

## ChE 260 W 2001 Term Paper

### *Assignment:*

Prepare a critical review of a collection of related papers (minimum of 10) on a topic selected either from the list handed out in class or on a topic of your choosing (this must be approved by CWF). The review will be graded both for technical content and quality of writing (style, organization, format, mechanics).

### *Elements of a Critical Review:*

#### **Description of the motivation for the collected work:**

- **What is the current state of the science or technology?**

#### **Identification of the critical questions posed in the collection:**

- **Is the effort derivative or innovative?**
- **How will the effort extend knowledge?**

#### **Evaluation of the experimental approaches generally used:**

- **Are they appropriately selected?**
- **What are the sample constraints?**

#### **Consideration of the various analyses and interpretations:**

- **Are the assumptions clearly stated and appropriate?**
- **Are there errors in the mathematical treatments?**
- **Are there better, simpler analytical or numerical approaches?**
- **Are the arguments logically developed?**
- **What are the alternative interpretations of the data?**
- **Do authors agree, or are particular issues still under debate?**

#### **Assessment of future directions:**

- **Have all of the important questions been answered?**
- **What are the major obstacles to be overcome?**
- **What are the trends or directions of the research?**