

Supplementary Material

Mechanistic studies on the metal-free decarboxylative coupling reaction for synthesis of propargylamines by NMR

Yongjun Lee,^{a,b} Kyungho Park,^a Han-Sung Kim,^a Jimin Kim,^a Young Ju Lee,^b Ki Deok Park,^{*b} Jonghoon Oh,^{*a} and Sunwoo Lee^{*a}

^a Department of Chemistry, Chonnam National University, Gwangju, 61186, Republic of Korea

^b Gwangju Center, Korea Basic Science Institute, Gwangju 61186, Republic of Korea

E-mail: kdpark@kbsi.re.kr, jhoh@chonnam.ac.kr, sunwoo@chonnam.ac.kr

Table of Contents

1. NMR analysis of morpholinomethanol (HA) and dimorpholinomethane (BA)	S2
2. NMR analysis of Reaction mixtures of HA , BA , PPA , and PA	S4
3. ¹ H NMR data of the reaction mixture with PPA , paraformaldehyde and morpholine in CD ₃ CN	S6

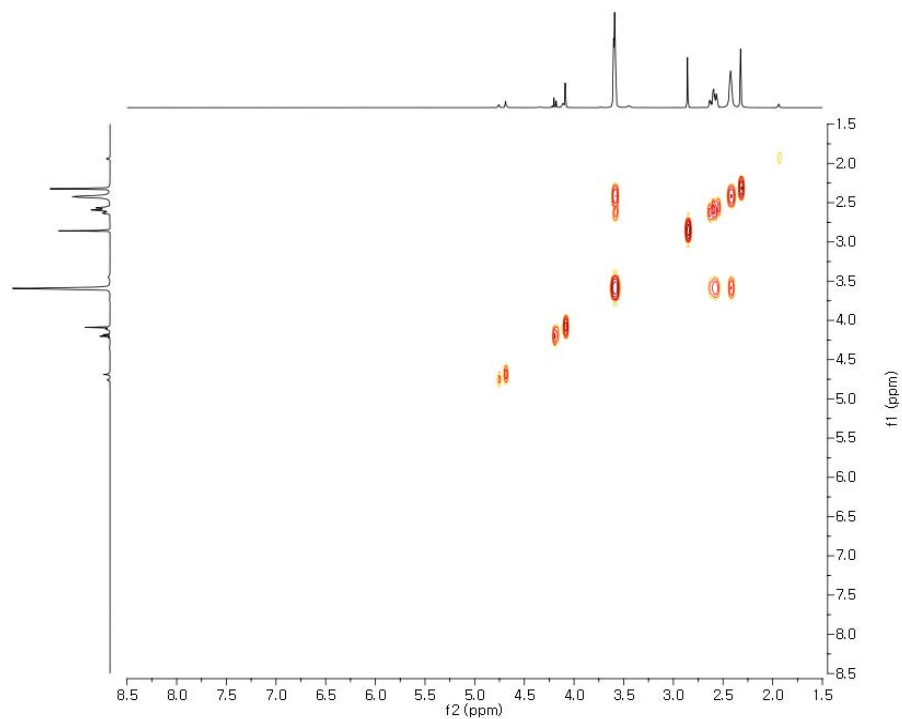


Figure S1-1. ^1H - ^1H COSY of morpholinomethanol (**HA**) and dimorpholinomethane (**BA**)

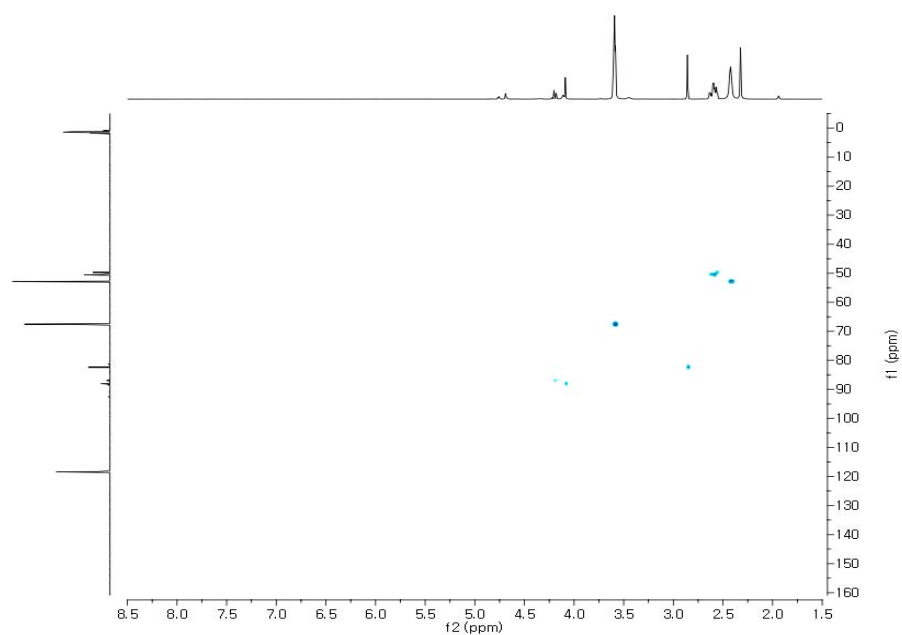


Figure S1-2. ^1H - ^{13}C HSQC of morpholinomethanol (**HA**) and dimorpholinomethane (**BA**)

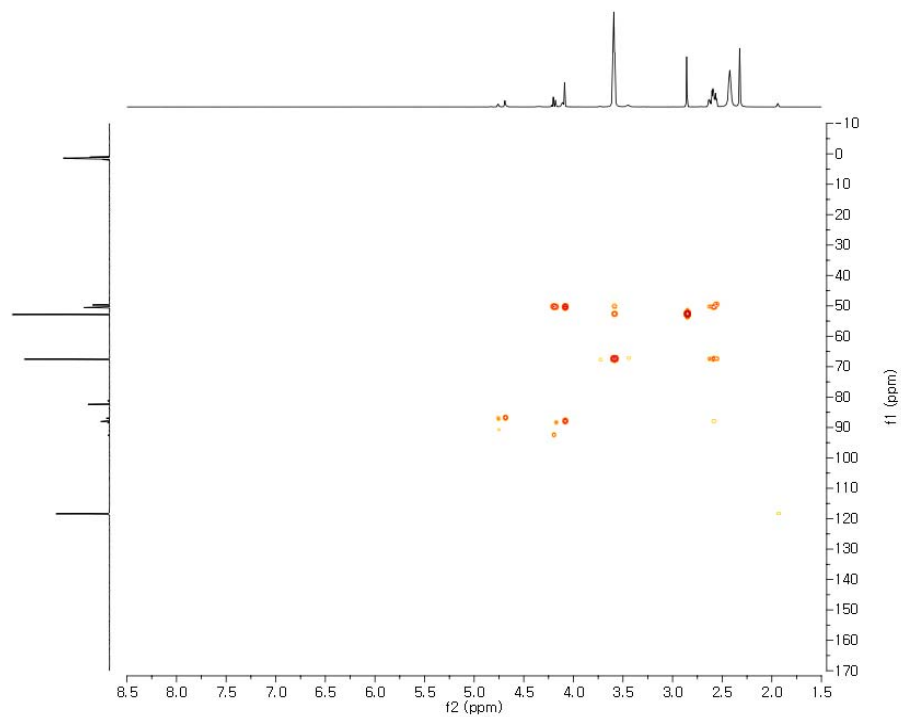


Figure S1-3. ^1H - ^{13}C HMBC of morpholinomethanol (**HA**) and dimorpholinomethane (**BA**)

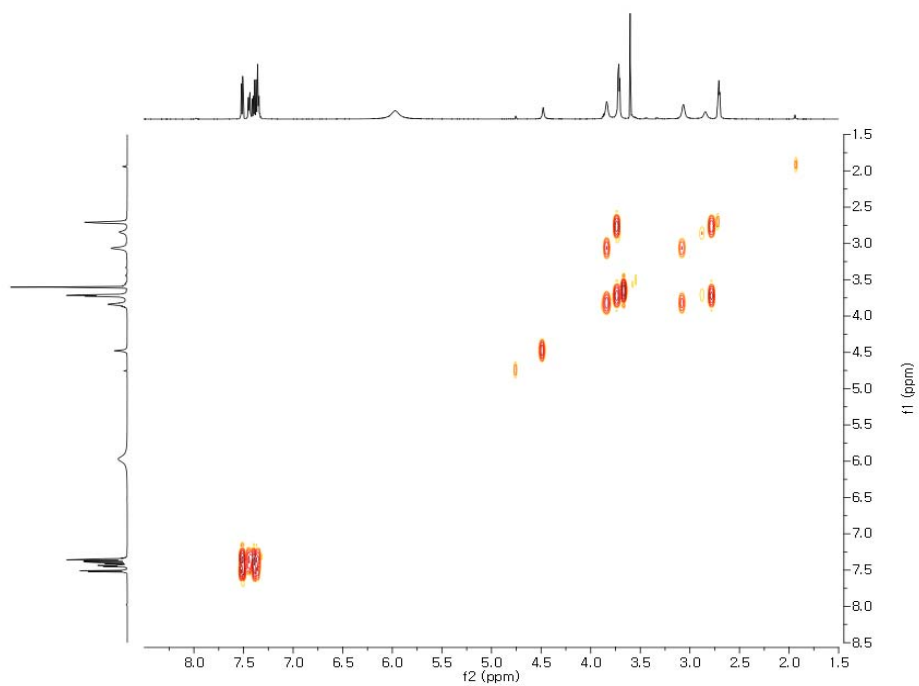


Figure S2-1. ^1H - ^1H COSY of Reaction mixtures of **HA**, **BA**, **PPA**, and **PA**.

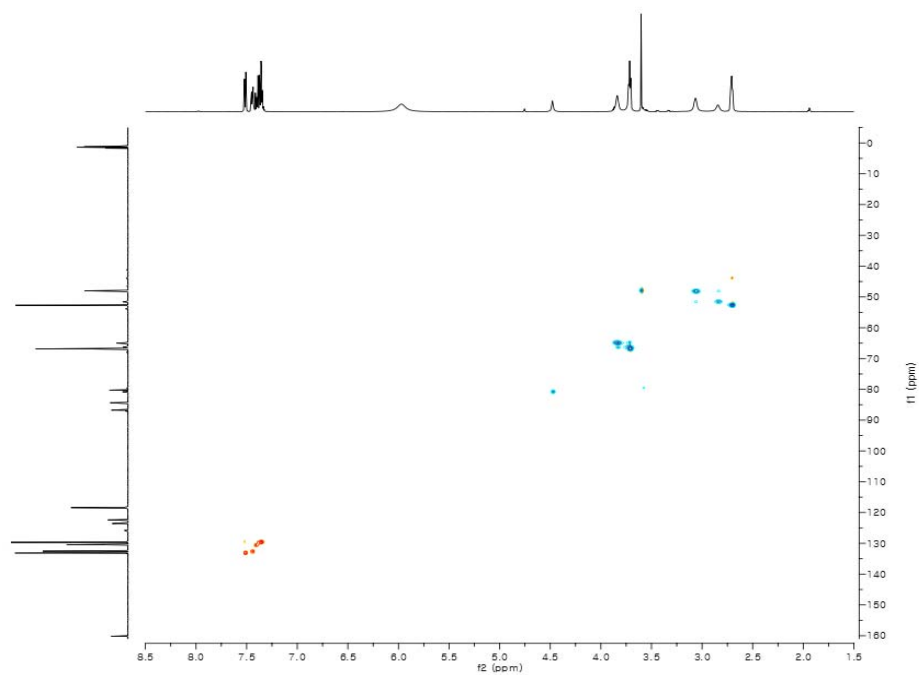


Figure S2-2. ^1H - ^{13}C HSQC of Reaction mixtures of **HA**, **BA**, **PPA**, and **PA**.

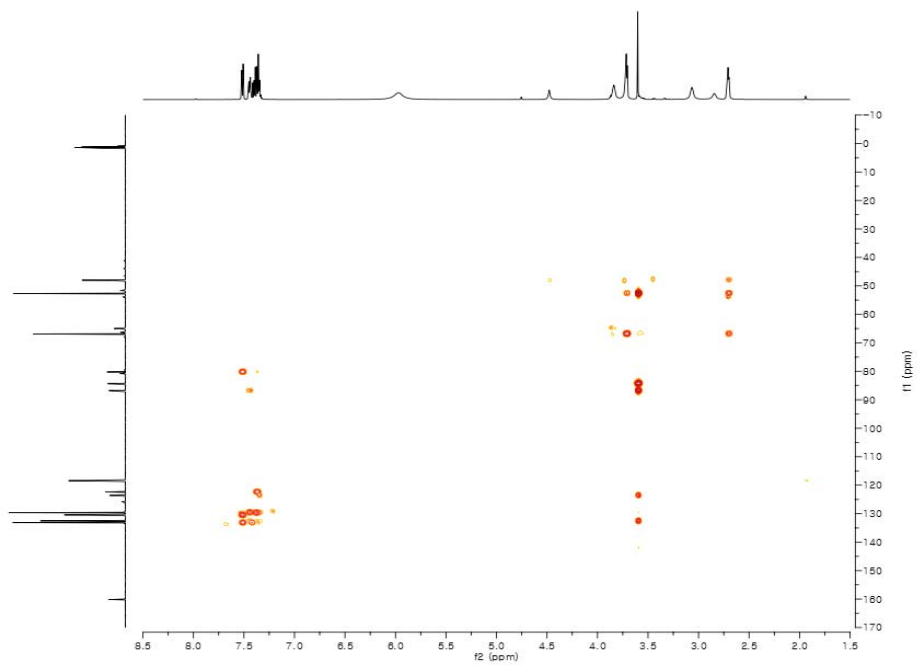


Figure S2-3. ^1H - ^{13}C HMBC of Reaction mixtures of **HA**, **BA**, **PPA**, and **PA**.

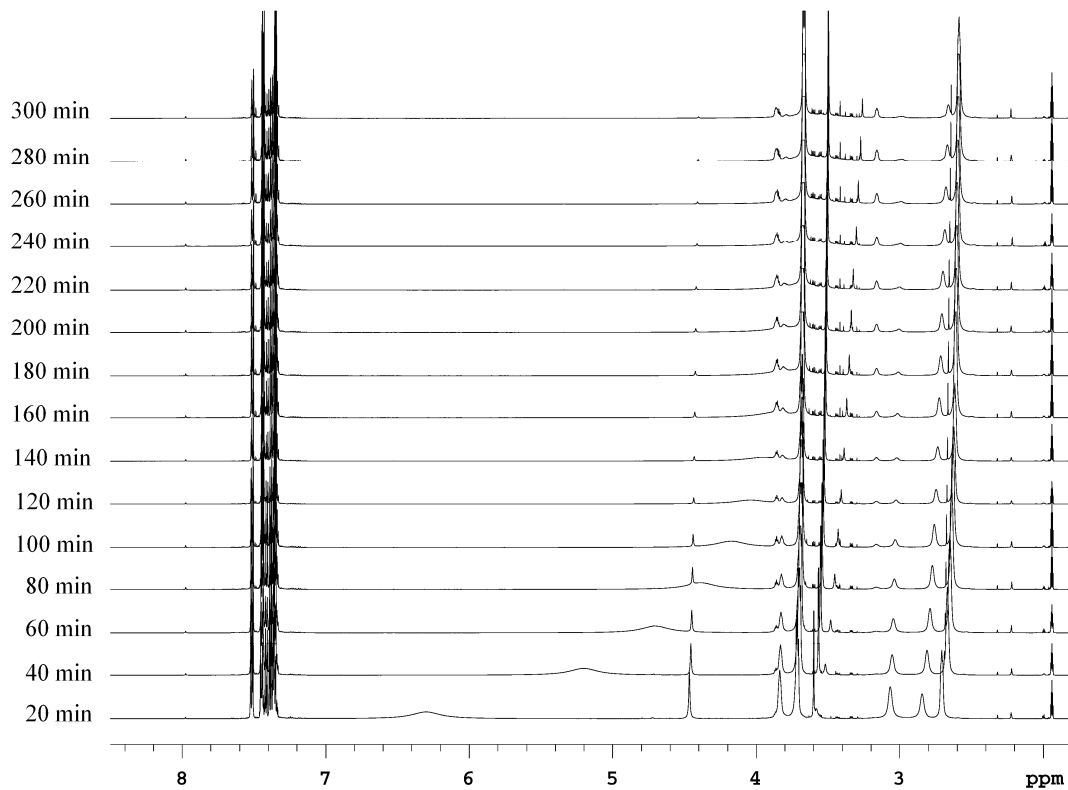


Figure S3. ¹H NMR data of the reaction mixture with **PPA**, paraformaldehyde and morpholine in CD₃CN.