The Tamao-Fleming reaction was mentioned in class today. To encourage you to think some more about the chemistry, consider the following transformation:

\[
\text{KF, H}_2\text{O}_2 \quad \xrightarrow{K_2\text{CO}_3} \quad \text{HOH}
\]

Formulate a mechanism for the transformation illustrated above.

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How? [HINT: think temporary silicon connection and radical addition to a C=C]

Account for the stereochemical outcome.

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Use the ring closing metathesis reaction to formulate a synthesis of

Formulate a mechanism for the RCM reaction of the substrate you selected.

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Read the C & EN article featuring olefin metathesis that you can find on the class reference list; the web address is given there.

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Provide a mechanism to account for the following transformation. What types of intermediates are involved?

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