

P7. - USE MOLECULAR-ORBITAL THEORY TO EXPLAIN WHY THE DISSOCIATION ENERGY OF N_2 IS GREATER THAN THAT OF N_2^+ , BUT THE DISSOCIATION ENERGY OF O_2^+ IS GREATER THAN THAT OF O_2

P8. - PREDICT THE RELATIVE STABILITIES OF THE SPECIES N_2 , N_2^+ , AND N_2^- .

P9. - FOR A LINEAR XY_2 MOLECULE, DRAW A SCHEMATIC REPRESENTATION OF THE $1\pi_u$, $2\pi_u$, AND $1\pi_g$ ORBITALS

P10. - EXPLAIN WHY THE DOUBLY DEGENERATE $1\pi_u$ ORBITALS FOR A LINEAR XY_2 MOLECULE DO NOT REMAIN DEGENERATE WHEN THE MOLECULE IS BENT

CH4 GRAY
PROBLEMS
2, 6, 10, 14. - d, e, f
15, 16