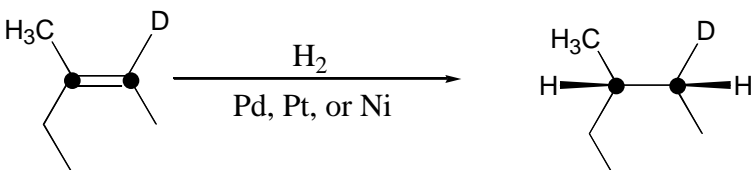
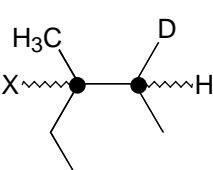
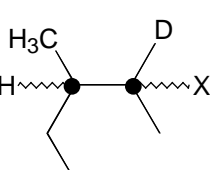
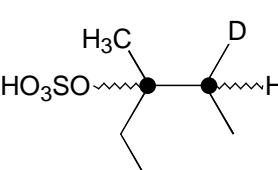
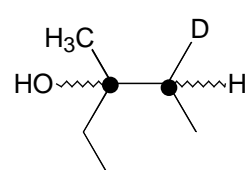
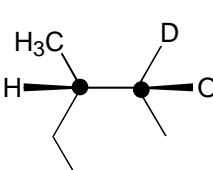
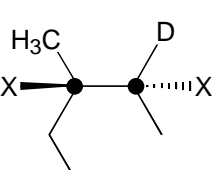
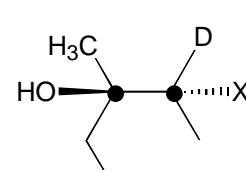
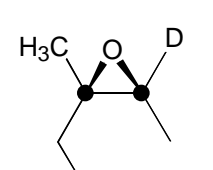


# Addition to Alkenes: Regiochemistry & Stereochemistry

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			<u>Regiochem.</u>	<u>Stereochem.</u>
Hydrogenation (6.1)			n.a.	<i>syn</i>
Hydrogen Halide Add. (6.4)		$\text{HX}$ (X = F, Cl, Br, I)	<b>Mark.</b>	mixed
Free-Radical Hydrogen Halide Add. (6.8)		$\text{HX}$ peroxide or hv	<b>Anti-Mark.</b>	mixed
Sulfuric Acid Add. (6.9)		100% H <sub>2</sub> SO <sub>4</sub> (no heat)	<b>Mark.</b>	mixed
Acid-Cat. Hydration (6.10)		50% H <sub>2</sub> SO <sub>4</sub> (H <sub>3</sub> O <sup>+</sup> )	<b>Mark.</b>	mixed
Hydroboration Oxidation (6.11)		1) B <sub>2</sub> H <sub>6</sub> 2) HOOH, NaOH	<b>Anti-Mark.</b>	<i>syn</i>
Alkene Halogenation (6.14)		X <sub>2</sub> (X = Cl, Br)	n.a.	<i>anti</i>
Halohydrin Formation (6.17)		X <sub>2</sub> , H <sub>2</sub> O (X = Cl, Br, I)	<b>Mark.</b>	<i>anti</i>
Epoxidation (6.18)		per-acetic acid (CH <sub>3</sub> CO <sub>3</sub> H)	n.a.	<i>syn</i>

NOTES: \* Only Free-Rad. HX and Hydrobor.Oxid. have **Anti-Mark.** regiochem.

\* All reactions involving acids give mixed stereochem.

\* Only reactions involving X<sub>2</sub> give *anti* stereochem.