3.044 Final Exam Overview

Comprehensive Coverage

Monday May 16, 2005

The final exam, which will take place next Monday in room 4-149, will cover all of the material taught in 3.044, with an emphasis on the last section of the course (*i.e.* what was not on tests 1 and 2). You will be expected to know (*i.e.* memorize):

1. Knudsen number: $\mathrm{Kn} = \lambda/L$, λ is mean free path.
2. Functional dependence of focusing cosine power n and recondensing fraction: $n = f_1(\mathrm{Kn})$, recondensed$= f_2(\mathrm{Kn})$.
3. Vapor pressure of a dilute solute: $p_{vi} = \gamma_i X_i \bar{p}_{vi}$.
4. Evaporation rato definition:
$$ER_B = \frac{\mathrm{wt}\%_{B,\mathrm{vapor}}/\mathrm{wt}\%_{A,\mathrm{vapor}}}{\mathrm{wt}\%_{B,\mathrm{liquid}}/\mathrm{wt}\%_{A,\mathrm{liquid}}}$$

That's it, not much! Other equations and methodologies introduced in the last two sections are very complicated, such as Clausius-Clapeyron, Langmuir, sintering models, etc., or else very qualitative, such as stability in sheet forming, the structure zone model, process maps, etc.