

Unit 25. Pre-Class Quiz Questions

1. Which of the following are advantages of PFRs? (select all that apply)
 - a. suitable for use with heterogeneous catalysts
 - b. limited heat transfer area
 - c. continuous processing
 - d. no dilution of the reactants upon entry into the reactor
 - e. high labor requirement
2. True or false? The PFR is the only one of the three ideal reactor types wherein the composition and temperature vary spatially.
3. True or false? A PFR is more flexible than a CSTR with respect to heat transfer area per fluid volume.
4. True or false? A differentially thick cross section of the fluid in a PFR can be modeled qualitatively as if it were a batch reactor.
5. True or false? A PFR operating adiabatically with an exothermic reaction will have a greater average temperature than an adiabatic CSTR operating at the same conversion.