

Problem 32, Chemistry 301X, 2006

- a. Make schematic drawings of all eight chlorofluorobutanes (one F, one Cl, only butanes, not isobutanes).
- b. Mark all stereogenic carbons with an asterisk.
- c. If any of the following exist, make careful three-dimensional drawings of one example:
  - i. a pair of enantiomers
  - ii. a pair of diastereomers
  - iii. a meso compound
  - iv. an (*S*)-compound