Total Synthesis of Alocasin A, Scalaridine A and Hyrtinadine A and Related Heterocycles via the Double Palladium-catalyzed N-heteroreductive Cyclization

Abstract

Total synthesis of alocasin A has been achieved in six steps from 2-(5-Benzylxyloxy-2-nitrophenyl)-1-trimehtylsilylethyne. Double palladium-catalyzed N-heteroreductive cyclization was utilized as the key reaction that proved to be highly beneficial in the ring closing step. The same strategy is under investigation for the synthesis of a wide variety of biindoles (examples: indolo[3,2-b]- and indolo[2,3-b]-indoles, etc.) that form the basic cores of many synthetically challenging organic compounds including some natural products. The synthetic design has been expected to be fruitful and will find application in the organic laboratories.

References:

Our group chemistry and achievements will be presented exclusively.

Please visit Dr. Soderberg Chemistry for the references.

Thanks!