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(54) Title: ENZYMES AND USES IN BIOCATALYTIC HALOGENATION OF N-HETEROARYLS THEREOF

C. Representative Synthetic Protocol vs This work for Site-selective Halogenation of Pyrroles

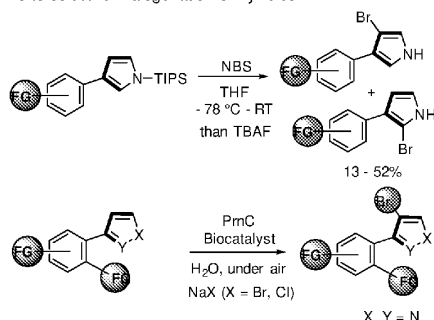


Figure 2C

(57) Abstract: The present disclosure concerns enzymes and their uses in biocatalytic halogenation of pyrrolic heterocycles thereof. The method of halogenating a 2', 3' and/or 5' substituted N-heteroaryl or a derivative thereof comprises contacting the N-heteroaryl or derivative thereof with a halogen and a flavin-dependent halogenase under co-enzyme regeneration conditions in order for the halogen to be substituted at a 4' position on the N-heteroaryl or derivative thereof.