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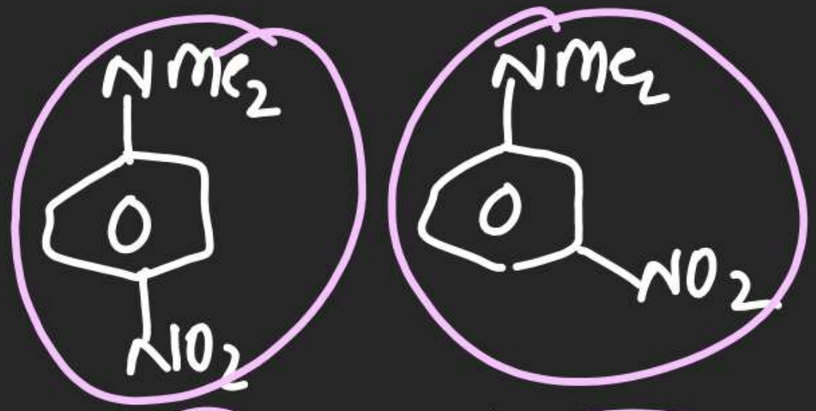
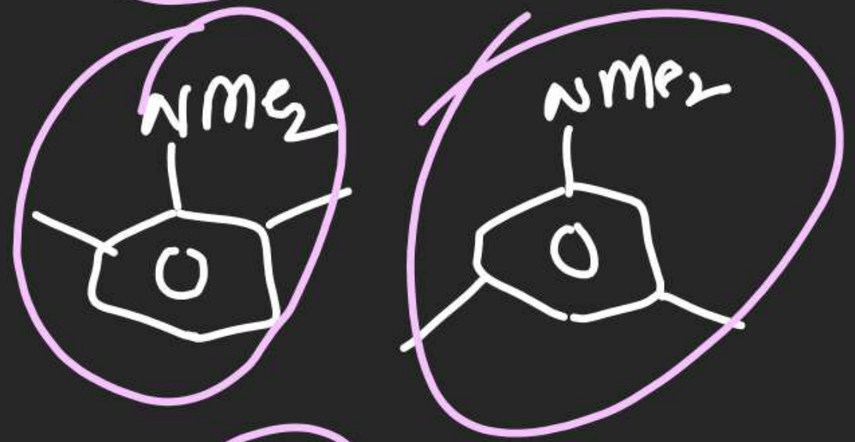
(13)

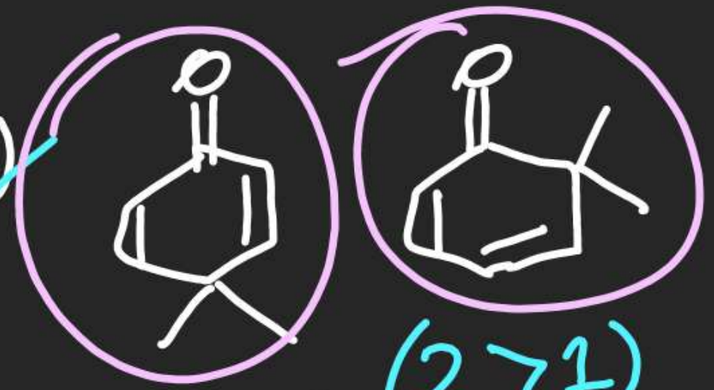


(14)

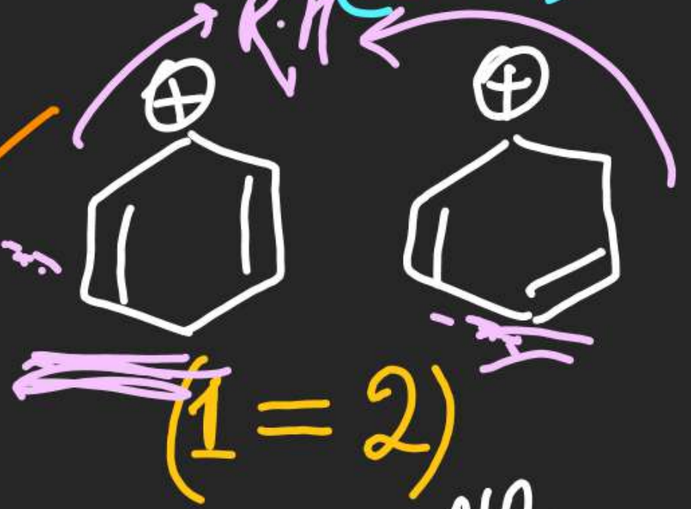


(15)

(16)



(17)



(1 = 2)

(18)

(2 > 1)

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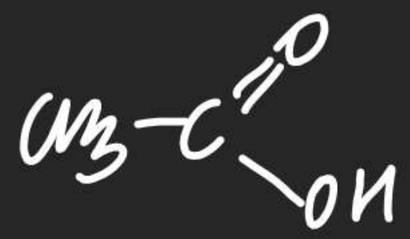
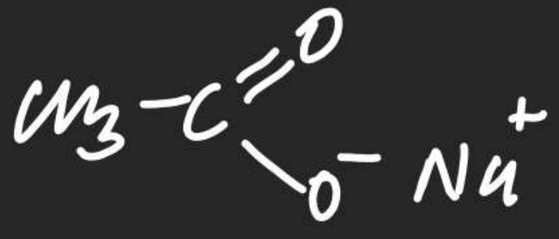
(19)   2 > 1 (identical RS)

(20)   (2 > 1) Aromatic

(21)   1 > 2 (Aromatic)

(22)   1 > 2 Extended

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(23) Heat of hydrogenation of 1-Hexene is −28.6 kcal/mole. On introducing one new π Bond, heat of hydrogenation obtained is −53.5 kcal/mole. New compound is

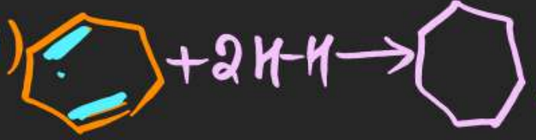
✗ (A) Hexa-1,2-diene 

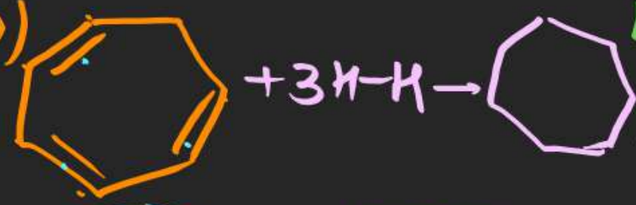
✗ (B) Hexa-1,5-diene 

✗ (C) Hexa-2,4-diene 

✓ (D) Hexa-1,3-diene 

Soln (24)

(a) 

(b) 

$\frac{3}{2}x - y$ = RE = $\Delta H_{exp} - \Delta H_{obs}$

(24) Heat of hydrogenation for cyclohepta-1,4-diene & cyclo

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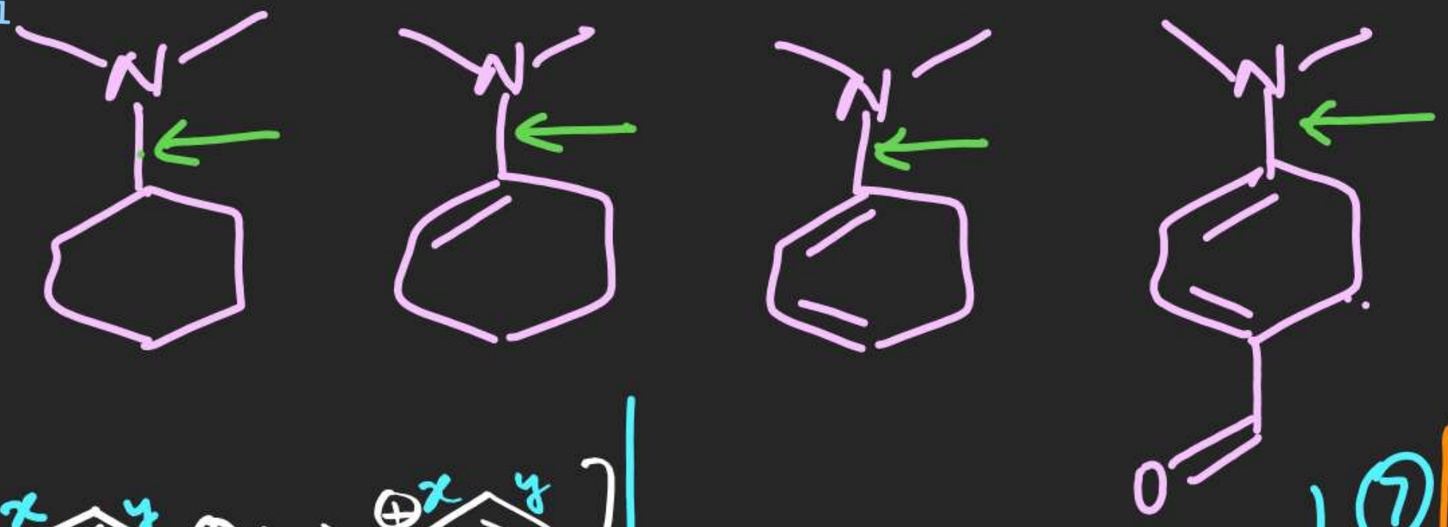
(1)



Bond length.

(1 > 2 > 3 > 4)

(2)

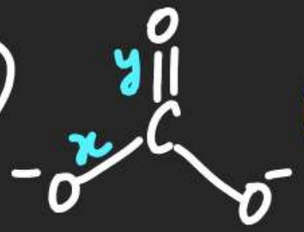
$(x = y)$

(3) 

$(x = y)$

(4) 

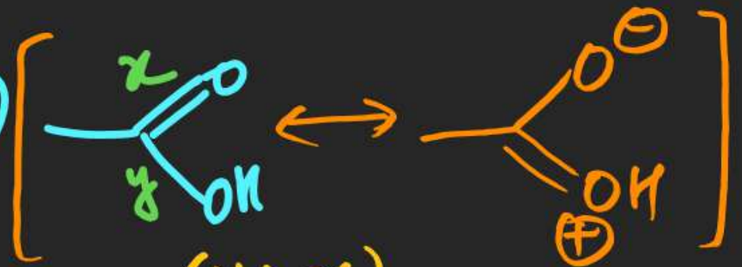
$(x = y)$

(5) 

$(x = y)$

(6) 

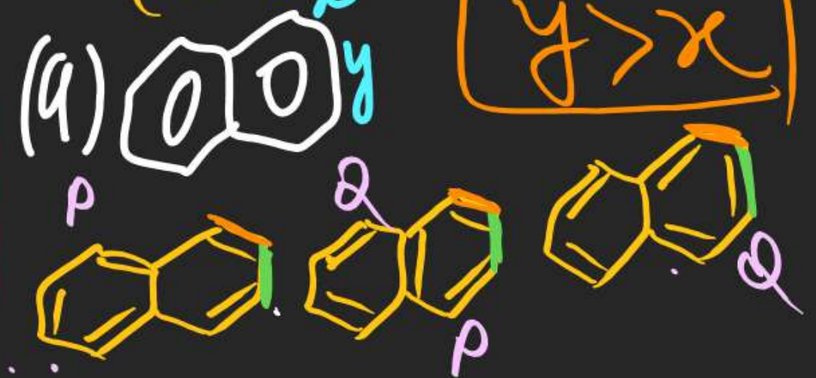
$(x = y)$

(7) 

$(y > x)$

(8) 

$(x = y)$

(9) 

$y > x$

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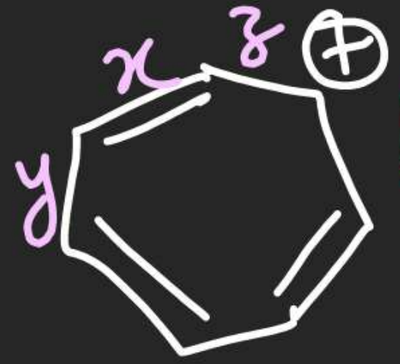
(10) 

(y > x)

4 time Double
1 time Single

(11) 

(x = y = z)

(12) 

(x = y = z)

(13) 

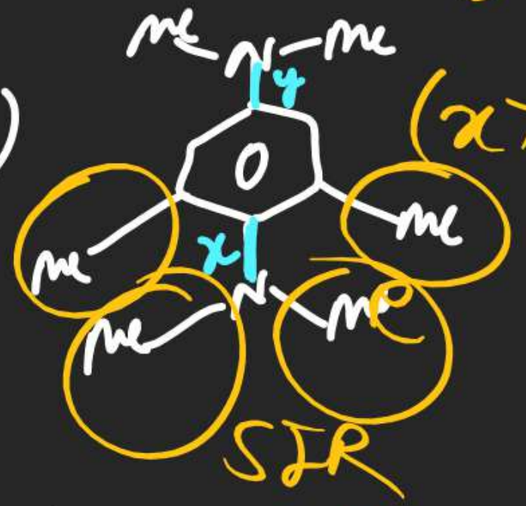
(y > x)

(14) $CH_2=CH-F$ (2P 2P) $CH_2=CH-Cl$ (2P 3P)

(15) 

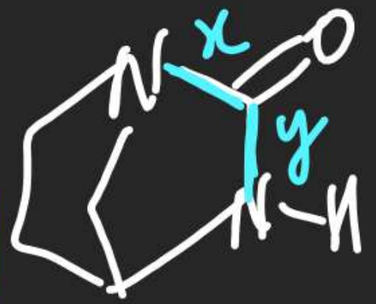
(I > II)

y > x

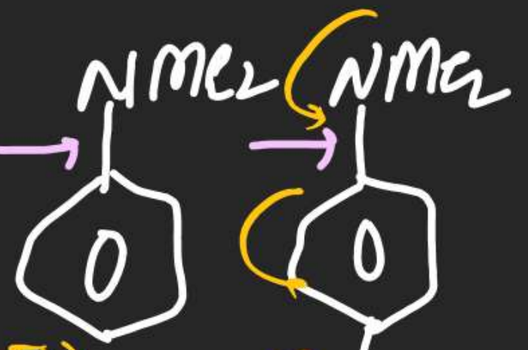
(16) 

(x > y)

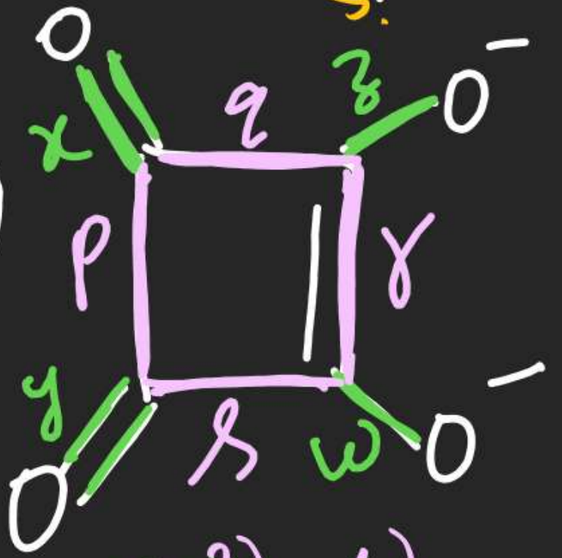
SIR

(17) 

x > y

(18) 

(I > II)

(19) 

(x = y = ω = z)

(p = q = γ = δ)

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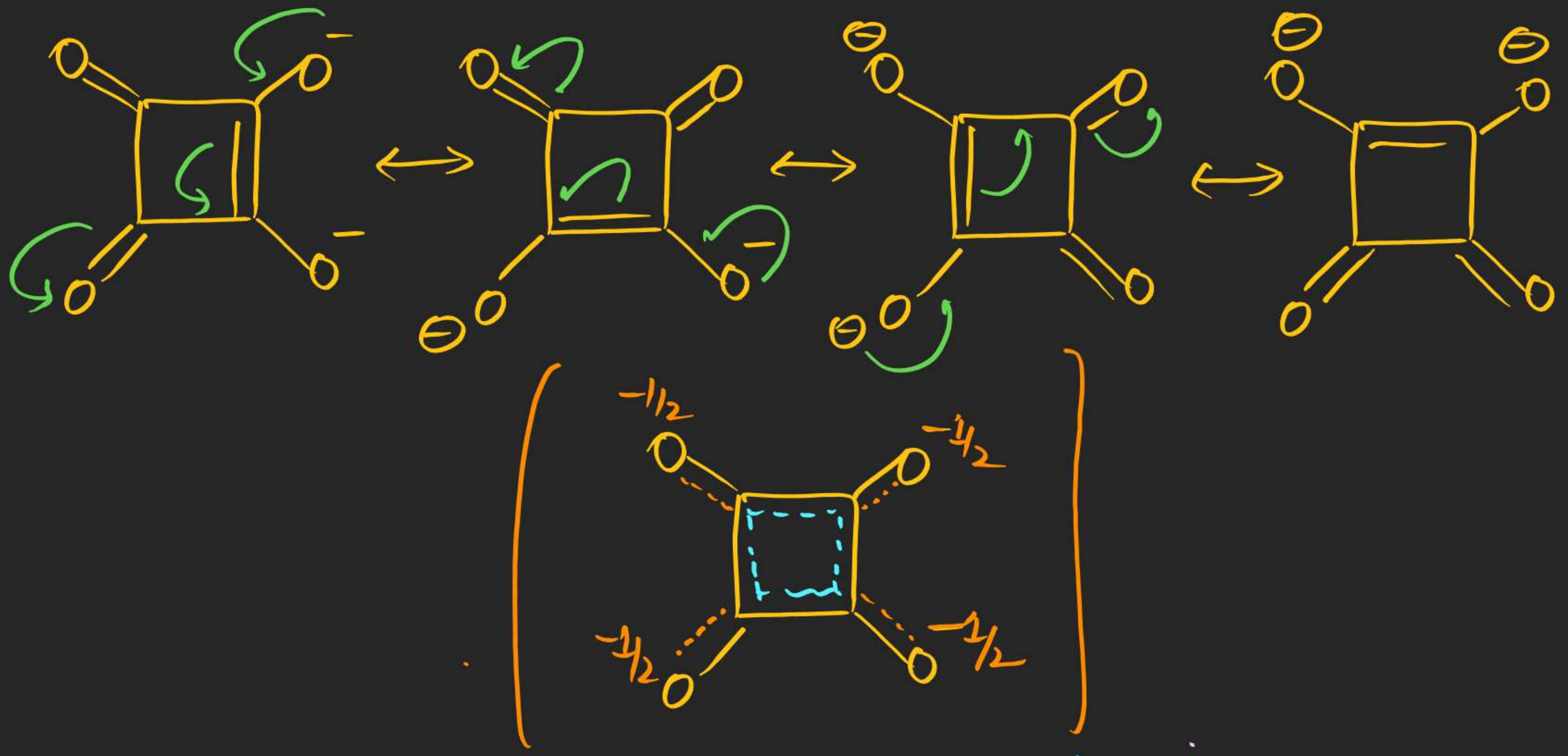
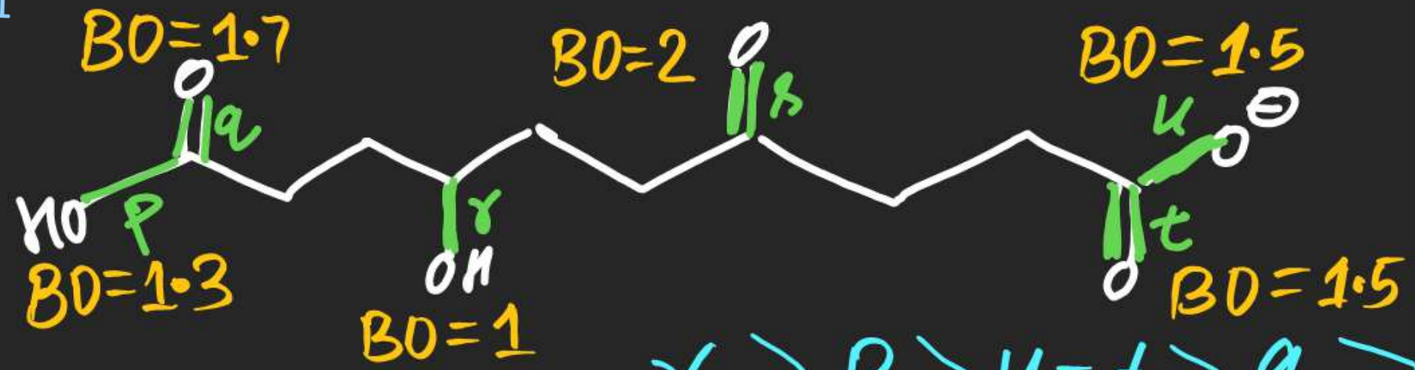
(19)



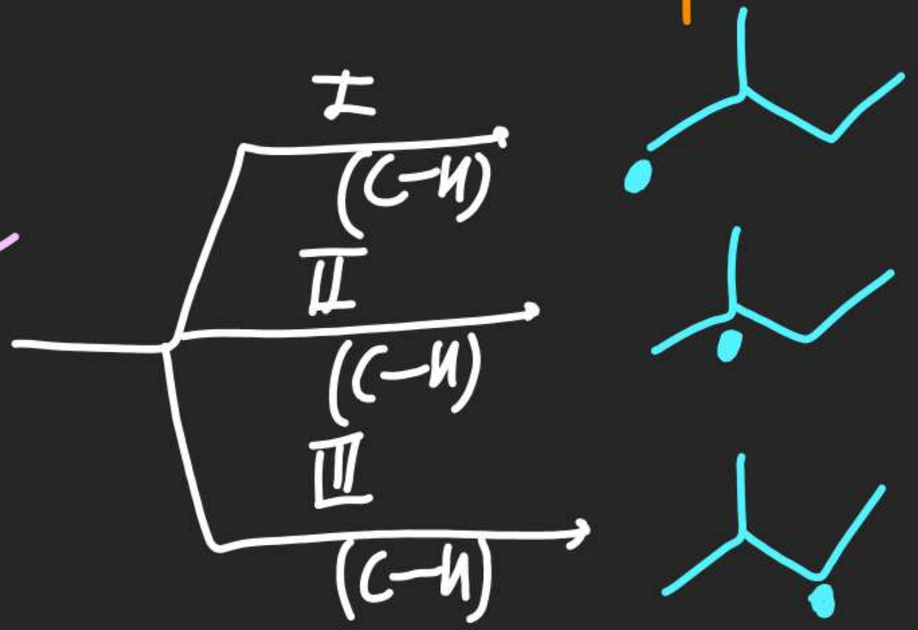
IUPAC (20)



$\gamma > P > u = t > q > s$

(#) Bond Energy :- $\propto \frac{1}{\text{Stability order of F. Radical.}}$

(1)



Stability order

II > III > I

BE ⇒ I > III > II

∴

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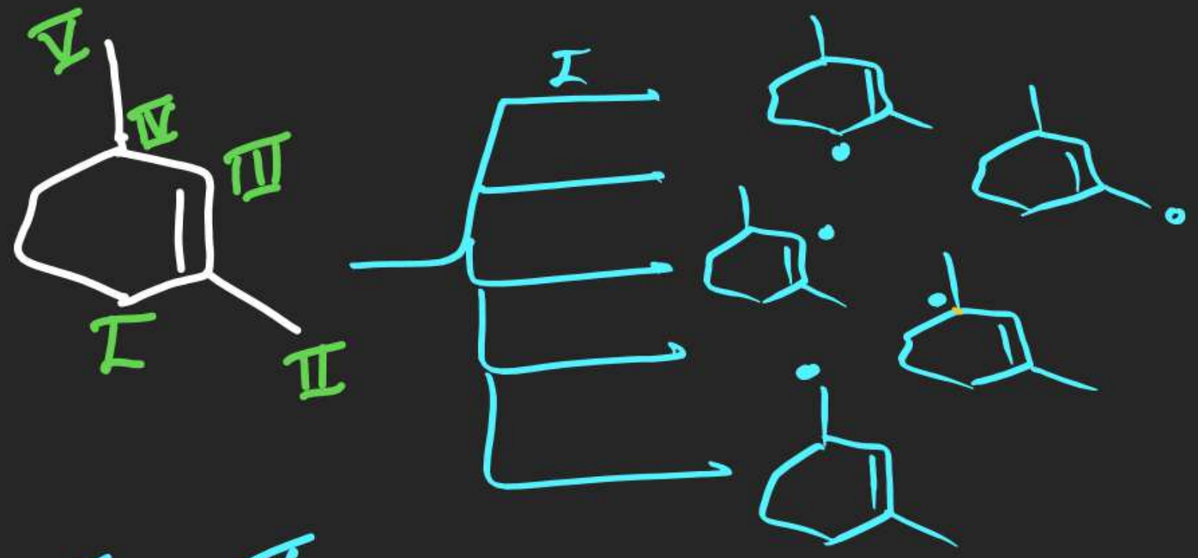
(2)



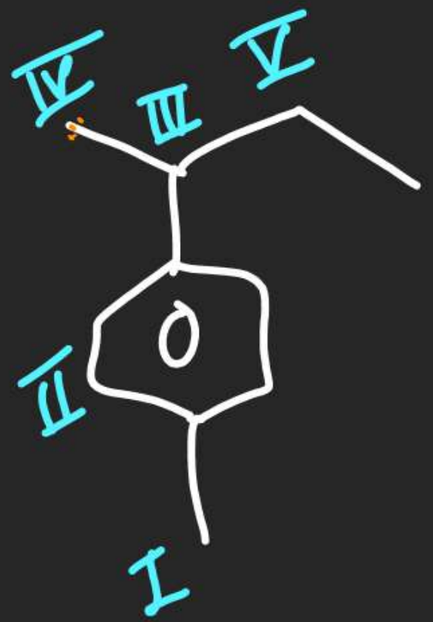
Stability order

IV > I > II > V > III

BE

III > V > II > I > IV

(3)



II > IV > V > I > III

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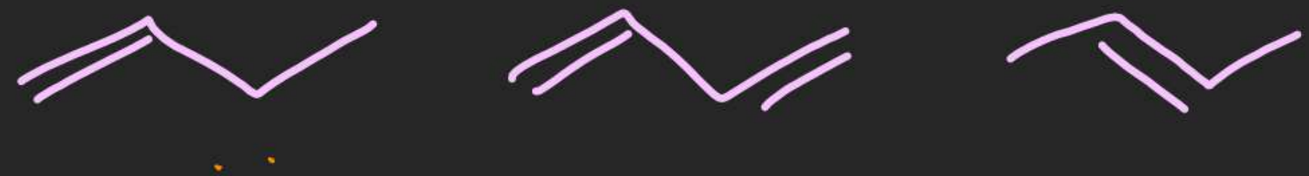
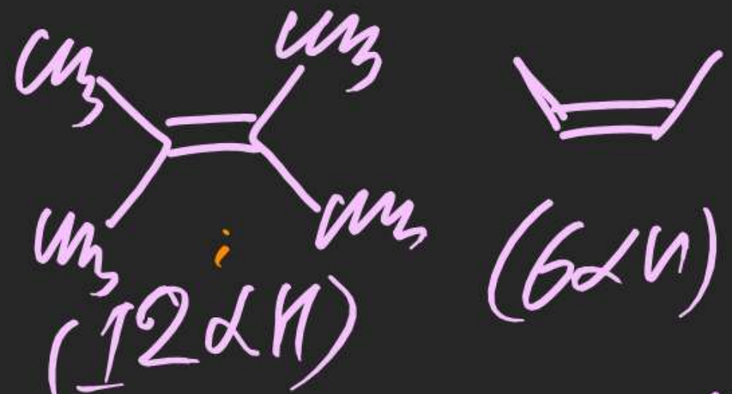
(2) 

2 > 1 > 3

$\frac{1}{\text{Stability}}$

(2 > 1)

(3) 

(12 α H)

(6 α H)

(2 > 1) No. of π Bonds

(4) 

(5) 

2 > 3 > 1

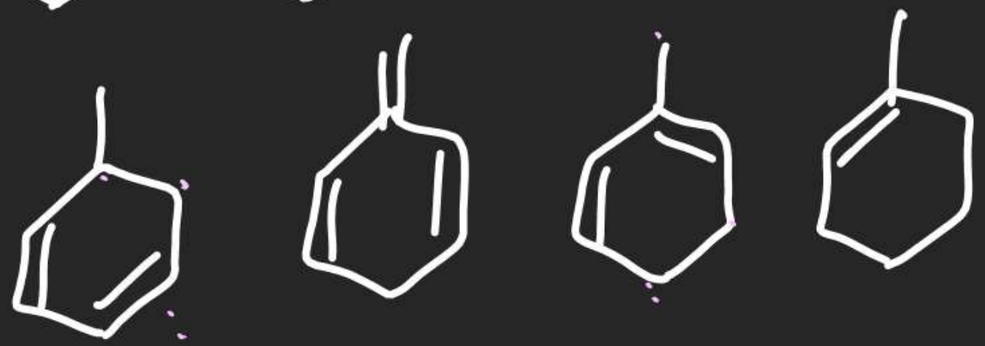
(6) 

(2>3>1)

(7) ——— (per π Bond)

(1>2>3)

(8) 
(3>2>1)

(9) 
(2>1>3>4)

M.I.P (10)

HOH

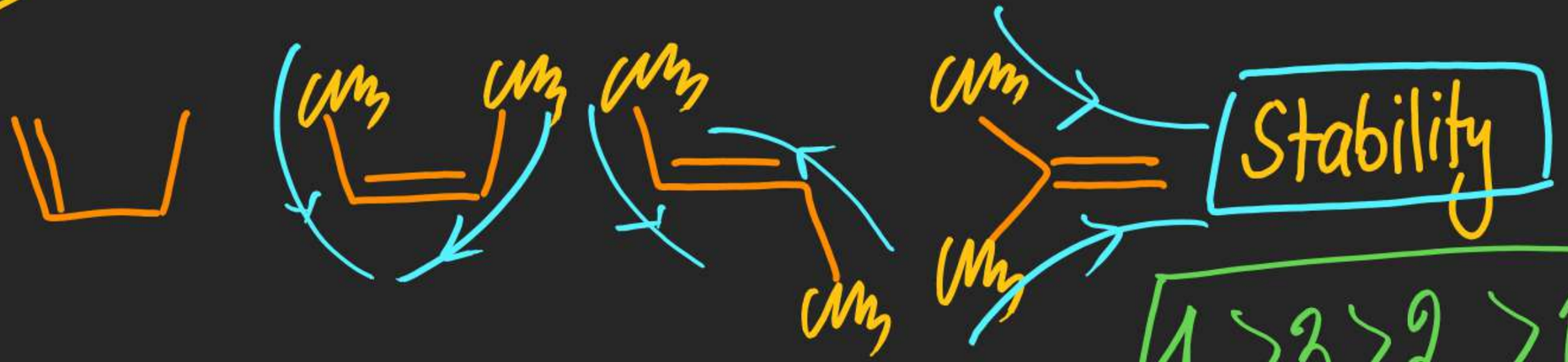
1 > 2 > 4 > 3

M.I.P (11)

HOC

1 > 2 > 3 > 4

M.I.P (12)



Stability

4 > 3 > 2 > 1