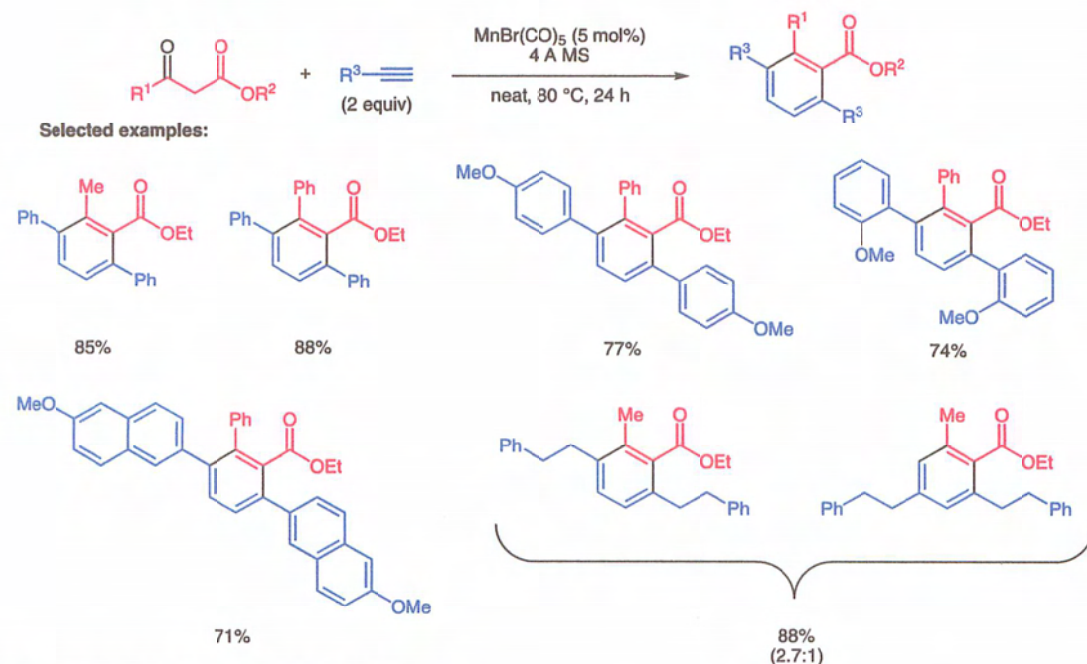
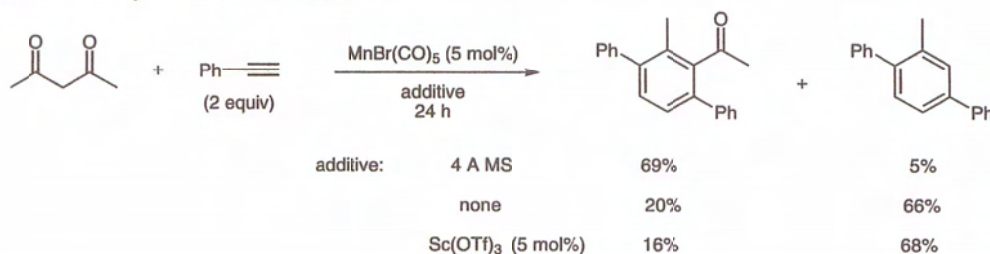


Mn-Catalyzed Benzene Synthesis from 1,3-Dicarbonyls and Acetylenes



Chemoselectivity as a function of additives:



Significance: The treatment of β -keto esters with terminal acetylenes in the presence of catalytic amounts of $\text{MnBr}(\text{CO})_5$ yields polysubstituted aromatics in good to excellent yields. Depending on the additives used, such as $\text{Sc}(\text{OTf})_3$ or molecular sieves, it is possible to selectively synthesize acylated or deacylated benzenes.

Comment: This work is an interesting step towards the synthesis of terphenyls by the [2+2+2] cycloaddition of β -keto esters or 1,2-diketones with two equivalents of terminal acetylenes. Due to the easy substitution of β -keto esters at the γ -position, this method has the potential to become an efficient synthesis of terphenyls. The catalyst is readily available and moderately expensive.