individual Assignment

1. PLQ 23 - What are the steps in developing a rate law for a chemical vapor deposition (CVD)? What is the primary difference between these CVD steps and those in the catalytic rate law?

2. P10-3 ICG: Just go through the review section. Your performance number will be due next week.

3. P13-2$_B$ (f) Load the LEP. Carry out parts (1) through (3) only. In part (3) start by choosing low, middle, and high values of UA. Use an if () then () statement if you run into trouble

4. P13-4$_B$

5. P10-4$_B$ (omit (d))

6. P10-7 (Parts (a), (b) and (c) only)

Study Problem

1. P13-3$_B$ Hint: neglect ΔH_{vap} and work through the adiabatic energy balance and CRE algorithm to show dT/dt = k(-ΔH_{Rx})/(C$_P$) where k(T) = k(970)exp[44500(1/970 - 1/T)], k(970) = 0.0051 min^{-1}

2. P13-5$_B$