

PyBroP/base-promoted one-pot three-component sequential decarboxylative addition reaction of β -keto acids, isatylidene malononitriles and pyridine *N*-oxides

Fuzhong Han,^{*, a, b} Yingdong Na,^a Lina Jia,^{a, b} and Xiangping Hu^{*, c}

^a*College of Chemistry and Chemical Engineering, Qiqihar University, Qiqihar 161006, China.*

^b*Heilongjiang Provincial Key Laboratory of Catalytic Synthesis for Fine Chemicals, Qiqihar 161006, China*

^c*Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China.*

E-mail: hanfuzhongchn@163.com

Supporting Information

NMR Spectra

























































