## Symmetry-Adapted Linear Combinations of Atomic Orbitals

$D_{\text {ch }} \quad C_{2 \mathrm{v}}$

$\pi_{\mathrm{g}} \quad \mathrm{A}_{2}$

$\begin{array}{ll}\pi_{u} & B_{1}\end{array}$

$\begin{array}{ll}\sigma_{u} & B_{2}\end{array}$

$\mathrm{A}_{1}$

$\mathrm{B}_{2}$

$D_{3 \mathrm{~h}} \quad C_{3 \mathrm{v}}$
$A_{1}^{\prime} \quad A_{1}$


$D_{4 \mathrm{~h}} \quad C_{4 \mathrm{v}}$
$\mathrm{A}_{1 \mathrm{~g}} \quad \mathrm{~A}_{1}$

$\mathrm{A}_{2 \mathrm{~g}} \quad \mathrm{~A}_{2}$


$\mathrm{B}_{2 \mathrm{~g}} \quad \mathrm{~B}_{2}$

$\mathrm{E}_{\mathrm{u}} \quad \mathrm{E}$



$\mathbf{B}_{2 \mathrm{u}} \quad \mathbf{B}_{2}$ Coser





