Piez - Alder $\equiv$ [4+2] cycloaddition

\[ \text{[2+2] addition:} \quad \begin{array}{c} \text{same face} \\ R \end{array} + \begin{array}{c} \text{opposite faces} \\ \text{same face} \end{array} \rightarrow R' \]

Piez - Alder is a suprafacial reaction because it is not possible for molecules of such small size (the π systems) to reach around and react on both faces simultaneously.