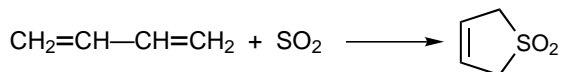


cheletropic reaction

A form of *cycloaddition* across the terminal atoms of a fully *conjugated system* with formation of two new σ -bonds to a single atom of the ('mono-centric') reagent. There is formal loss of one π -bond in the substrate and an increase in *coordination number* of the relevant atom of the reagent. An example is the *addition* of sulfur dioxide to butadiene:



The reverse of this type of reaction is designated 'cheletropic elimination'.
1994, 66, 1094