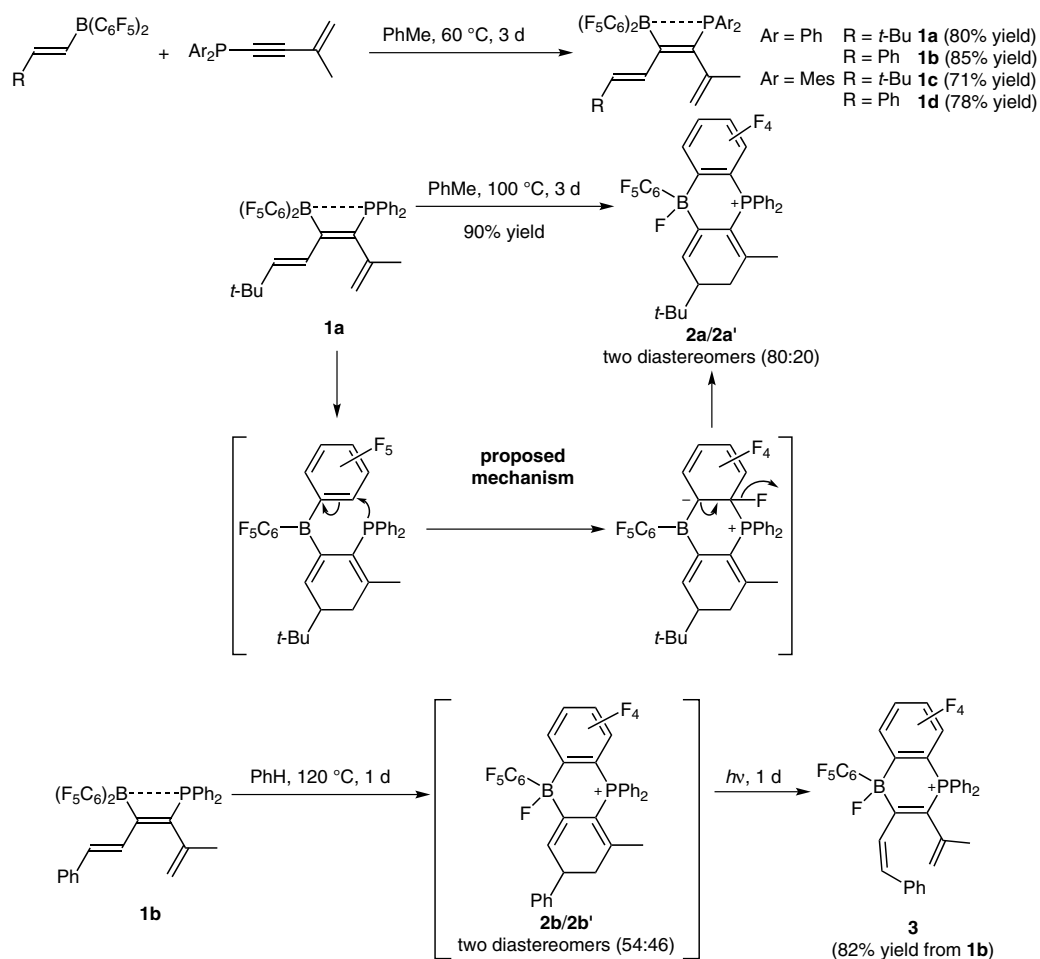


PB&J: Phosphorus and Boron at the Junction of Two π -Systems



Significance: The 1,1-alkenylboration of alkynes is an unique route to large conjugated π -systems. Erker and co-workers demonstrate that the 1,1-alkenylboration of diarylphosphino-enynes proceeds similarly to give hexatrienes **1**. Upon thermolysis, two concurrent transformations occur: 6π -electrocyclic ring closure of the hexatriene moiety and nucleophilic aromatic substitution (S_NAr) of a pentafluorophenyl group by the phosphine nucleophile to yield heterotricyclic products **2**.

Comment: These reactions are a convenient synthetic route to new molecules containing vicinal P/B Lewis pairs. Thermolysis products are only reported for **1a** and **1b**. Would the thermolysis of **1c** and **1d**, which contain bulky $(Mes)_2P$ nucleophiles, result in electrocyclic ring closure without concurrent S_NAr ?