

How many stereoisomers?



Follow-up:

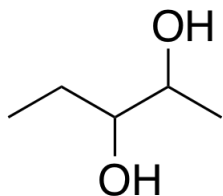
- Draw all stereoisomers.
- Assign R/S.
- Label relationships between all stereoisomers.

- A. 2
- B. 3
- C. 4
- D. 5
- E. Achiral

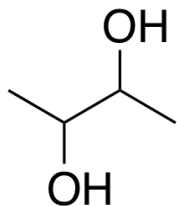
Completed in class.

Draw All Stereoisomers

Make models too!

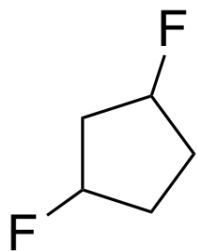


Completed in class.



Draw All Stereoisomers

(Make models too!)



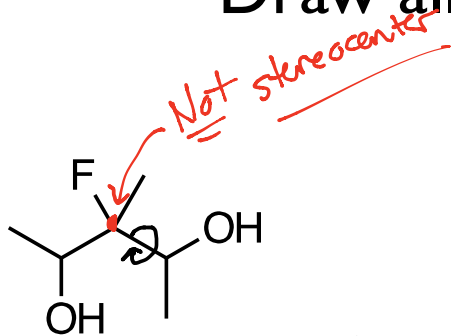
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in
class

How do you find meso compounds?

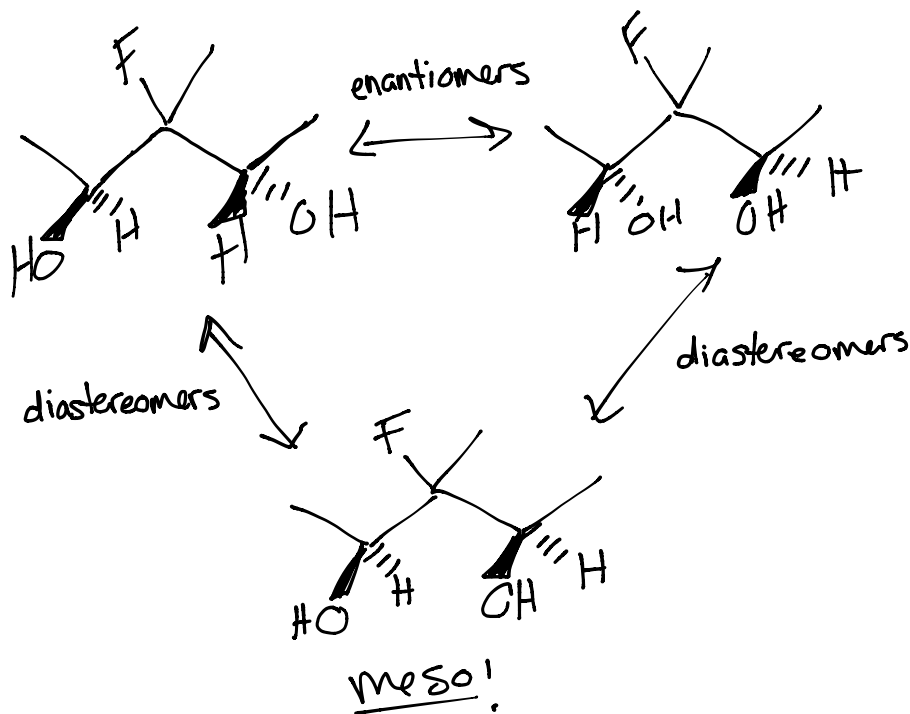
Based on the previous examples, how can you recognize meso compounds? Describe your method as if you are teaching it to another student! Use examples.

Completed in class.

Draw all stereoisomers and label all relationships.



(rotating around this bond will make the problem easier)



Optical Rotation & % ee Question

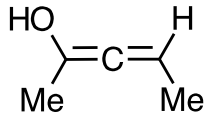
- Pure (S)-2-butanol has a specific rotation of +13.52 degrees. A sample of 2-butanol prepared in the lab and purified by distillation has a calculated specific rotation of +6.76 degrees. What can you conclude about the composition?

- A. 50% (S), 50% impurity
- B. 50% (S), 50% (R)
- C. 50% (S), 50% racemic
- D. some other mixture
- E. Cannot tell from this info

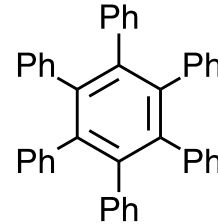
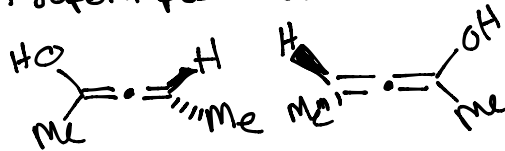
completed in class

Challenge!

- Are the following molecules chiral?



yes! π systems are perpendicular to each other. Mirror images are not superimposable.



yes! Ph groups are planar and large, so each one must rotate slightly to avoid steric strain. This creates a helical shape.