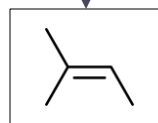


Start



Reagents

HCl

HBr

Way of generating radicals?

UV light, or peroxides and heat
will cause radicals to form.

NO

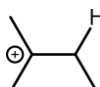
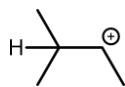
YES

Electrophilic Addition

Radical Addition

H adds first

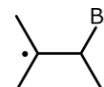
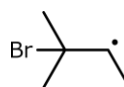
H ends up on less substituted end.



- | | |
|---|---|
| <ul style="list-style-type: none"> • Less substituted carbocation • Less stable • NOT FORMED | <ul style="list-style-type: none"> • More substituted carbocation • More stable • FORMED |
|---|---|

Halogen adds first

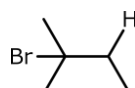
Halogen ends up on less substituted end.



- | | |
|---|---|
| <ul style="list-style-type: none"> • Less substituted radical • Less stable • NOT FORMED | <ul style="list-style-type: none"> • More substituted radical • More stable • FORMED |
|---|---|

Halogen attacks more substituted end

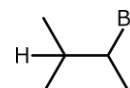
Halogen ends up on more substituted end.



Markovnikov product

H attacks more substituted end

H ends up on more substituted end.



Anti-Markovnikov product