List of projects for CN2106 (2001 session)

1.   Compile and rank a list of Internet resources dedicated to the learning of chemical reaction engineering. Such resources may include:

   •   Web-book or on-line lectures
   •   Applications information (operational issues, trouble shooting & maintenance guides, equipment cost, consulting resources etc)
   •   Software for the engineers (not in the same category as those in Q2 below)
   •   Database of chemical reactions and kinetics

2.   A number of freeware and shareware on chemical kinetics/chemical reaction engineering are available on the Internet. Provide a critical review of at least 3 of such programs. The following list is by no means exhaustive. You will get extra credits for reviewing programs which are not on the list (HSF's CDROM is excluded)

   •   Chemical Kinetics Simulator (IBM)
   •   The Chemical Reaction Network (CNRT)
   •   Kintecus
   •   GEPASI
   •   ChemSimul
   •   Reactor Lab

   Your review should include the program category (educational or general purpose), the usefulness of the program, its capability, performance, and result reliability. You have to provide your overall assessment as well.

3.   Develop MATLAB codes that will reproduce the various design charts in Levenspiel's text (e.g. Fig 6.5 and 6.6; 8.13 and 8.14). Some of the skeleton codes could be found on HSF's CDROM. You will be given additional credits if you can generate even more useful design charts than those listed.

4.   Design a new experiment or any project that you propose and is accepted by me.