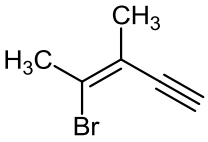
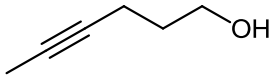
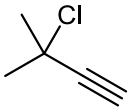
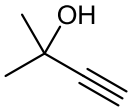
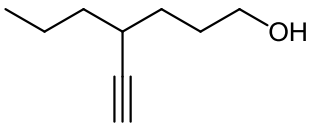
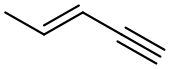
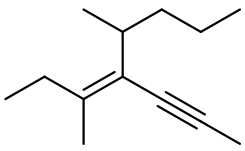
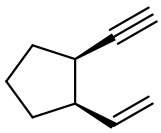
13 章の問題の解答例

21

(a)	(b)	(c)
		

22

(a)	(b)	(c)
		
3–クロロ–3–メチル–１–ブチン	2-メチル-3-ブチン-2-オール	4-エテニル-1-ヘプタノール または 4-(1-プロピル)-5-ヘキシン-1-オール
3-chloro-3-methylbut-1-yne	2-methylbut-3-yn-2-ol	4-ethynylheptan-1-ol or 4-(1-propyl)hex-5-yn-1-ol
(d)	(e)	(f)
		
trans-3-ペンテン-1-イン	(3*E*)-3,5-ジメチル-4-(1-プロピニル)-3-オクテン または (5*E*)-5-メチル-4-(1-メチルブチル)-4-ヘプテン-2-イン	(1*R*,2*R*)-1-エテニル-2-エチニルシクロペンタン
trans-pent-3-en-1-yne	(3*E*)-3,5-dimethyl-4-(prop-1-yn-1-yl)oct-3-ene or (5*E*)-5-methyl-4-(1-methylbutyl)hept-4-en-2-yne)	(1*R*,2*R*)-1-ethenyl-2-ethynylcyclopentane

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C-H 結合の強さは、エチン(sp 混成)、エテン(sp^2 混成)、エタン(sp^3 混成)の順である。混成軌道の s 性が大きいほど、結合電子を炭素に引きつけるため結合の極性が高くなり、C-H 結合の解離エネルギーも酸性度も増大する。

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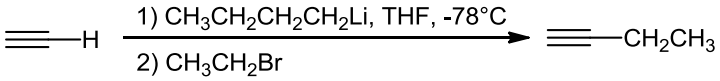
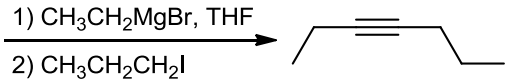
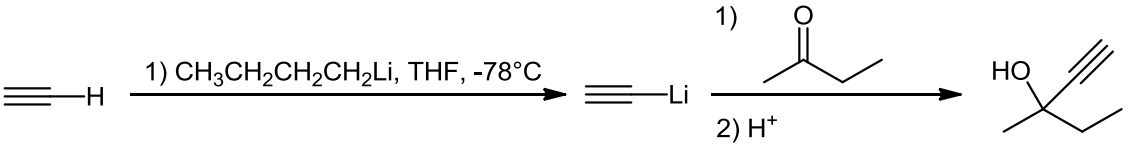
(a)

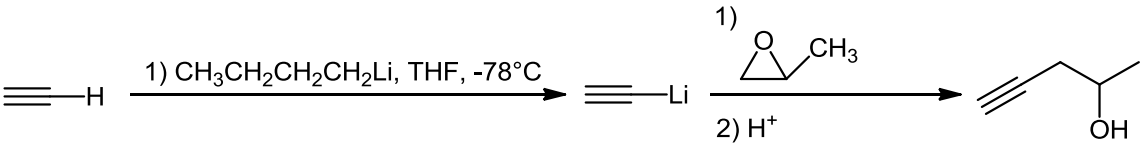




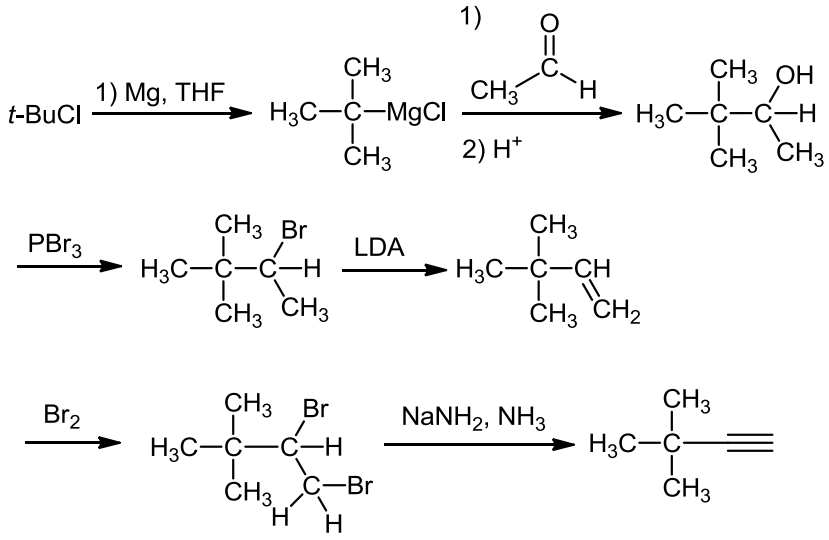
(b)



(c)



(d)



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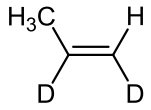
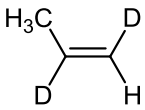
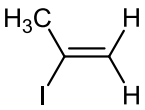
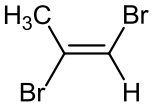
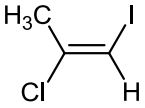
(a)	(b)	(c)
		
(d)	(e)	(f)
		
(g)	(h)	(i)