LeAP: Alkanes

- Due Sep 5, 2024 at 11:59pm
- Points 5
- Questions 8
- Available until Sep 9, 2024 at 11:59pm
- Time Limit None
- Allowed Attempts 2

Instructions

Lecture Application Practices (LeAPs) serve as initial opportunities for students to apply the information they've gathered from the pre-lecture videos and in-person lectures/lecture videos.

Students are strongly encouraged to complete LeAPs on the same day that the corresponding topic is completed in class. However, to provide consistent due dates, sets of LeAPs will be due on Thursdays at 11:59 PM - Chicago time. See the Weekly Schedules or Course Calendar for specific due dates for each activity.

Each LeAP is worth 5 points. Credit will be awarded based on accuracy. There is no time limit. Students will receive two attempts for each assignment and the highest score will be recorded in the gradebook. LeAPs may consist of multiple-choice, calculation, ranking, choose all that apply, and fill in the blank type questions.

This quiz was locked Sep 9, 2024 at 11:59pm.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	356 minutes	5 out of 5

Correct answers are hidden.

Score for this attempt: 5 out of 5
Submitted Sep 4, 2024 at 7:35pm
This attempt took 356 minutes.

Question 1
0.5 / 0.5 pts

Rank the following noncovalent intermolecular interactions from strongest (1) to weakest (3).

1

Hydrogen bonding

2

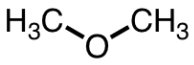
Dipole-dipole interactions

3

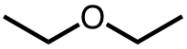
Van derWaals interactions

Question 2
0.5 / 0.5 pts

Match each molecule with its boiling point.



Dimethyl ether



Diethyl ether

n-butanol

Dimethyl ether

–24 °C

Diethyl ether

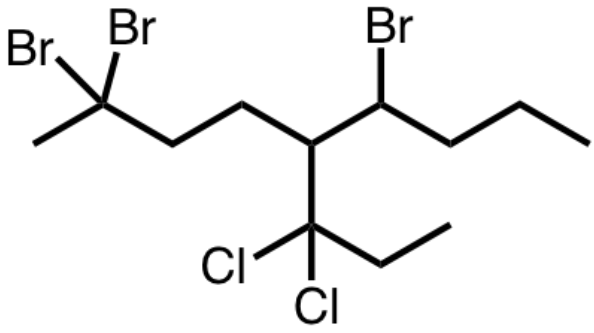
34.6 °C

n-butanol

117.7 °C

Question 3
0.5 / 0.5 pts

Use the alkane shown below to answer questions 3-4.



The alkane chain contains a branched substituent. Type the name of this branched substituent in the box.

1,1-dichloropropyl

Question 4

1 / 1 pts

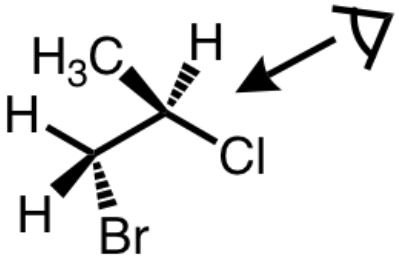
Now that you have identified and named the branched substituent, write the full name of the molecule in the box. (Hint: Don't forget to put parentheses around the name of the branched substituent.)

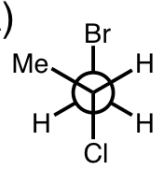
2,2,6-tribromo-5-(1,1-dichloropropyl)nonane

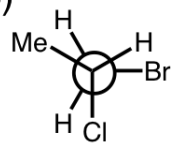
Question 5

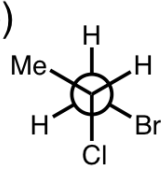
0.5 / 0.5 pts

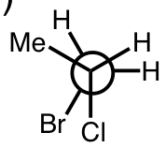
Which Newman projection represents the same conformation as the wedge-dash structure shown below, as seen from the perspective of the eyeball?

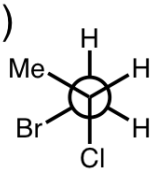


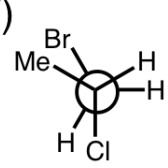
A)


B)


C)


D)


E)


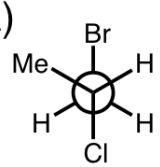
F)


- A
- B
- C
- D
- E
- F

Question 6

0.5 / 0.5 pts

Use the Newman Projections shown below to answer questions 6-8.

A)


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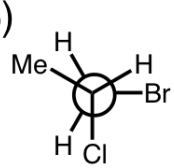
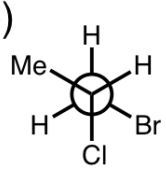


C)


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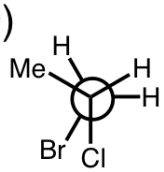

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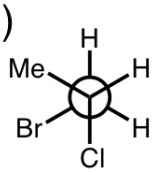
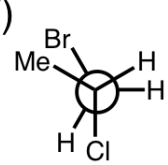


F)


Which of the Newman projections are in an eclipsed conformation? **Choose all that apply.**

- [ ] A
- [x] B
- [ ] C
- [x] D
- [ ] E
- [x] F

Question 7

0.5 / 0.5 pts

Rank the relative sizes of a Br, methyl, Cl, and H group. (1 is the smallest, 4 is the largest)

1

H

2

Cl

3

Br

4

Methyl

Question 8

1 / 1 pts

Which Newman projection represents the **highest** energy conformation?

- ( ) A
- ( ) B
- ( ) C
- ( ) D
- ( ) E
- (•) F

Quiz Score: 5 out of 5