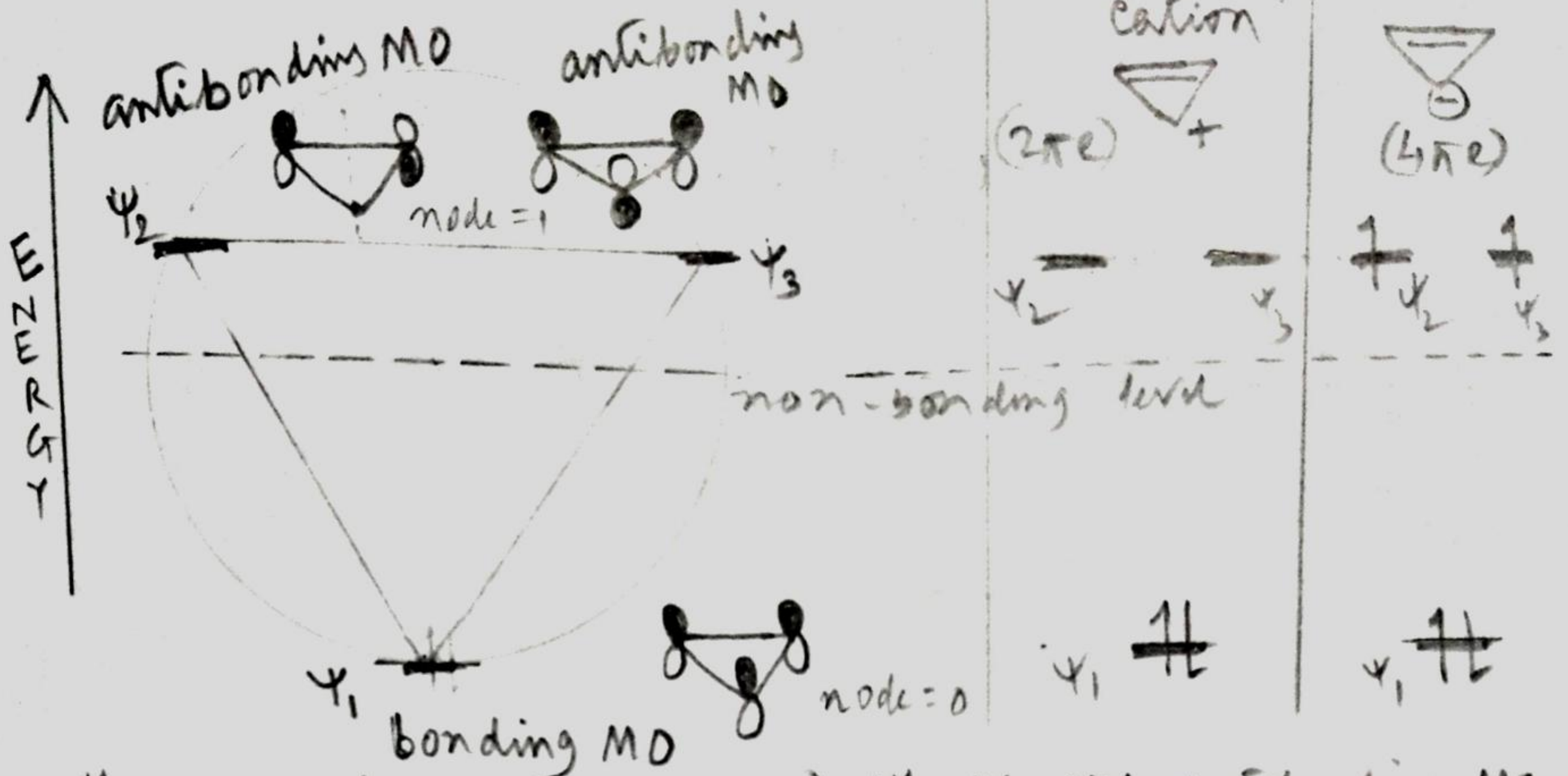


# $\pi$ -MOs of CYCLIC

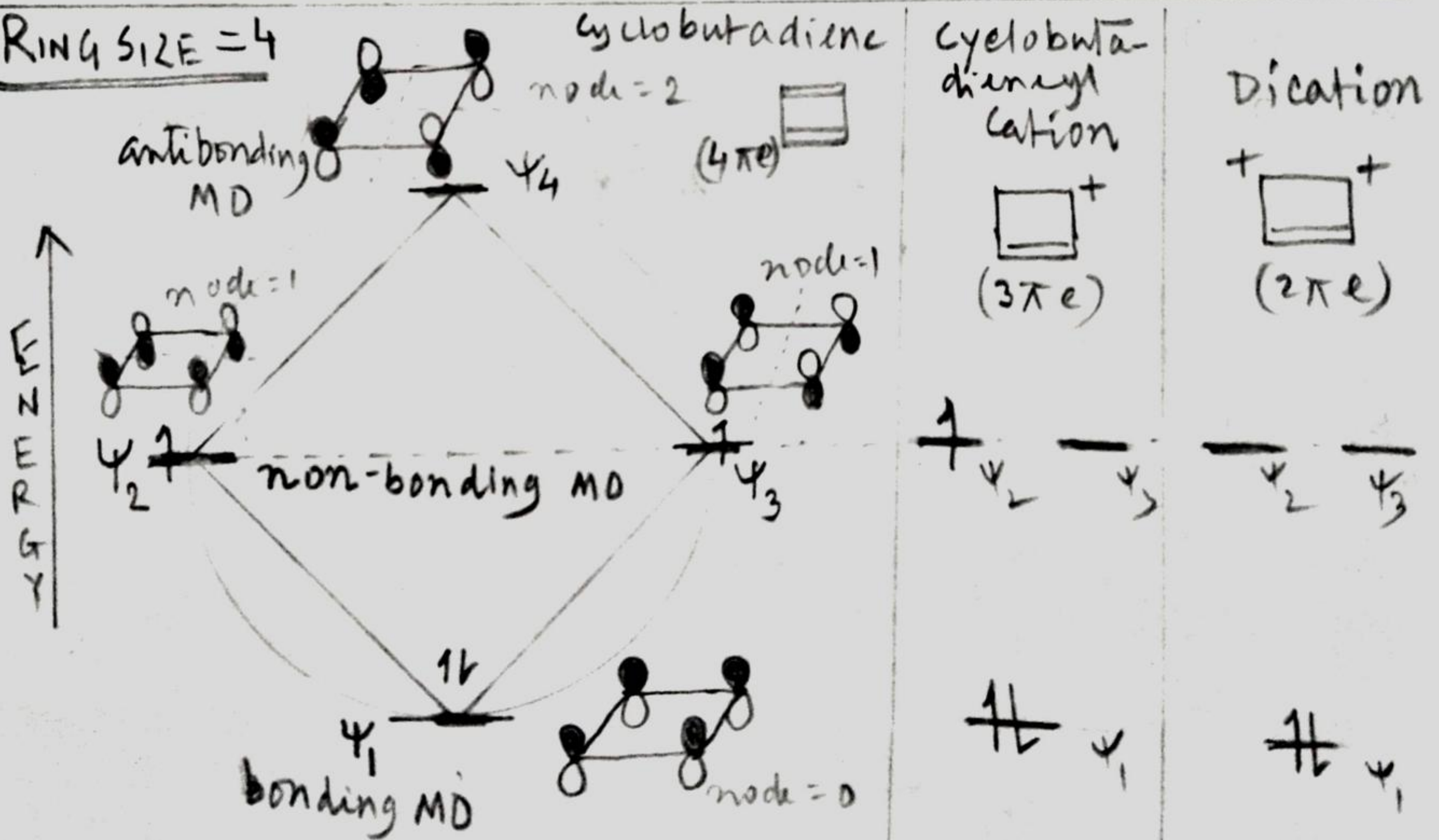
# p-ORBITAL SYSTEM

• RING SIZE = 3

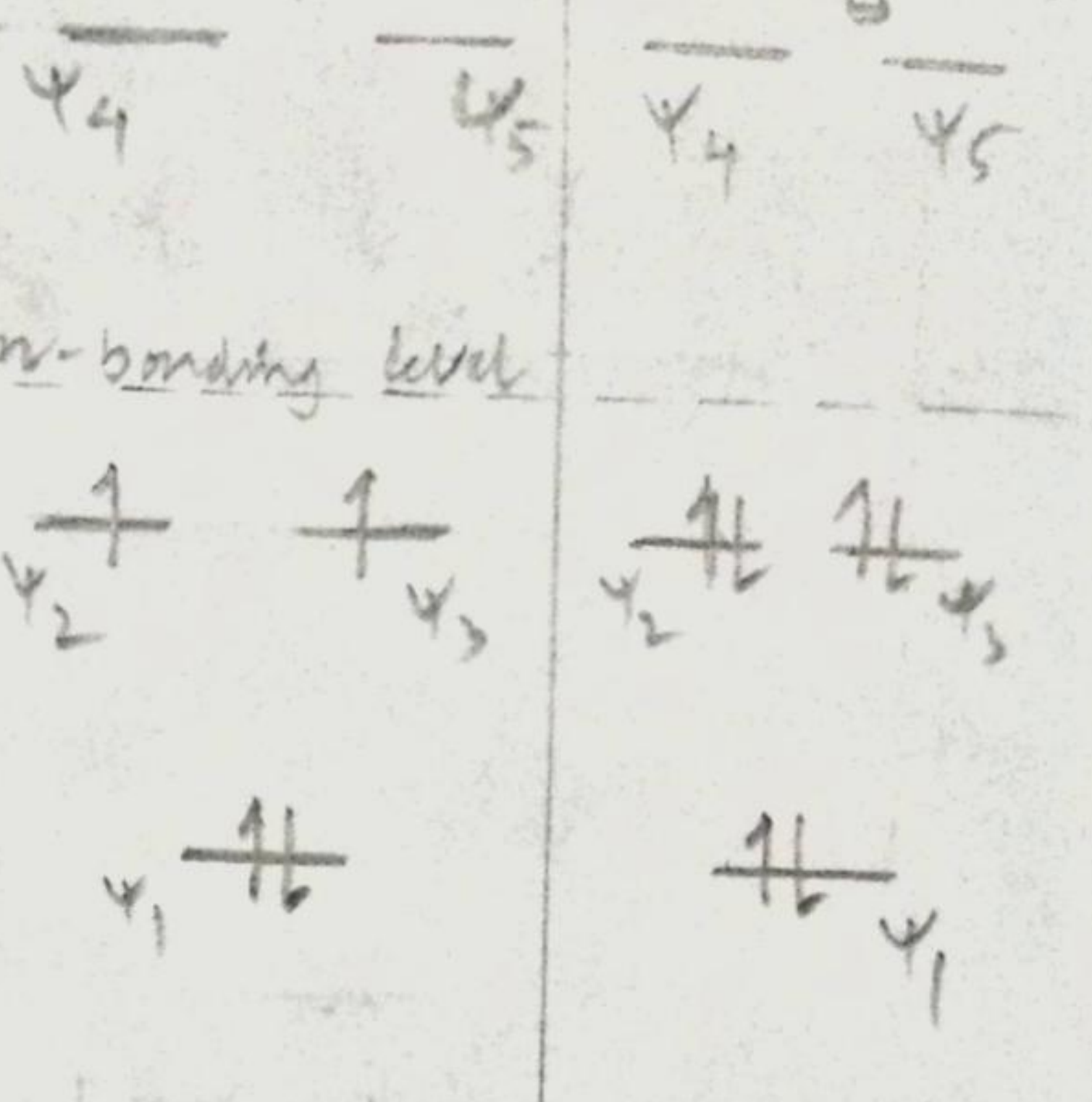
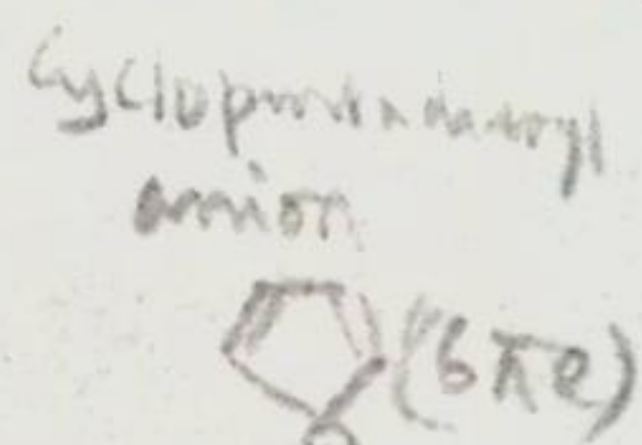
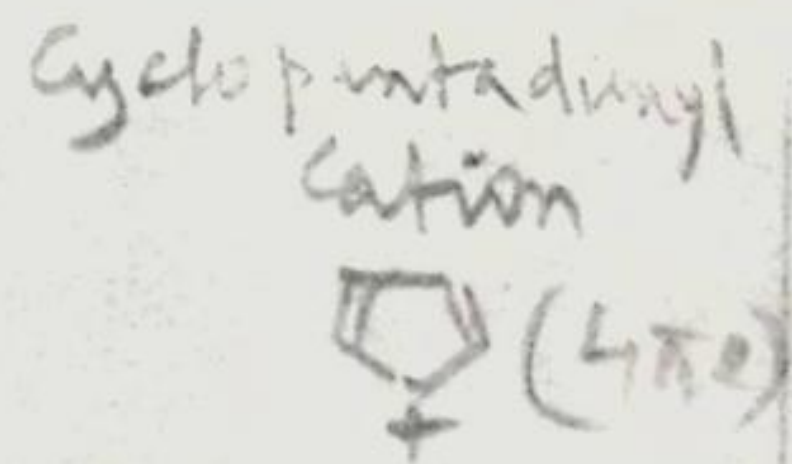
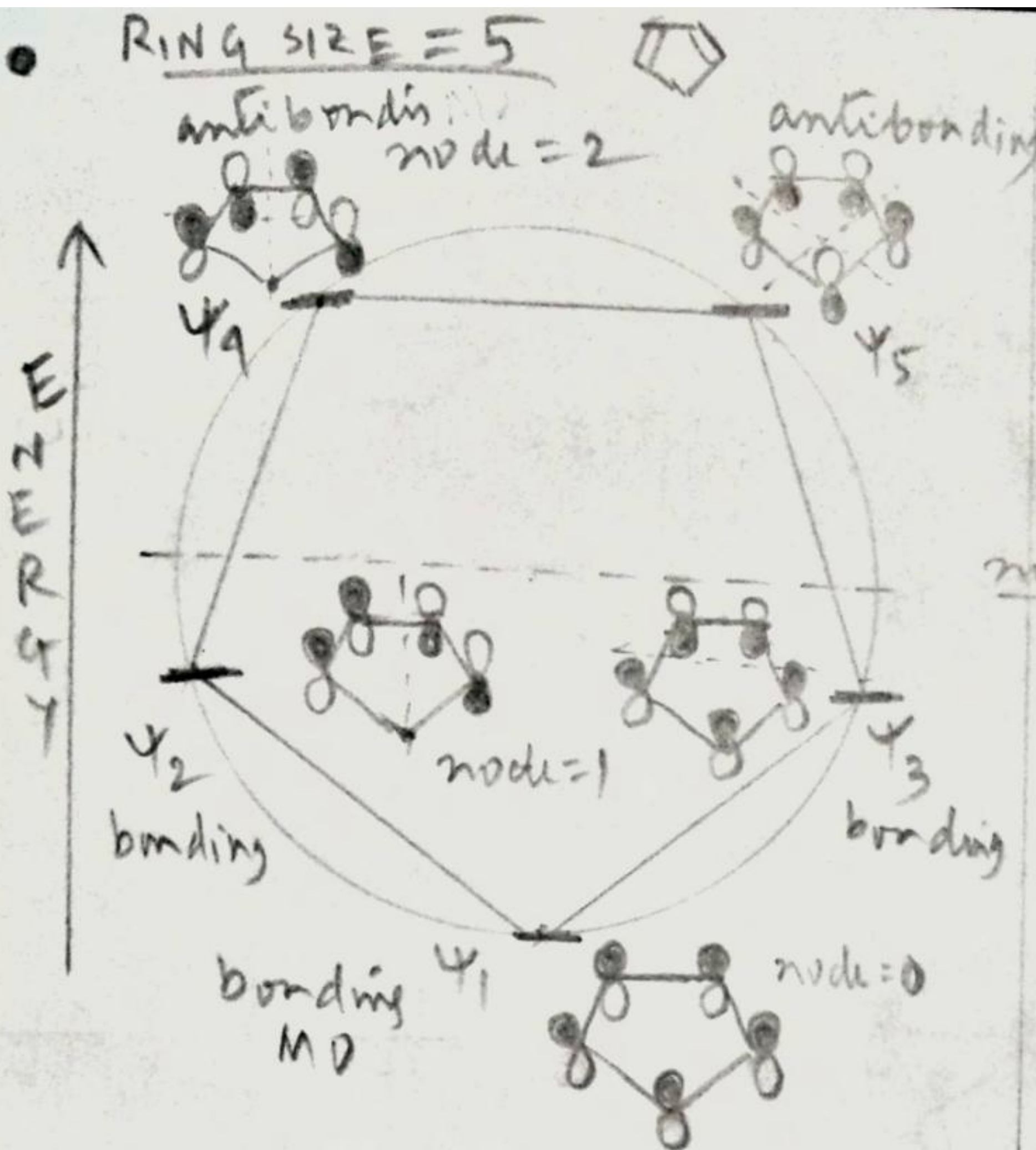


Here,  $\psi_1$  is bonding MO and  $\psi_2, \psi_3$  are antibonding MO

• RING SIZE = 4

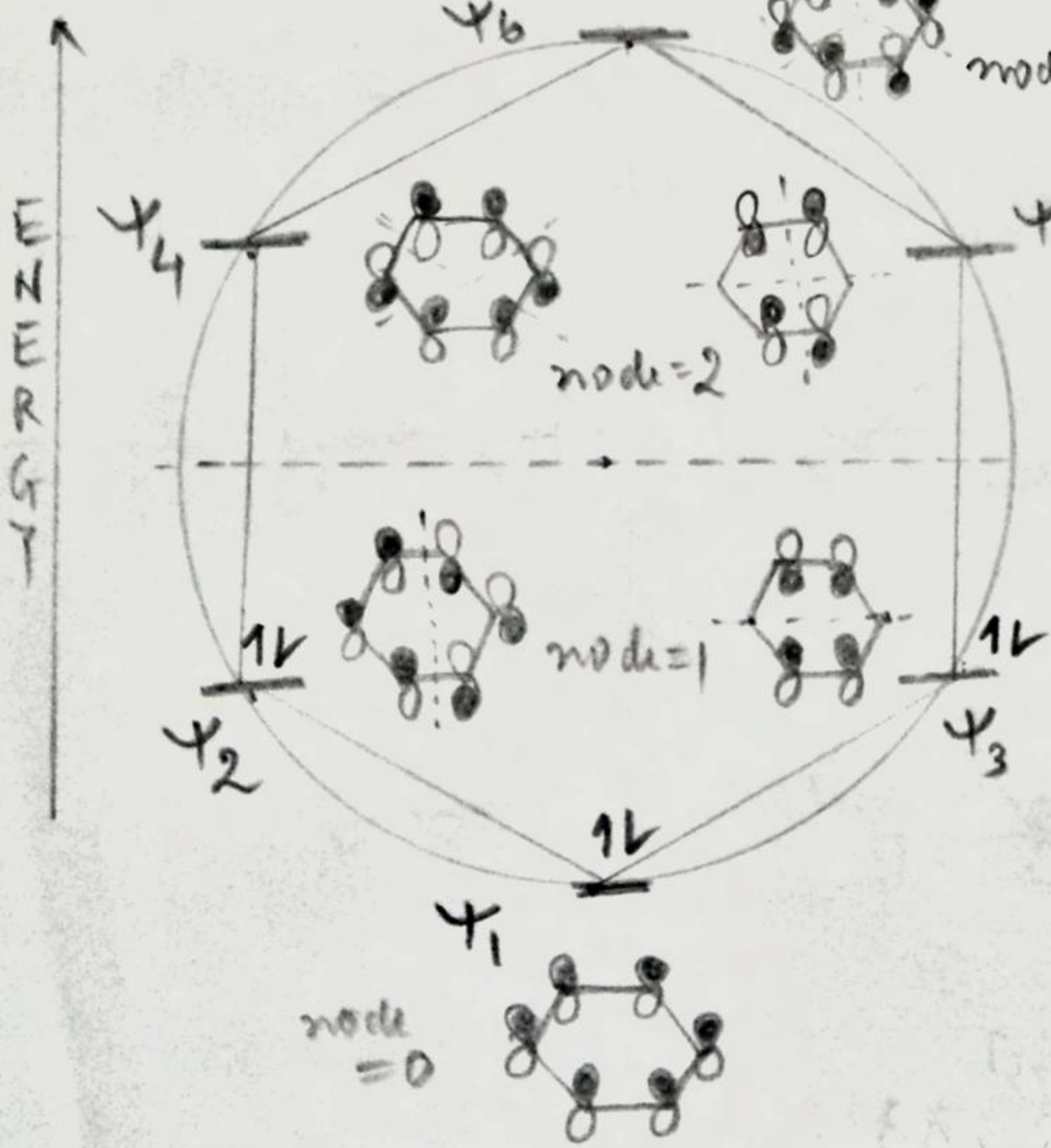


Here,  $\psi_1$  is bonding MO  
 $\psi_2$  and  $\psi_3$  are nonbonding MO  
 $\psi_4$  is antibonding MO



Here  $\Psi_1, \Psi_2, \Psi_3$  are bonding MO,  $\Psi_4, \Psi_5 \rightarrow$  antibonding MO

**RING SIZE = 6** i.e. Benzene (6πe)



non-bonding level

$\Psi_1, \Psi_2, \Psi_3 \rightarrow$  bonding MO  
 $\Psi_4, \Psi_5, \Psi_6 \rightarrow$  antibonding MO