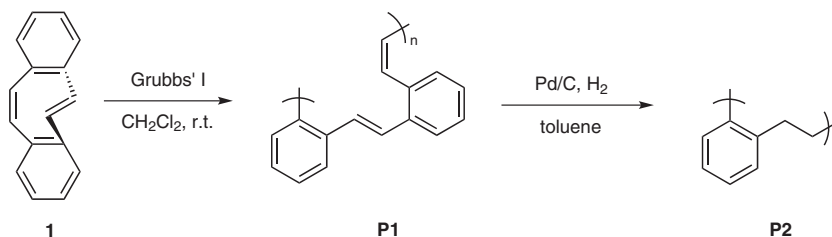
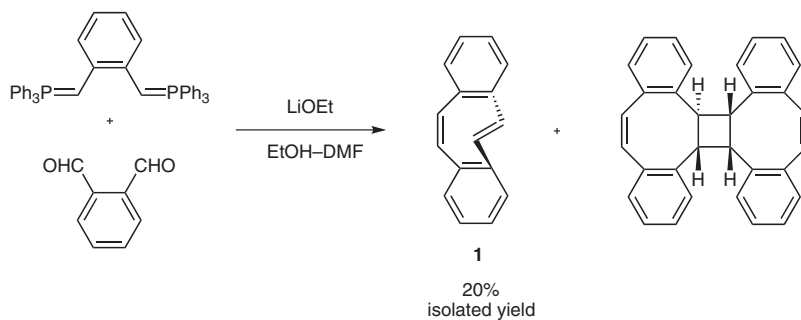


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Helical (5*Z*,11*E*)-Dibenzo[*a,e*]cyclooctatetrene: A Spring-Loaded Monomer  
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## A Spring-Loaded ROMPer



**Significance:** The [8]annulene **1**, with one double bond in the *trans* configuration was synthesized in 20% yield on a 20 mmol scale. Compound **1** was shown to be kinetically stable but thermodynamically unstable, with the *cis,cis* isomer being thermodynamically favored. Compound **1** winds into a helical conformation in the solid state and both enantiomers of **1** are present within the unit cell of a crystal. The calculated strain energy for **1** is 18 kcal/mol, which allows it to participate in ring-opening metathesis polymerization (ROMP), unlike its *cis,cis* isomer. Compound **1** forms living polymers when mixed with Grubbs' catalyst (1<sup>st</sup> gen.) and additional tricyclohexylphosphine ligand. In this fashion, regioregular poly(phenylene vinylene) (PPV) with all-*ortho* linkages was prepared and its hydrogenated derivate characterized by GPC and <sup>1</sup>H and <sup>13</sup>C NMR spectroscopy.

**Comment:** The authors reinvestigated chemistry pursued by Wittig et al. (*Justus Liebigs Ann. Chem.* **1955**, 593, 127) and correctly identified a monomer that displays unique reactivity and yields interesting polymers. The regioselectivity of the ROMP imparts a well-defined secondary structure to **P1** that can be exploited in sensing or molecular recognition schemes.

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