F. XU, X. XIAO, T. R. HOYE* (UNIVERSITY OF MINNESOTA, MINNEAPOLIS, USA)
Photochemical Hexadehydro-Diels–Alder Reaction
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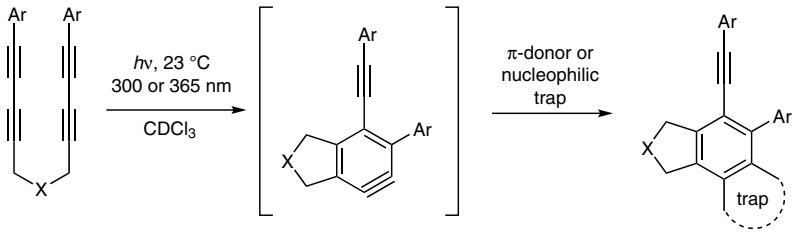
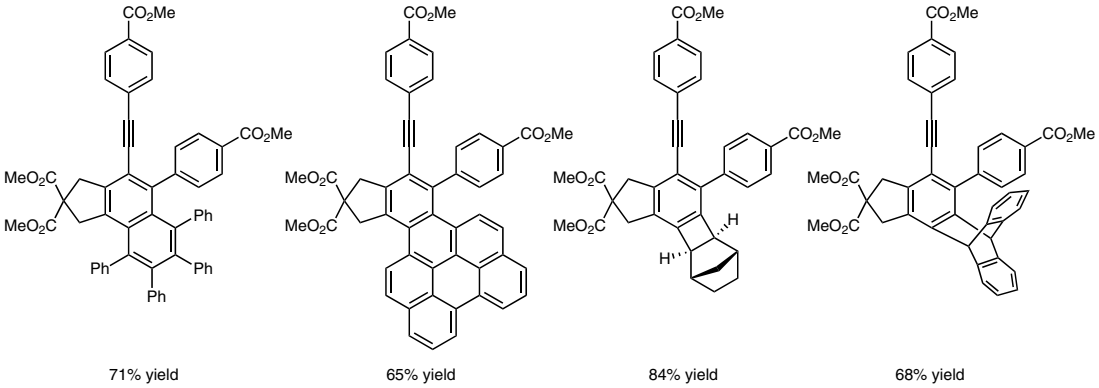
The Power of Light in Hexadehydro-Diels–Alder Chemistry



Selected examples:



Significance: The authors demonstrate the efficient formation of reactive benzyne intermediates through photochemically initiated hexadehydro-Diels–Alder (HDDA) cycloisomerization reaction of multi-yne precursors. The reported photochemical transformation occurs at lower temperatures than the thermal version of the HDDA.

Comment: The authors also report that the resulting benzyne intermediates behave identically to those obtained through thermal HDDA reactions. The subsequent, highly efficient trapping reactions with π-donors and nucleophilic agents demonstrate the application of this method to access more elaborate structures.

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Synthesis of Materials and Unnatural Products

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