

**CHM 117**  
**Problem Set 2**

This problem set is due on Thursday, February 2, 2006.

- 1) Do the following problems in Bard and Faulkner: 3.1, 3.3, 3.6, and 4.3.
2. Given a typical diffusion coefficient for a molecule in solution of  $10^{-5} \text{ cm}^2/\text{s}$  and a potentiostat with a current sensitivity of  $0.1 \mu\text{A}/\text{cm}^2$ , what is the smallest concentration of a species that can be observed under diffusion limited conditions at a planar electrode for a cell having an RC time constant of 1ms?