

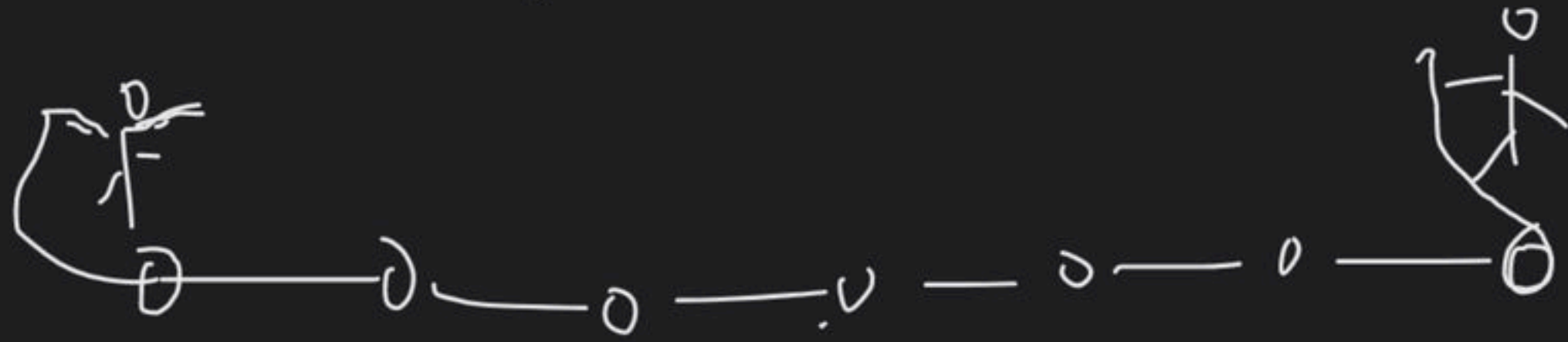


Hybridisation - I

Course on Chemical Bonding for Class XI 2023

$\mathbb{P} \subseteq \Sigma$ (rep) exist acc. to M.O.T

Catenation = chain formation tendency

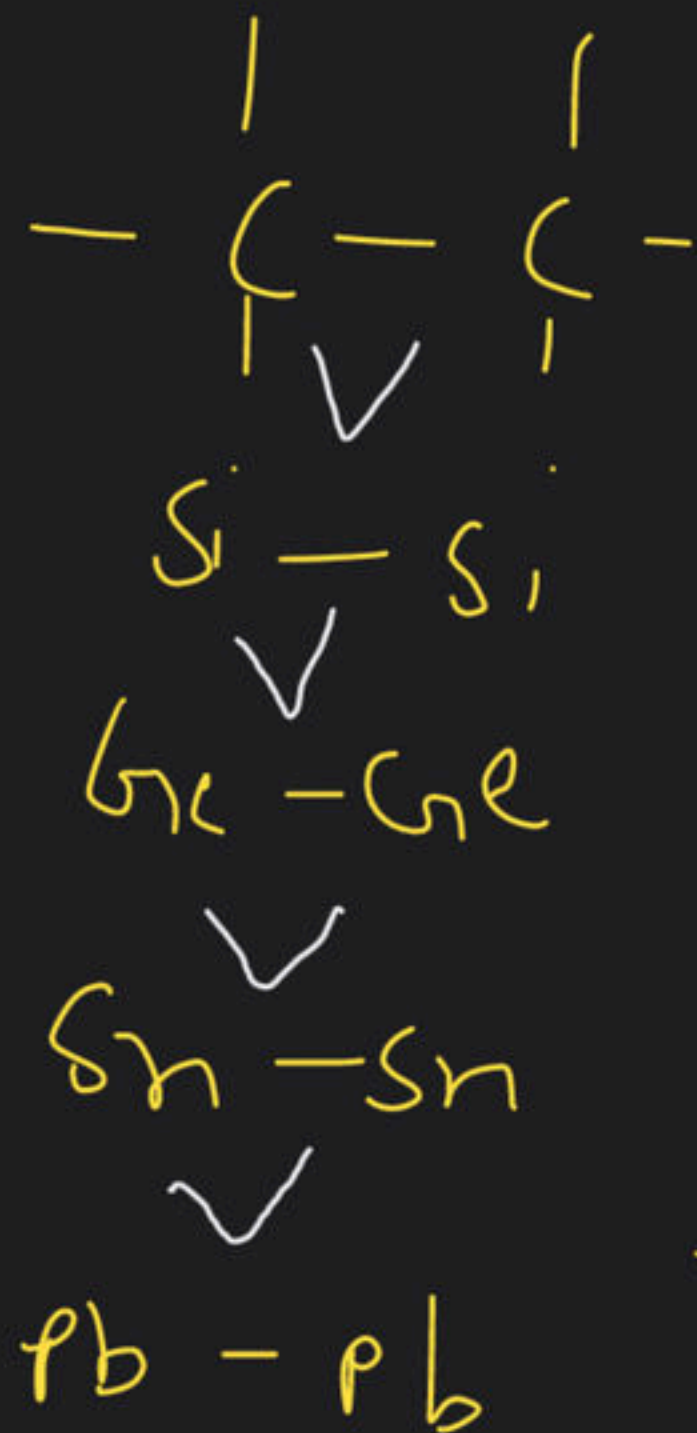


$B.P \propto \text{Catenation prop.}$

$$\downarrow B.E \propto \frac{1}{\text{size}} \uparrow$$

★

$$B.E \propto \frac{1}{\text{l.p} - \text{l.p rep:} \left[\begin{smallmatrix} \text{only} \\ 2^{\text{nd}} \text{ period} \end{smallmatrix} \right]}$$



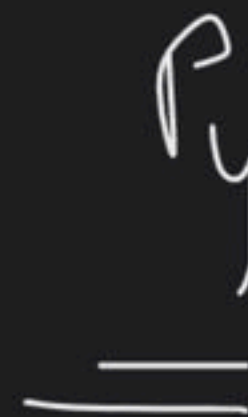
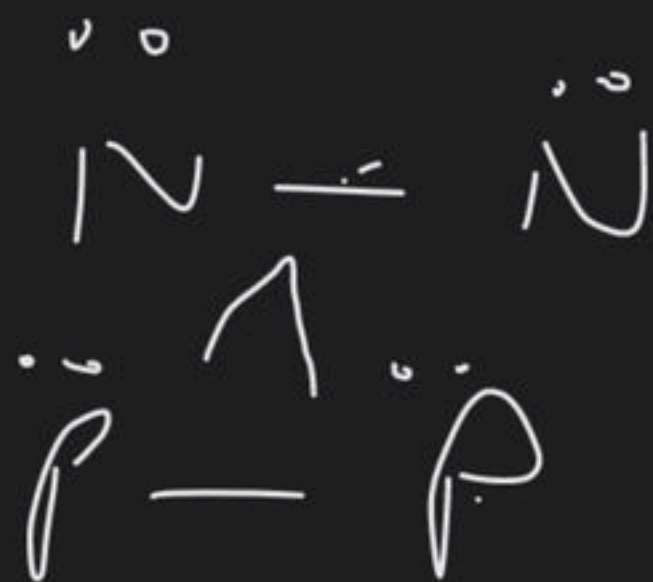
Size \uparrow

B.E. \downarrow Catenation \downarrow

and Which of the following has higher
Catenation property

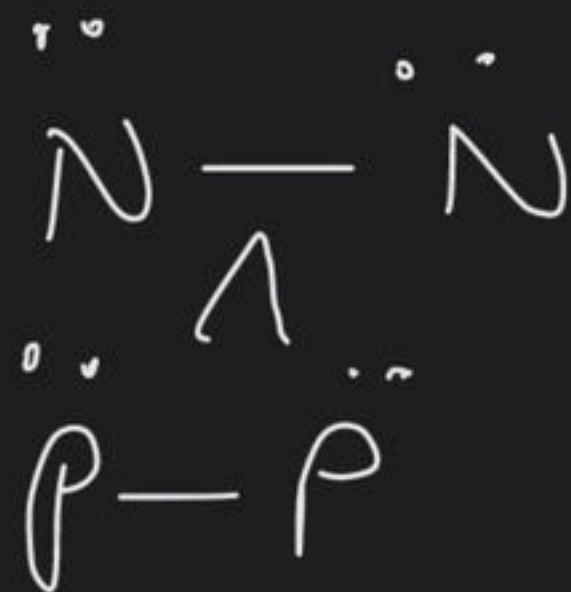


(3) both have equal (4) none



$$B_{\text{eff}} \propto \frac{1}{\text{size}}$$

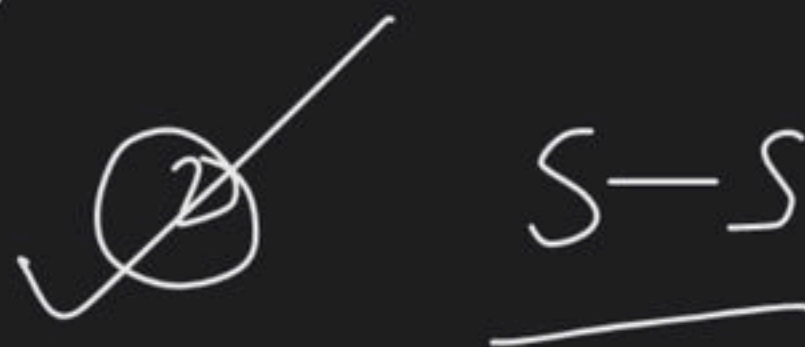
$$B_{\text{eff}} \propto \frac{1}{l \cdot P - l \cdot P_{\text{rep.}} \text{ only } [2^{\text{nd}} \text{ period}]}$$



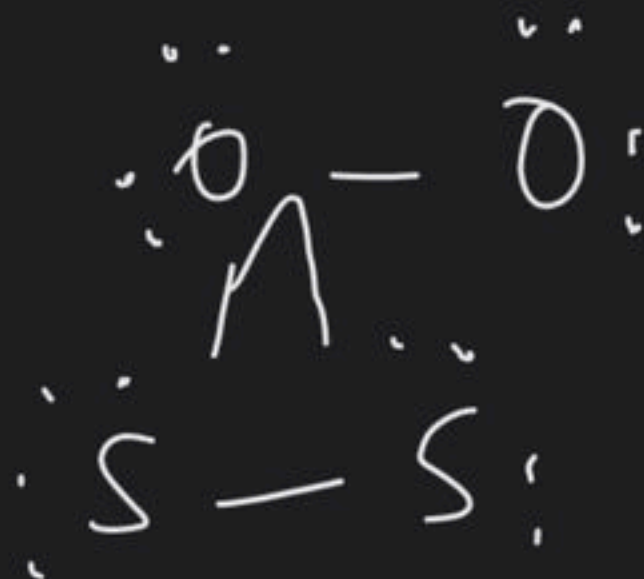
Ques

Which of
Catenation

the following has higher

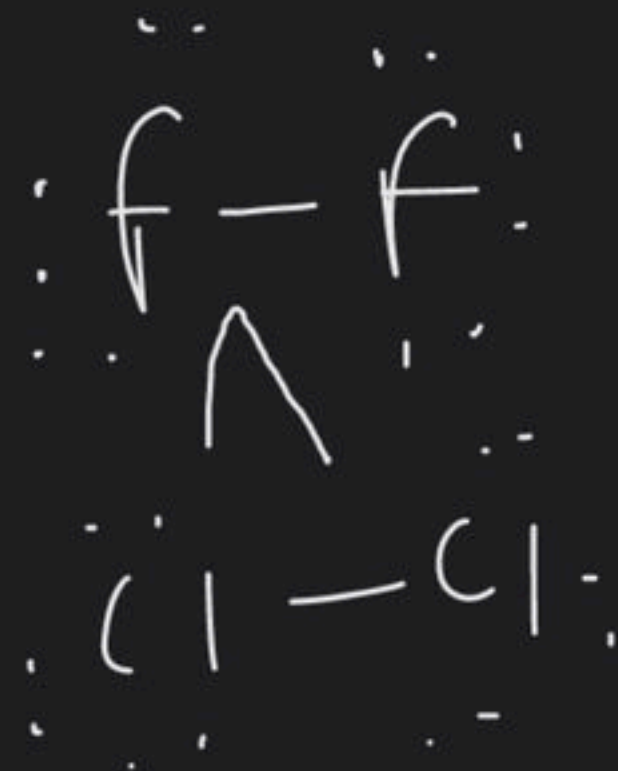


(c) both (d) none



Ques Which of the following has higher
Catenation

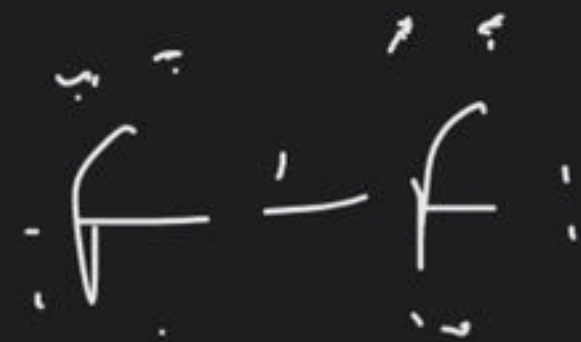
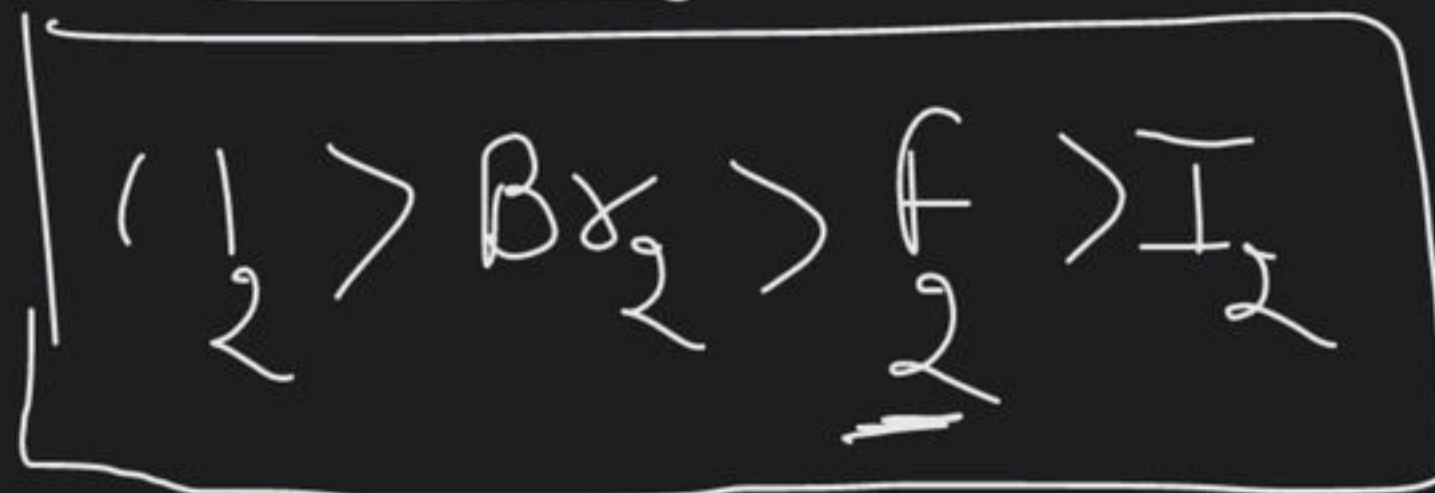
- ~~①~~ Cl-Cl ② F-F ③ Br-Br ④ I-I



Ques

Order of B.O.E

★



my

p-r s-s
—————>

$$B_0 E \propto \frac{1}{\text{size}}$$

$$\downarrow B_0 E \propto \frac{1}{\text{L.P.} - \text{L.P.} (2^{\text{nd}})}$$

$$\begin{array}{c} \text{f} \rightarrow \text{f} \rightarrow 2^{\text{nd}} \\ \hline \left\{ \begin{array}{c} \text{cl} - \text{cl} \\ \hline \text{B}_2 - \text{B}_2 \\ \text{I} - \text{I} \end{array} \right\} \end{array} \quad \underline{\underline{\text{cl} - \text{cl}}} > \text{B}_2 - \text{B}_2 > \text{f} - \text{f}$$



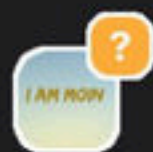


Question

from YuvrajVidh...

sir apke liye _^_





Question

from MOIN SHAIK...

Sir it just for fun





Question

from XI Priyans...

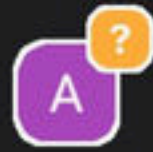
sir p-p and s-s wala samjha dijiye pls sir ki kiski catn.
property jyada hai



size ↓

↓ B.E. & ↓
size ↑





Question
from Anurag

SKM SIR IN CHAT

unacademy

LIVE

Wave number ($\bar{\nu}$) = No of waves in unit distance

$$\bar{\nu} = \frac{1}{\lambda}$$

Electromagnetic radiation (wave) or light

Deepanshu XD

Romant: De... OF

Kashan XD

Ansh XD

Prayansh XD

Kishan XD

Prince Jha XD

Elangor XD

Saurabh xdsdhd

Aparth XD

Bhutan Prati... XD

Romant: De... XD0000

Khushi XD

Ditya N: XD00

Ashu Anil... 00000

Hilalav... More char me hatidoyd

Vijay XD

Deepanshu XD

Shreya XD

Deepanshu XD

Vansh XD

Sarwat XD

Vansh XD

Romant: De... SAMJ

Vansh X

Shreya XD

Vansh XD

Romant: De... XD

Pratibha XD

Arya XD

Rishi: Giffith XD

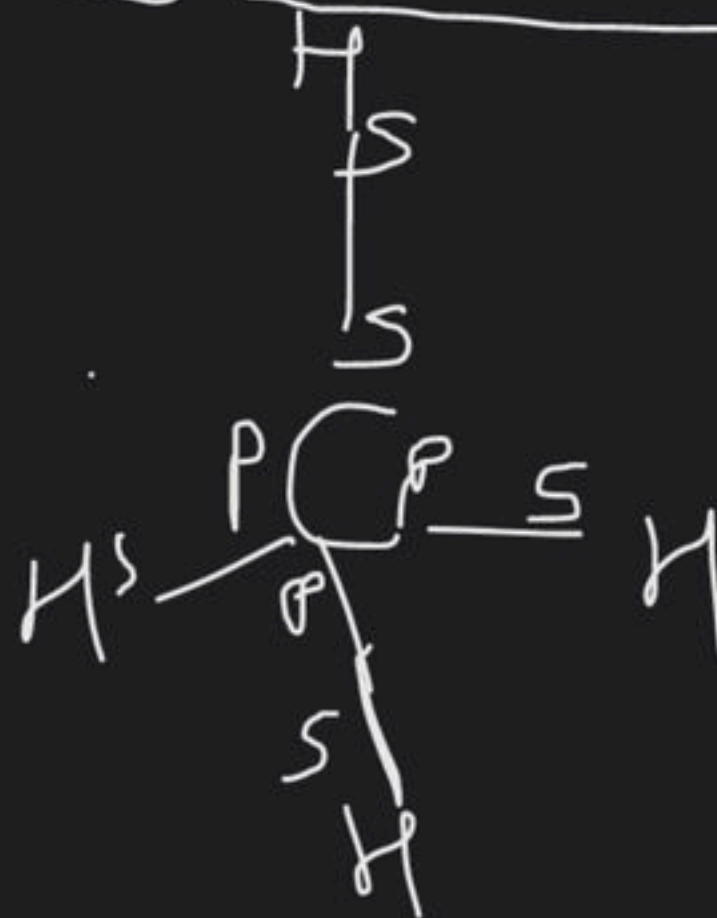
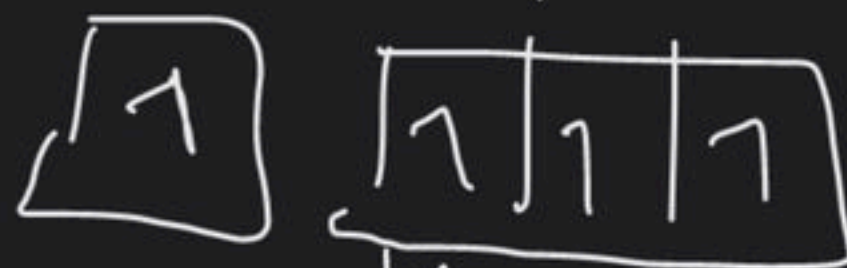
on video podv

Comment

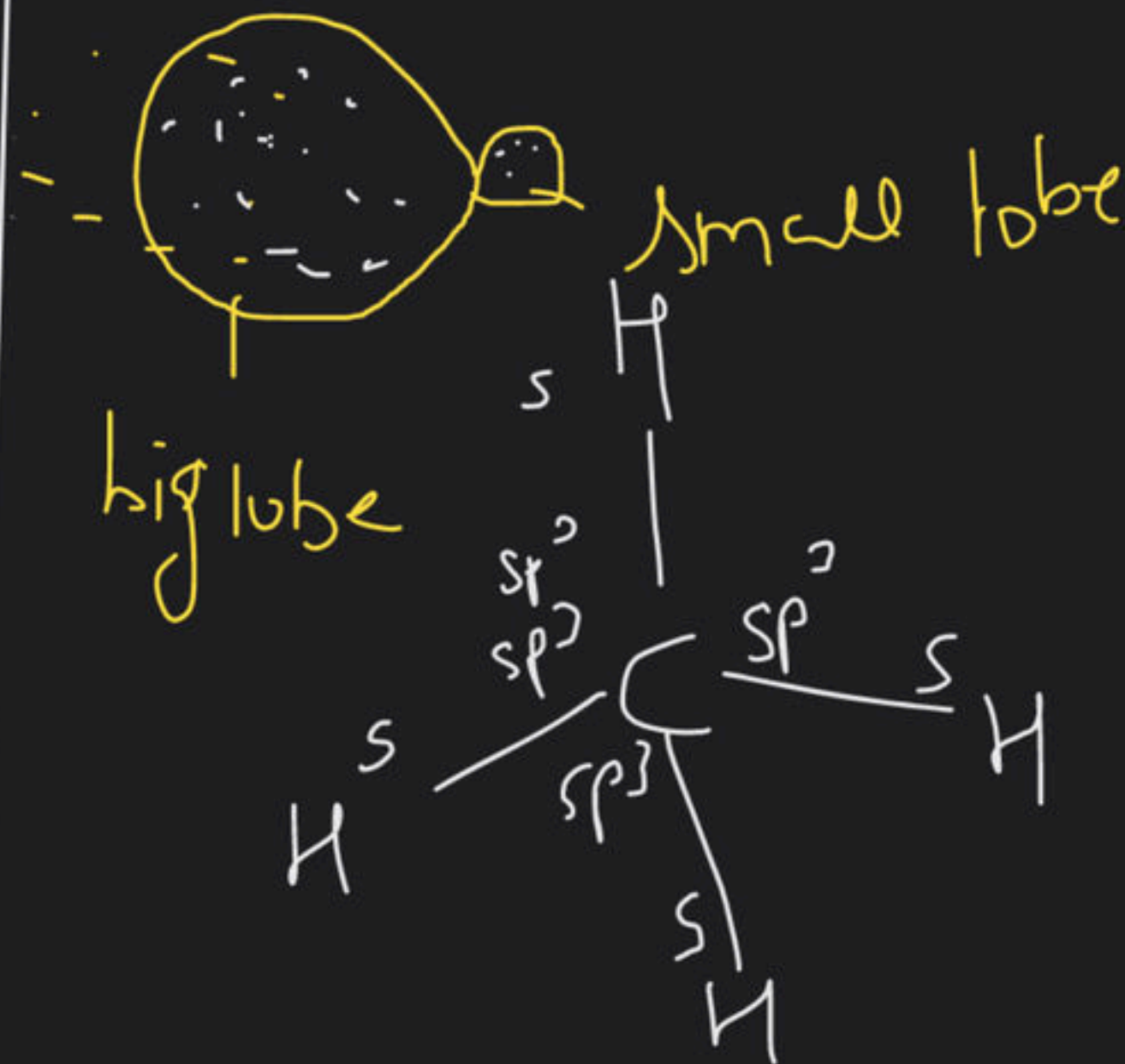
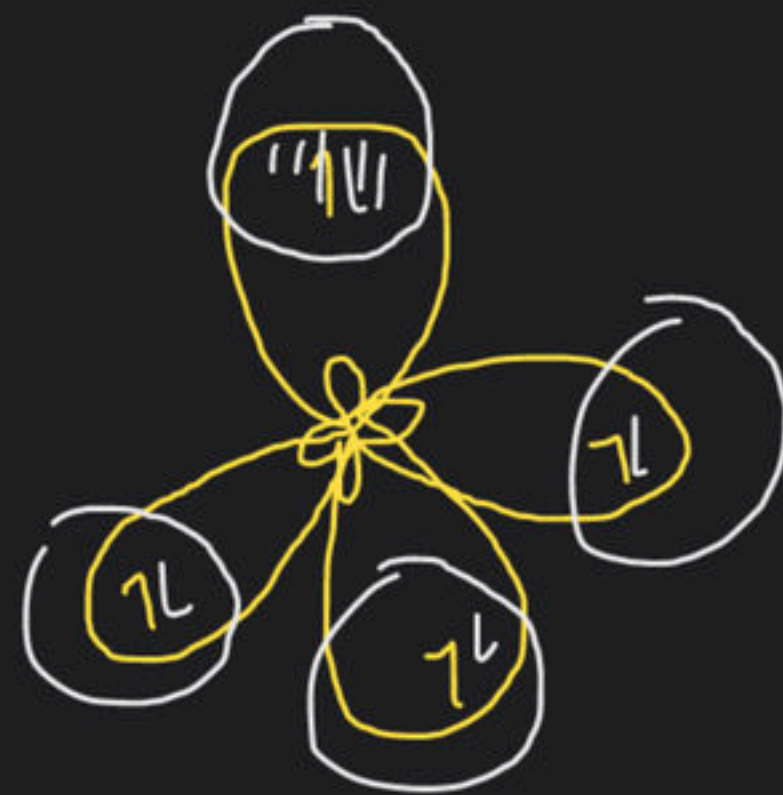
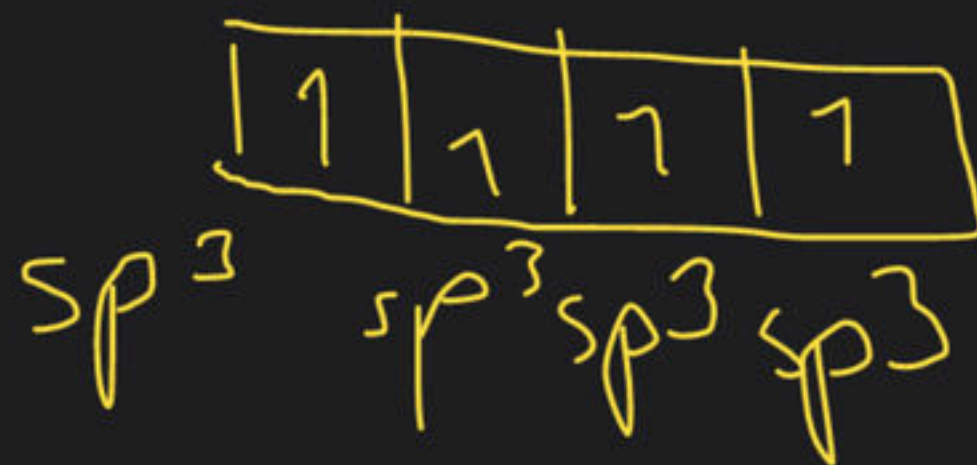
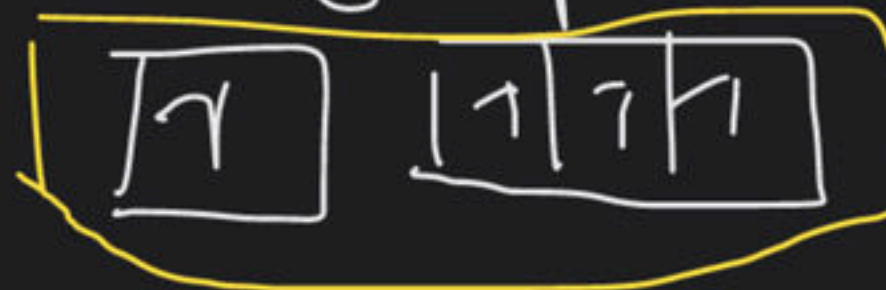
Hybridisation

$$CH_4 = 1$$

$$C = 1s^2 2s^2 2p^2$$



$$C = 1s^2 2s^2 2p^2$$



sp



sp²



sp³



Note: all hyb. orbitals have same shape but
diff size.

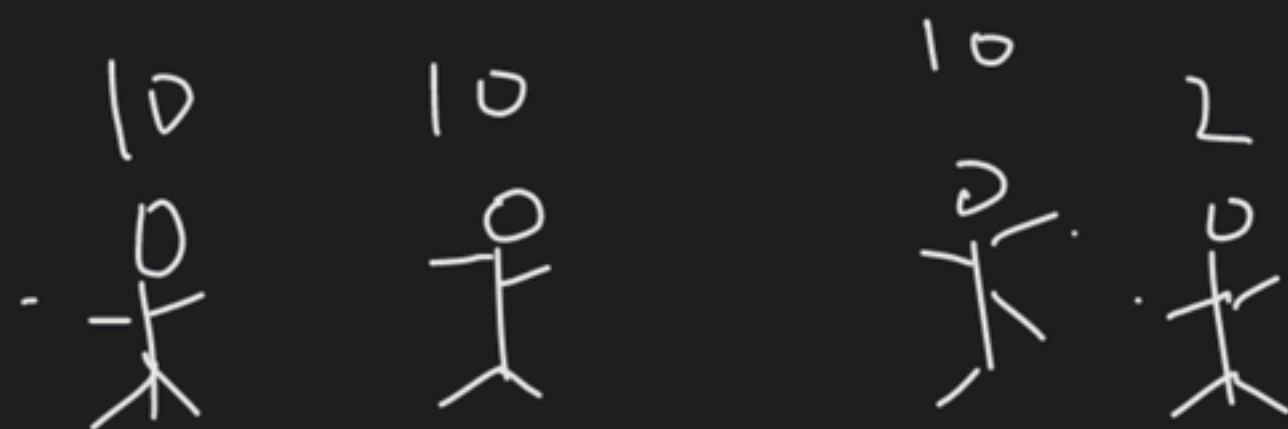


Hyb. \rightarrow Intermixing of atomic orbitals having less energy diff.

\rightarrow Hyb. first followed by overlapping

P

11



$$\underbrace{10 + 10 + 10 + 2}_{32}$$

$$\frac{32}{4} = 8$$