

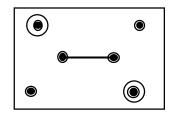
## The Problem

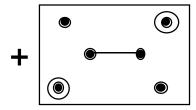
 $O_2$ 

 $3\Sigma_g^-$ 

Carsten Byrman 1995 EZPP basis



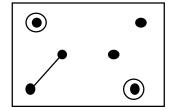


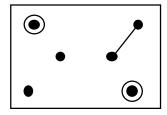


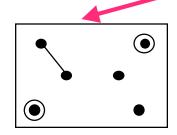
X Z *molecule* Y

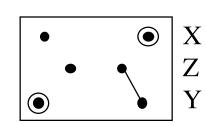
atomic

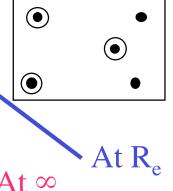
0.5 0.02

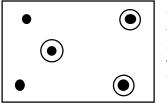






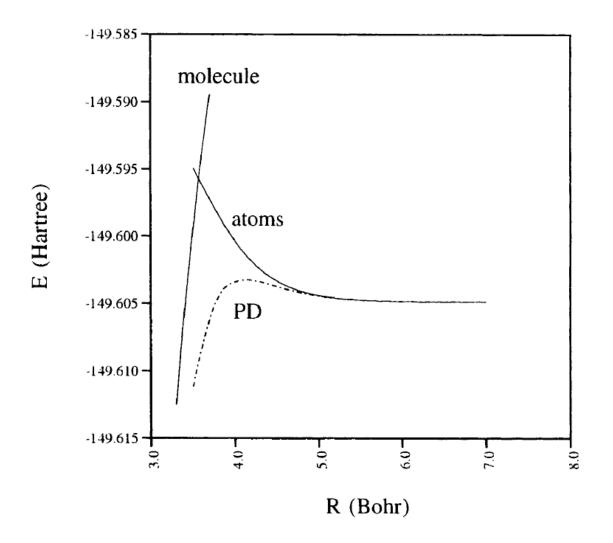






Only valence => < 75 % of exp

## Potential Energy Curve for O<sub>2</sub>, with constituents parts



At least minimum comes later then expected, when the atoms approach