

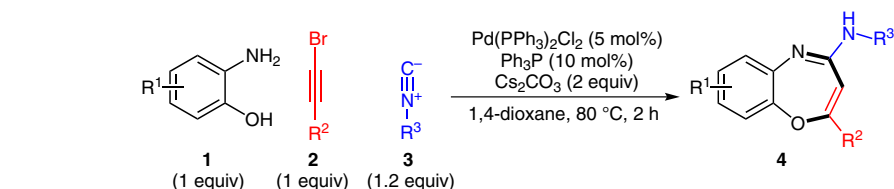
B. LIU, Y. LI, M. YIN, W. WU, H. JIANG* (SOUTH CHINA UNIVERSITY OF TECHNOLOGY, GUANGZHOU, P. R. OF CHINA)

Palladium-Catalyzed Tandem Reaction of *o*-Aminophenols, Bromoalkynes and Isocyanides to Give

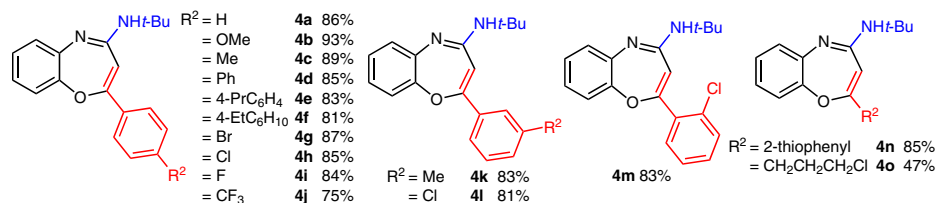
4-Amine-benzo[*b*][1,4]oxazepines

Chem. Commun. **2012**, 48, 11446–11448.

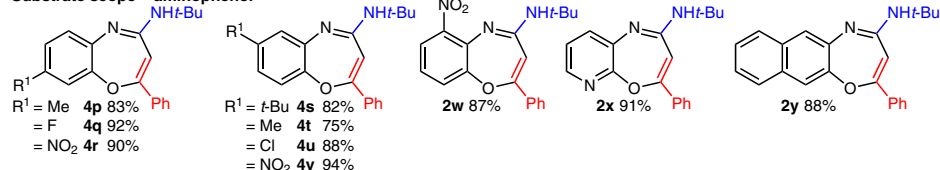
Palladium-Catalyzed Synthesis of Benzo[*b*][1,4]oxazepines



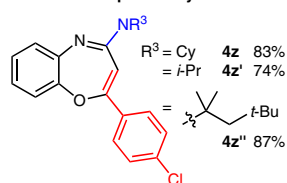
Substrate scope – bromoalkyne



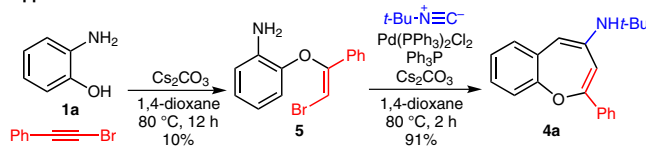
Substrate scope – aminophenol



Substrate scope – isocyanide



Support for mechanism



Significance: Reported is the palladium-catalyzed synthesis of benzo[*b*][1,4]oxazepines **4** via the annulation of *o*-aminophenols **1** with bromoalkynes **2** and isocyanides **3**. Substrate-scope investigation revealed broad tolerance to variation of all components **1–3**, particularly across sterically and electronically differentiated aryl bromoalkynes **2**, with a reduction in yield noted for alkyl bromoalkynes (**4o**). Experiments demonstrating the competency of **5** under the standard reaction conditions are offered in support of the proposed mechanism.

Comment: Building on their previous investigations into combining the nucleophilic addition of isocyanides **3** to bromoalkynes **2** with palladium catalysis (*Chem. Commun.* **2012**, 48, 3545), the current report extends this methodology allowing the synthesis of benzoazepines traditionally synthesized by multiple-step procedures. Taking advantage of the established addition of phenols to bromoalkynes (For furan synthesis, see: S. Wang et al. *Org. Lett.* **2011**, 13, 5968) the current report, intercepting intermediate **5**, appears to have exceptional scope.

SYNFACTS Contributors: Victor Snieckus, Matthew O. Kitching
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