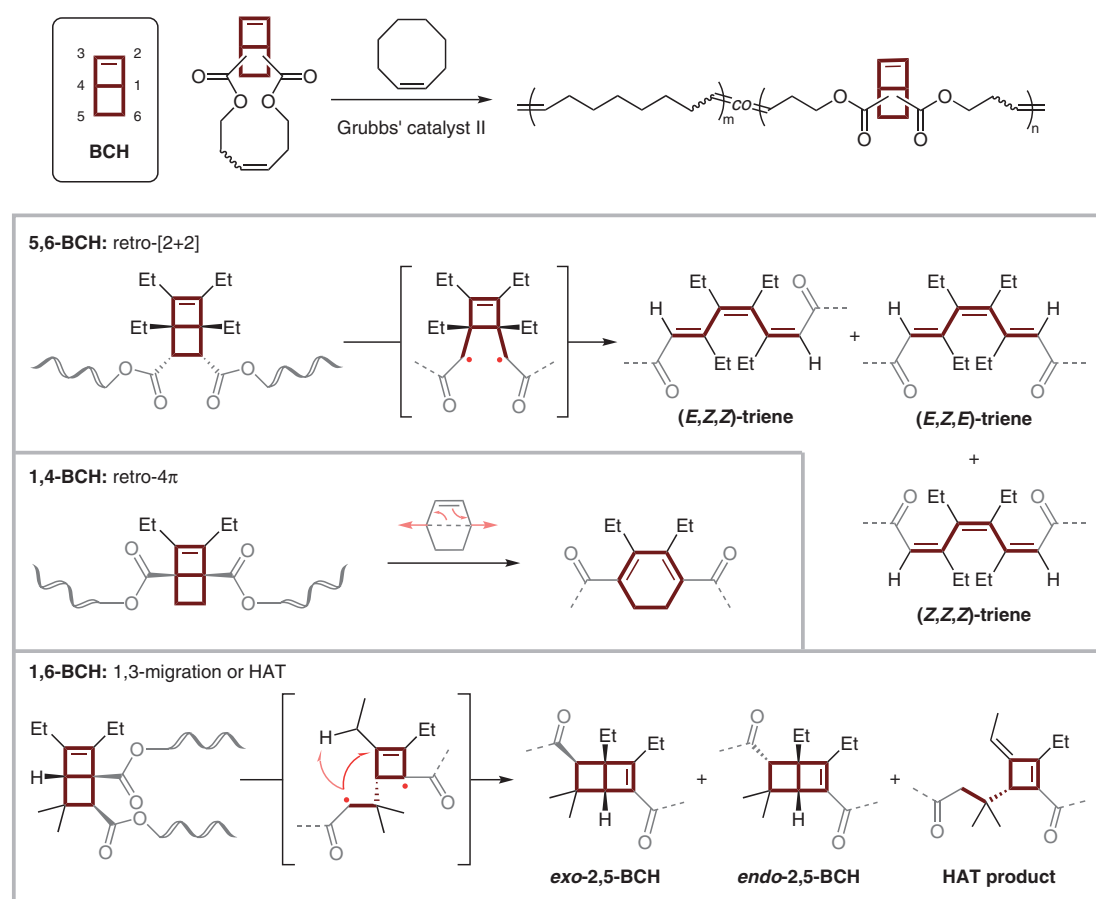


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Bicyclo[2.2.0]hexene: A Multicyclic Mechanophore with Reactivity Diversified by External Forces  
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## Regioselectivity in Mechanochemistry



**Significance:** The reaction selectivity of mechanochemical ring-opening of bicyclo[2.2.0]hexene (BCH) derivatives is supposedly dependent on the direction of applied mechanical force, the experimental proof of which is demonstrated herein. A set of bicyclo[2.2.0]hexene (BCH) mechanophores having polymer substituents tethered at different positions are synthesized and shown to go down predictable reaction paths upon sonication.

**Comment:** The ring-opening metathesis polymerizations of *cis*-cyclooctene are first conducted with various BCH derivatives introduced as the comonomer. In spite of the different substitution positions of the BCH mechanophores, predicted bond scission consistently occurs between the polymer-anchoring carbons.

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