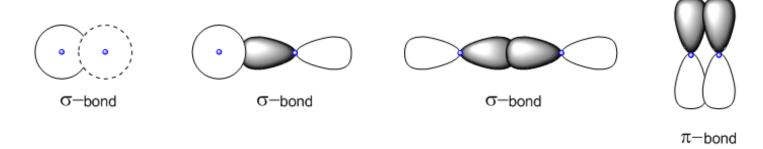
CONCEPT: MOLECULAR ORBITAL THEORY

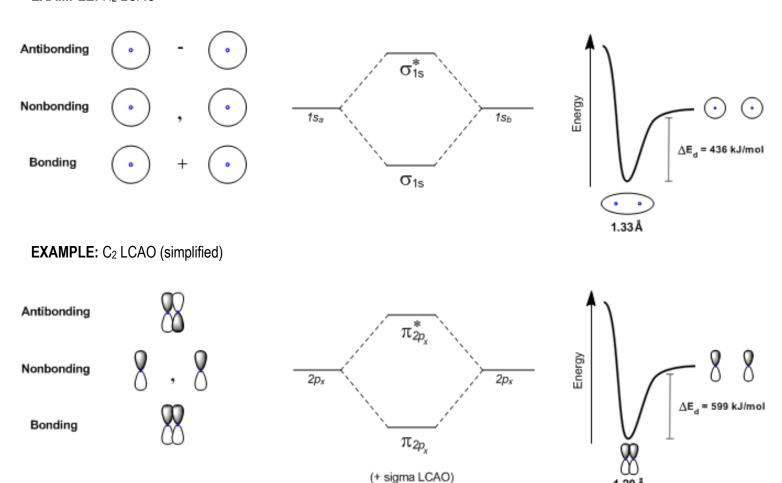
When atomic orbitals overlap constructively, they create unusual regions of shared electron density called _

• The type of bond created is determined by how many regions are overlapping



We can use a model called the Linear Combination of Atomic Orbitals (LCAO) using addition and subtraction of orbitals to indicate the type of interference. This way we can determine the mathematical energy levels of all possible molecular orbitals.

EXAMPLE: H₂ LCAO



1.20 Å