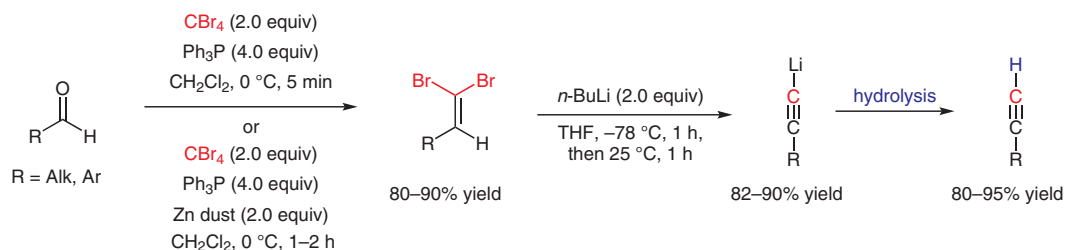


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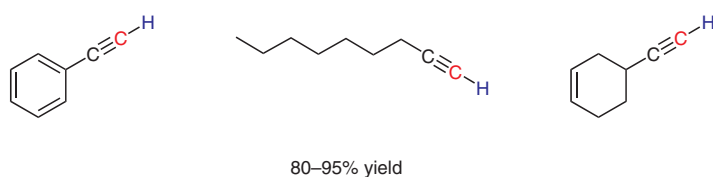
A Synthetic Method for Formyl → Ethynyl Conversion (RCHO → RC≡CH or RC≡CR')

Tetrahedron Lett. **1972**, *13*, 3769–3772.

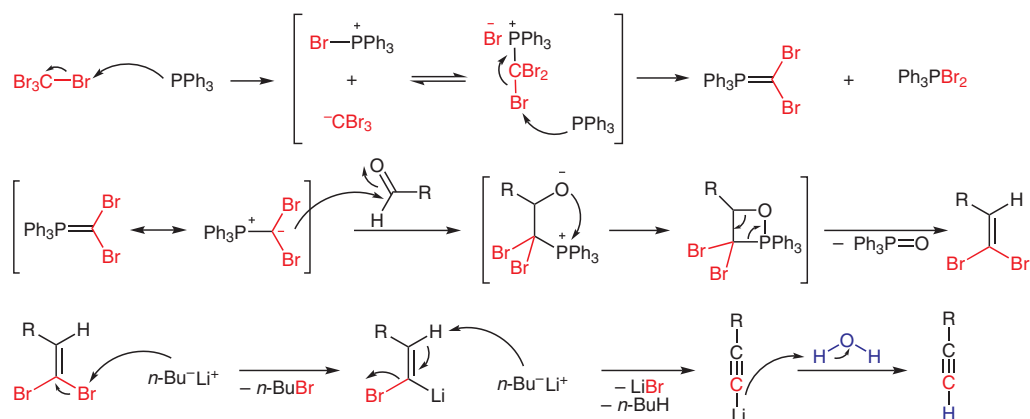
Corey–Fuchs Alkyne Synthesis



Selected examples:



Proposed mechanism:



Significance: In 1972, Corey and Fuchs reported a convenient transformation of aldehydes to the corresponding one-carbon chain-extended alkynes using carbon tetrabromide and triphenylphosphine and subsequently $n\text{-BuLi}$. The method provides the desired alkynes in good yields.

Comment: The procedure comprises two steps. The synthesis of the dibromoolefin can be conducted in two ways in a Wittig-type reaction. In the second step, treatment of the prepared dibromoolefins with two equivalents $n\text{-BuLi}$ furnishes the desired terminal alkynes. Remarkably, the intermediate lithium acetylide can also be treated with a variety of electrophiles.