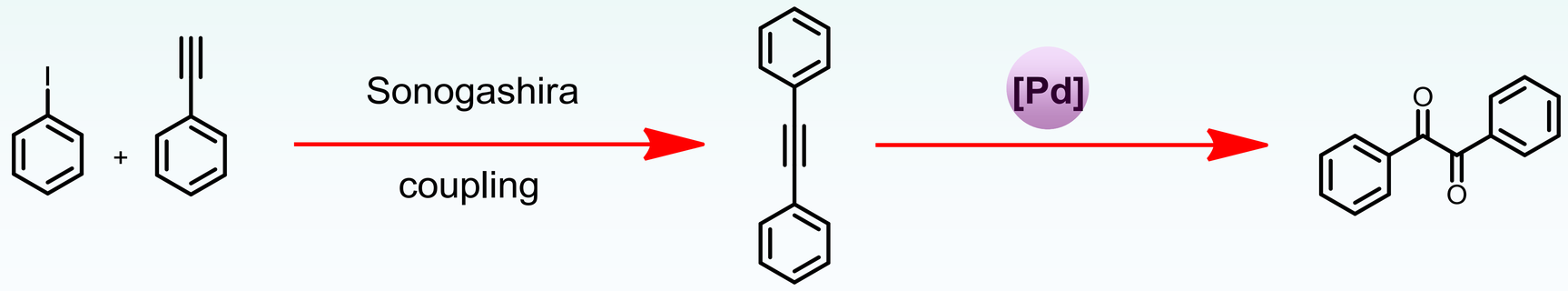
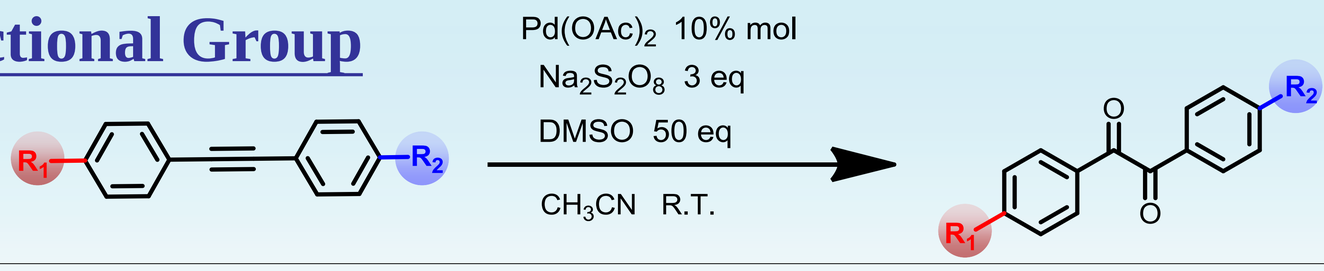
Palladium-Catalyzed the Synthesis of Benzils from Diarylacetylene

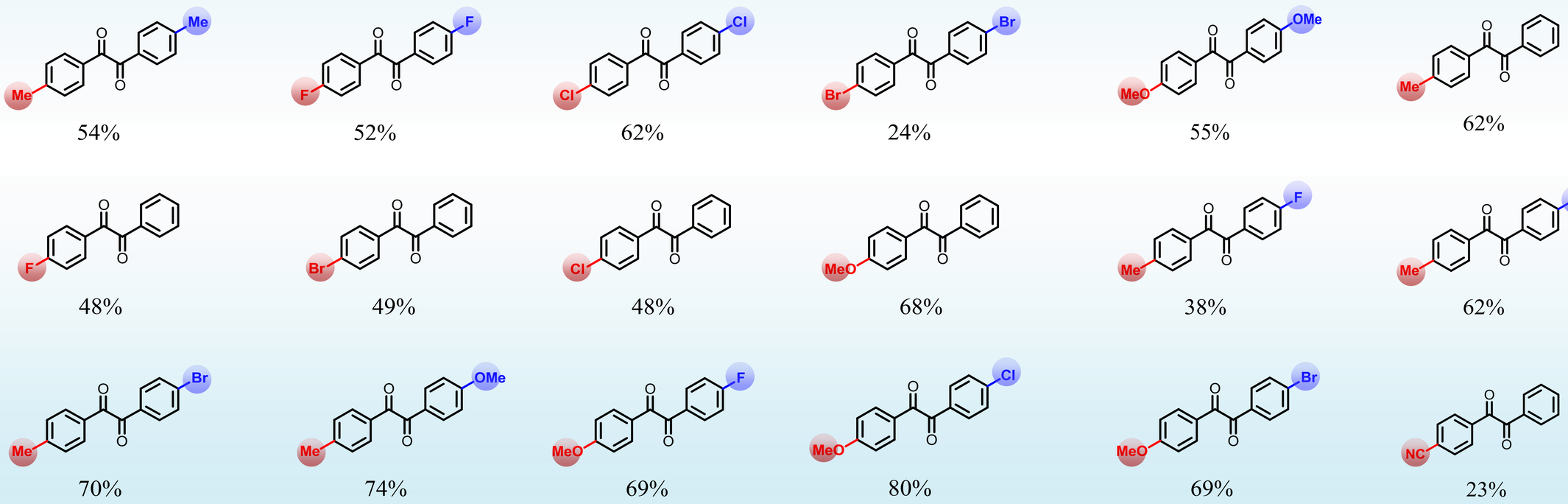
Abstract

以鈀金屬催化劑活化碳-碳鍵的反應在近幾年成為了越來越重要的工作。而Benzil本身可做為良好的抑制劑[1]，且經修飾後更具有抗腫瘤生物活性[2]。此研究首先需要利用Sonogashira偶聯反應製備二苯乙炔起始物[3]，然後透過鈀催化二苯乙炔來合成Benzil骨架。此研究的反應條件溫和且不會有複雜的副產物。而經過實驗也顯示出具有良好的官能基團耐受性。

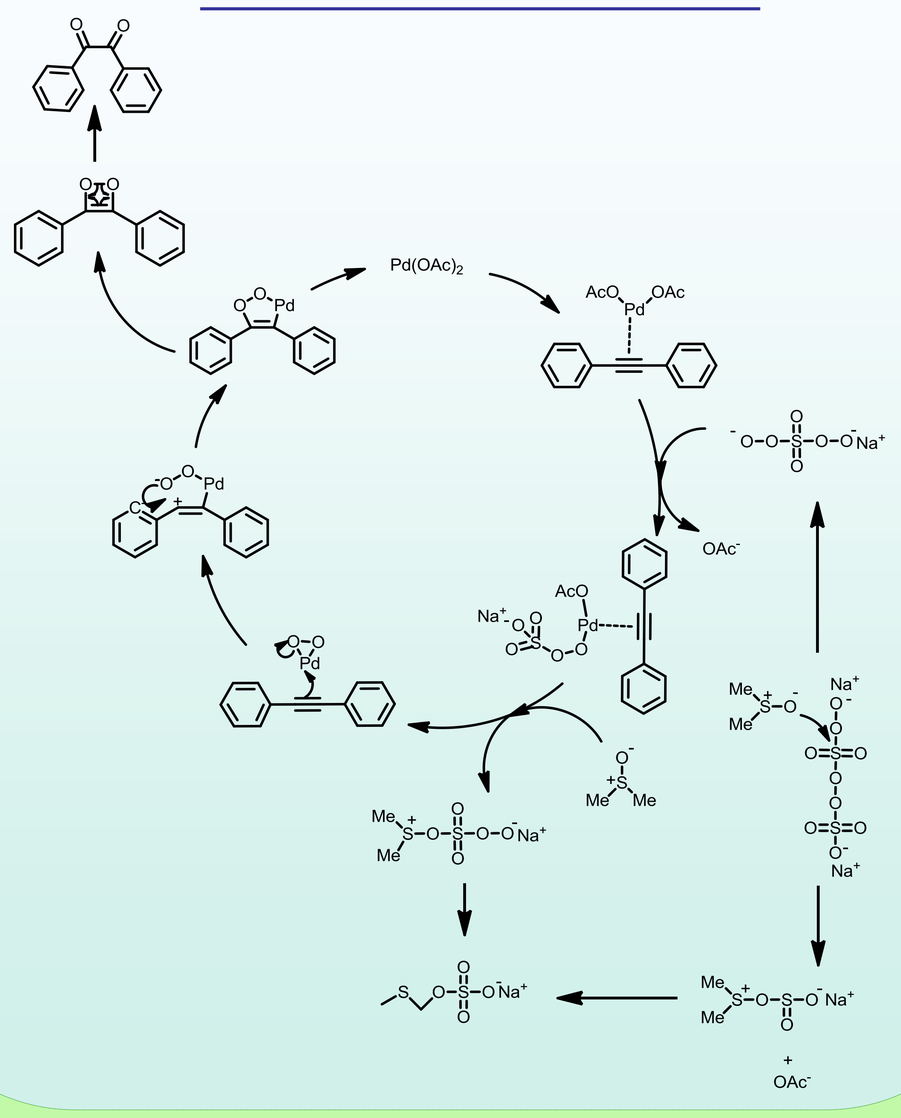


Tolerance of Functional Group

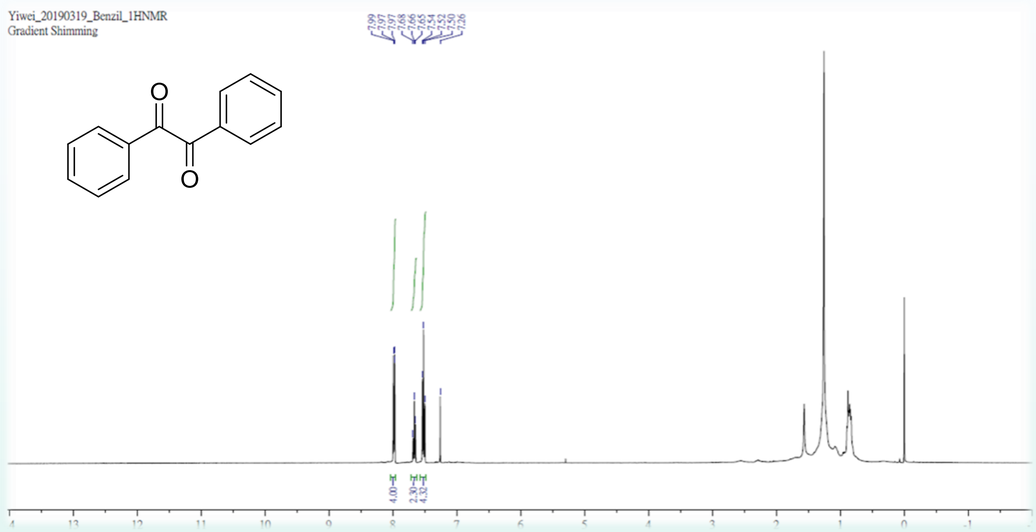




Possible Mechanism



1H NMR, Benzil



References

[1]Celine, M.; Brion, J.-D.; Mouad, A. *Bioorg. Med. Chem. Lett.* **2008**, *18*, 3266-3271.
[2]Randy, M. W. *J. Med. Chem.* **2005**, *48*, 2906-2915.
[3]Kennedy, A.; R. Beilstein *J. Org. Chem.* **2016**, *12*, 2005-2011.