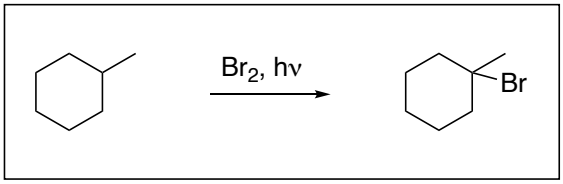
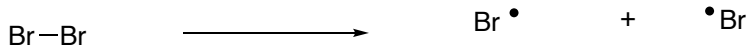
Radical Halogenation

For each step in the mechanism, add curly arrows to show the movement of electrons.

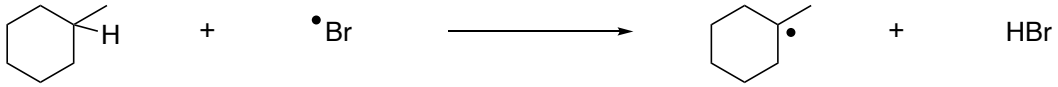
Overall Reaction:

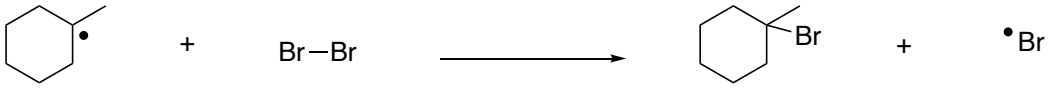


Initiation:

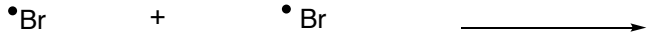


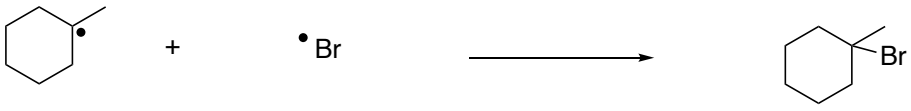
Propagation:





Termination:





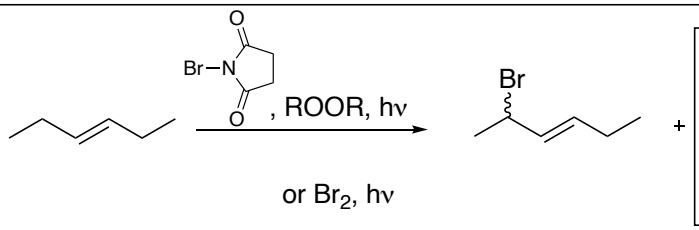
In the first propagation step, why was hydrogen abstracted from the tertiary carbon?

If Cl_2 was used, would the reaction be more or less selective for the tertiary chloride product?

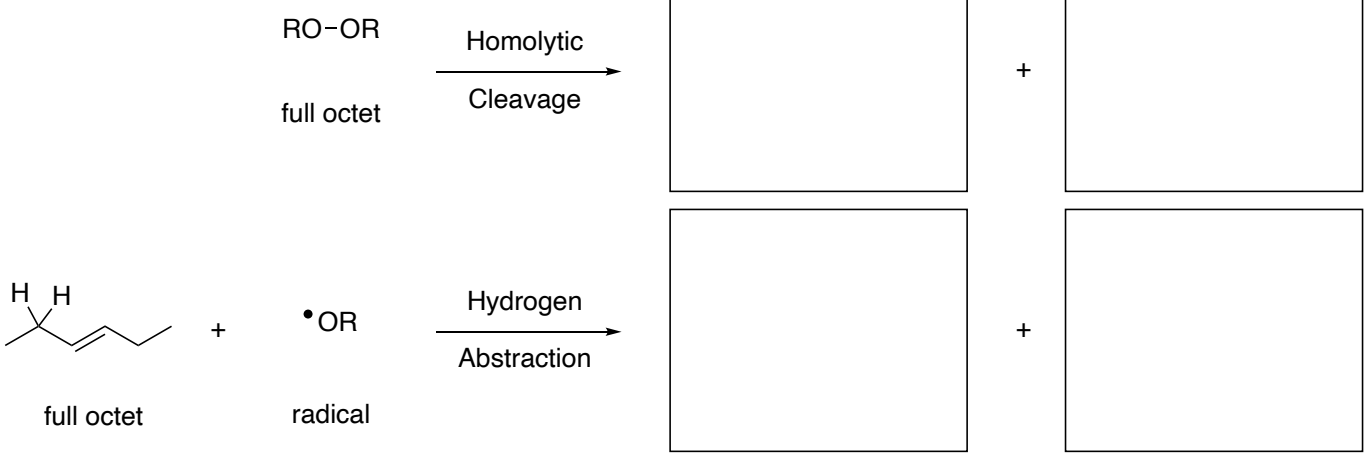
Allylic and Benzylic Bromination

For each step in the mechanism, add curly arrows to show the movement of electrons and draw the products.

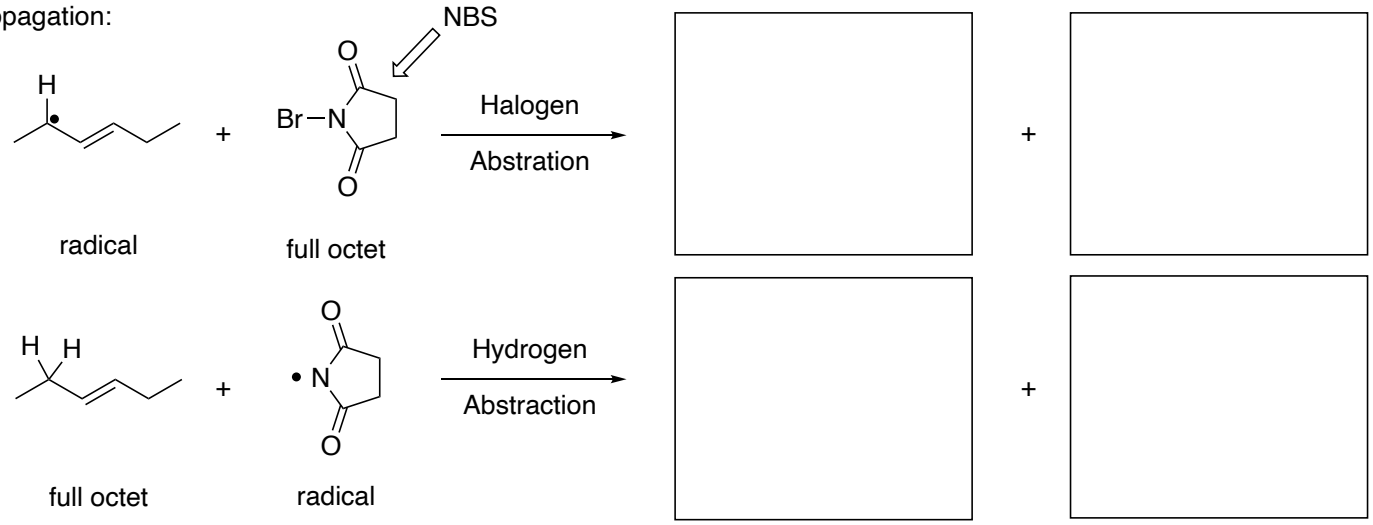
Overall Reaction:



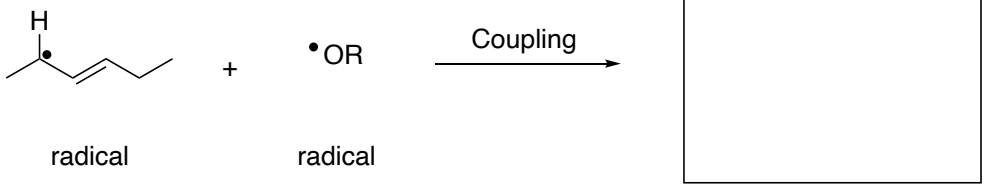
Initiation:



Propagation:



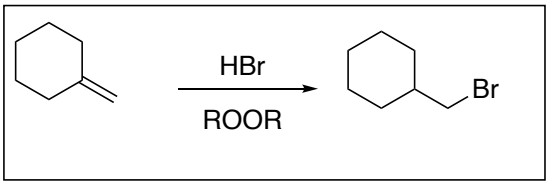
Termination:



Radical Addition of HBr to Alkenes

For each step in the mechanism, add curly arrows to show the movement of electrons, draw the products and starting structures for each step.

Overall Reaction:



Initiation:

RO−OR

full octet

Homolytic Cleavage

radical + radical

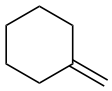
Br−H + [ ]

full octet

Hydrogen Abstraction

[ ] + [ ]

Propagation:



+ [ ]

full octet

Addition

[ ]

Br−H + [ ]

full octet

Hydrogen Abstraction

[ ] + [ ]

Provide a termination step below.