

## Experimental Data for First-Row Diatomics

Molecule	Bond Order	Bond Length (Å)	Bond Energy (kJ/mol)
$\text{H}_2^+$	0.5	1.05	255
$\text{H}_2$	1	0.74	432
$\text{He}_2^+$	0.5	1.08	322
$\text{He}_2^{2+}$	1	0.70	???

**For a given pair of atoms, increasing bond order leads to shorter and stronger bonds.**