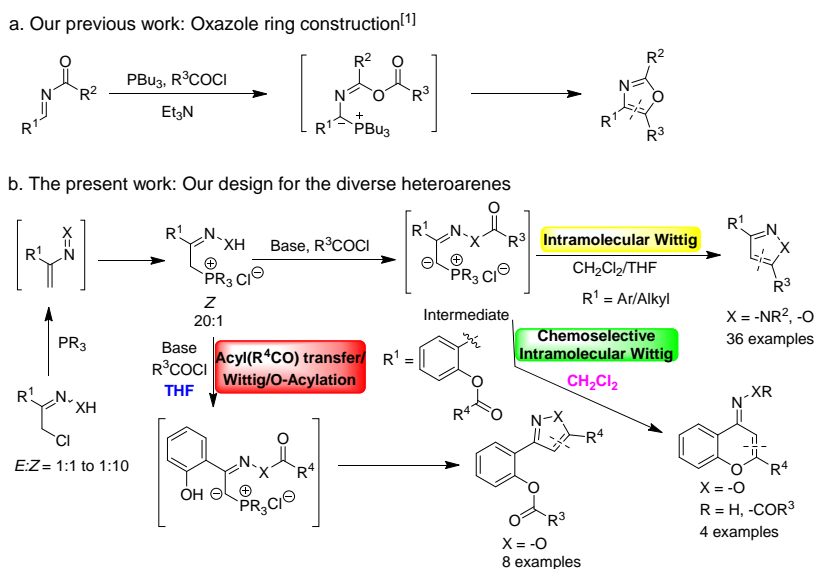


HIGHLY EFFICIENT SYNTHESIS OF TRISUBSTITUTED PYRAZOLES AND DISUBSTITUTED ISOXAZOLES VIA INTRAMOLECULAR WITTIG REACTIONS: A DIVERSITY-ORIENTED SYNTHESIS OF HETEROARENE SCAFFOLDS

Pankaj Khairnar and Wenwei Lin *

Department of Chemistry, National Taiwan Normal University, 88, Sec. 4, Tingchow Road, Taipei 11677, Taiwan, R.O.C.
wenweilin@ntnu.edu.tw

An efficient protocol for the synthesis of trisubstituted pyrazoles and disubstituted isoxazoles is described. The pyrazole and isoxazole derivatives can be achieved by the reaction of corresponding hydrazones or oximes with phosphine and acid chloride in presence of the base via the in situ trapping of azo-alkene/nitroso-alkene intermediates. The methodology was also capable to provide the diverse heteroaromatics via intramolecular Wittig reaction in diversity-oriented manner that preferentially allows the formation of isoxazole and chromenone-oxime derivatives by altering the reaction conditions.



Pyrazoles and isoxazoles have been extensively studied in the last few decades as a prominent class of heterocycles due to their diverse and potent biological properties,^[2] and they also exhibit a wide range of agricultural and pharmaceutical activities.^[3]

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