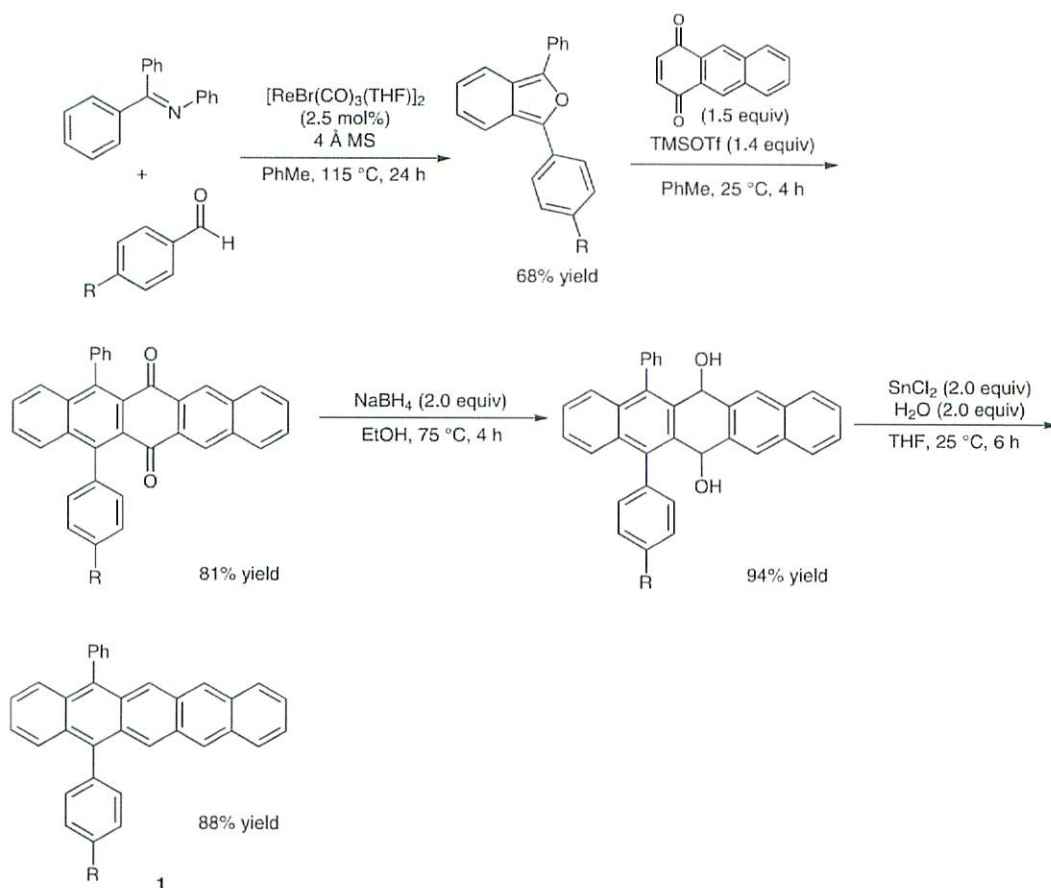


Synthesis of Functionalized Pentacenes from Isobenzofurans



Significance: Pentacene by itself undergoes rapid air oxidation, yet once stabilized by substituent groups, becomes an interesting synthetic target due to high hole mobilities in organic field-effect transistors amongst other things. Although many symmetrically substituted, stable pentacene derivatives have been synthesized, reports of unsymmetrical pentacenes with substituents in the 5-position are still rare. Here, the authors present the synthesis of one such example (**1**).

Comment: The pentacene derivative **1** is able to bear a functional group, such as an alkoxy, trifluoromethyl, methoxycarbonyl, bromo or thiophenyl group at the 5-position of the pentacene skeletons. Not only this, but the final obtained compounds demonstrate good solubility in hexane, toluene, and tetrahydrofuran. Thus, the described transformation has the potential to become a useful method for the synthesis of functionalized pentacene derivatives.