Key words

palladium

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A Persistent Diazaheptacene Derivative

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Taking the Dimers Out of Diazaheptacenes

Significance: The authors have successfully designed, synthesized, and isolated the first persistent azaheptacene. The diazaheptacene in this work required four Si(s-Bu)₃-ethynyl groups to effectively prevent dimerization upon oxidizing to the final product **4**.

Comment: The key synthetic step was the fast oxidation using manganese oxide to convert **3** into **4**, which was carried out for no longer than forty seconds. The product **4** was stable for approximately one hour, after which dimerization products were detected. Alternative trialkylsilyl-ethynyl groups, such as the TIPS-ethynyl group, proved ineffective at impeding dimerization.