## Inner Dihedral

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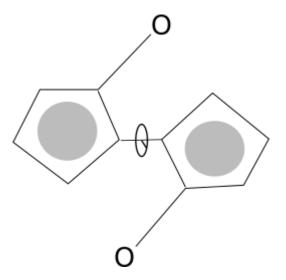


Figure 1: Schematic showing the 'inner dihedral'. In this configuration, the dihedral angle has a value of  $\psi=0$ 

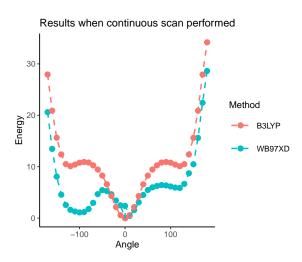
## Functions and Formulas

For organic molecules, dihedral parameters are often fitted with a dihedral with the form of a Ryckaert-Belleman function,

$$V_{rb}(\phi_{ijkl}) = \sum_{n=0}^{5} C_n \cos(\psi)^n$$

where  $\psi=\phi-180^{\circ}.$  We will initially use this functional form for our fitting as it is supported in Gromacs 5.1.4.

## QCC results



## MD results

