Electronic Supplementary Material (ESI) for Organic Chemistry Frontiers. This journal is © the Partner Organisations 2015

Electronic Supplementary Information

Direct Transformation of Amides: One-pot Reductive Ugi-Type Threecomponent Reaction of Secondary Amides

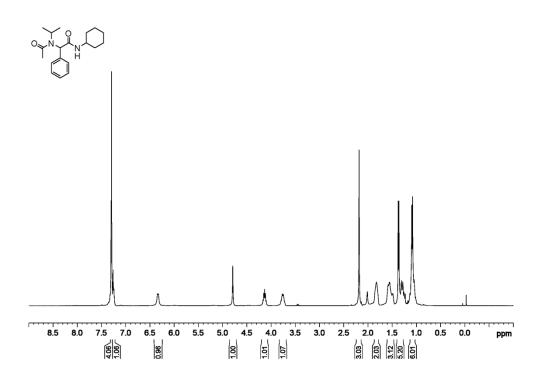
Department of Chemistry, Fujian Provincial Key Laboratory for Chemical Biology, iChEM (Collaborative Innovation Centre of Chemistry for Energy Materials), College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, Fujian 361005, P. R. China

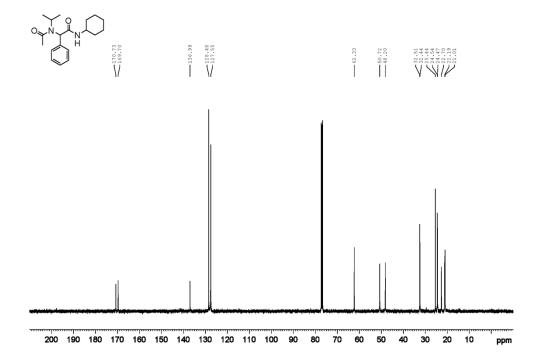
e-mail: pqhuang@xmu.edu.cn; zjf485@xmu.edu.cn

Contents (19 pages):

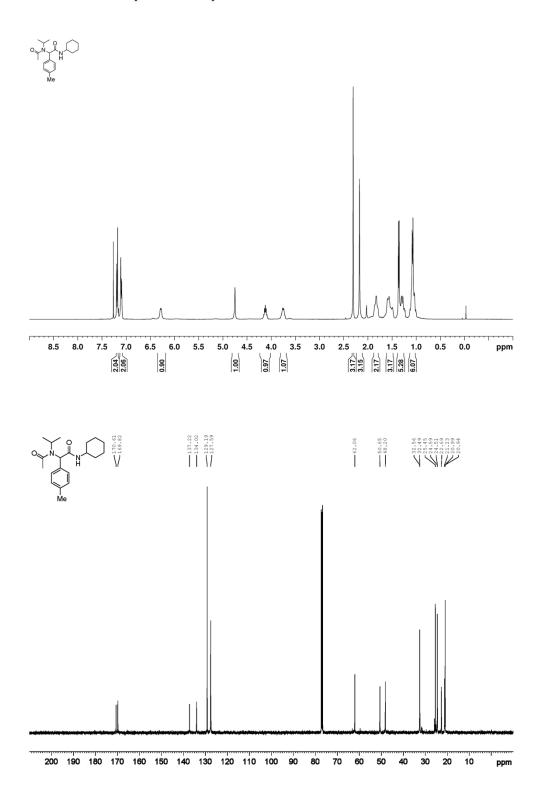
• ¹H NMR and ¹³C NMR spectra of the products **2a–2s**

S2- S20

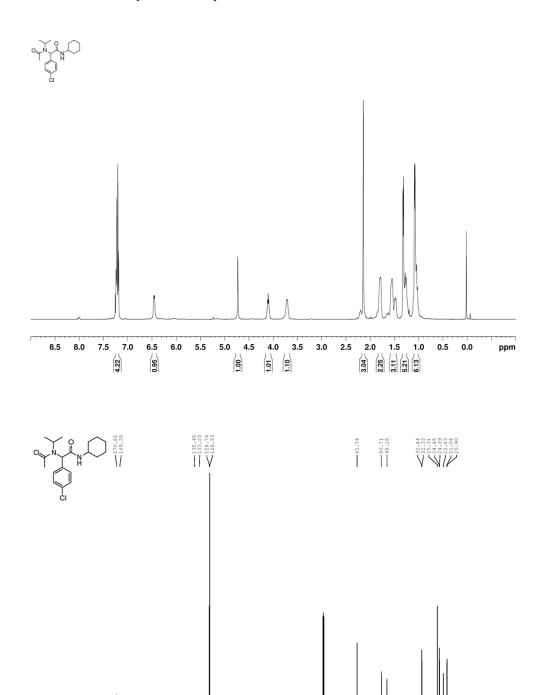




¹H NMR and ¹³C NMR spectra of compound **2b**

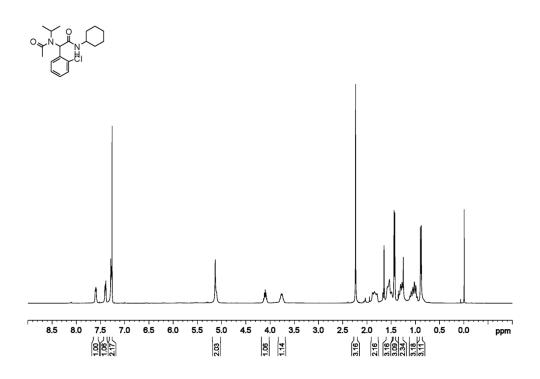


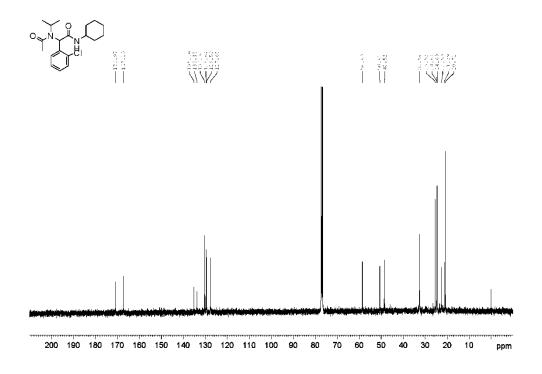
¹H NMR and ¹³C NMR spectra of compound **2c**



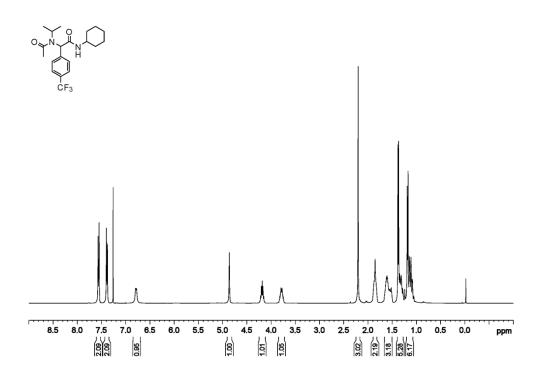
200 190 180 170 160 150 140 130 120 110 100 90 80 70 60

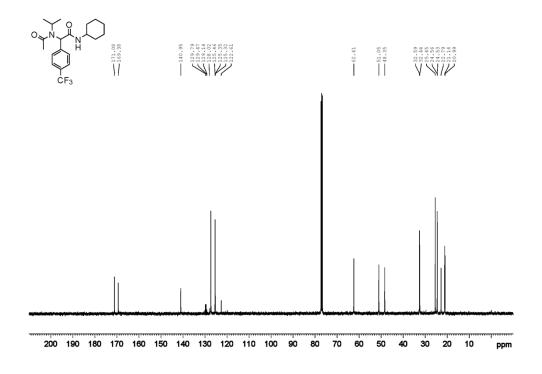
¹H NMR and ¹³C NMR spectra of compound **2d**



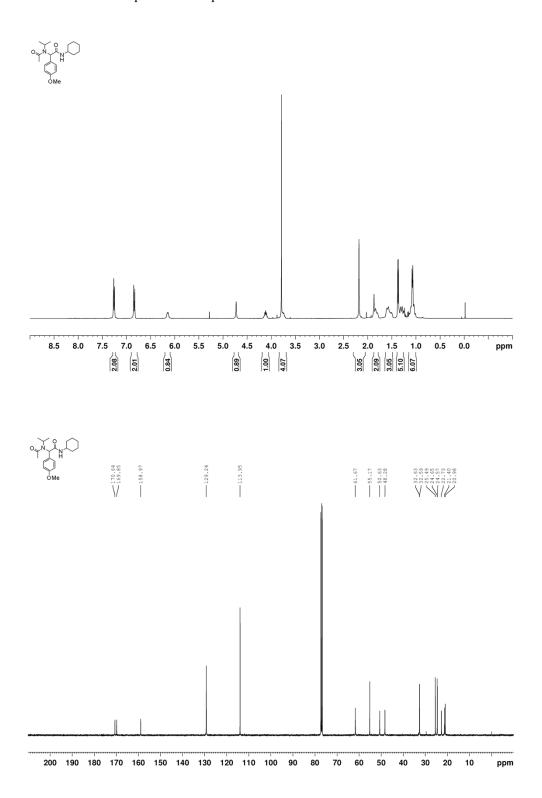


¹H NMR and ¹³C NMR spectra of compound **2e**

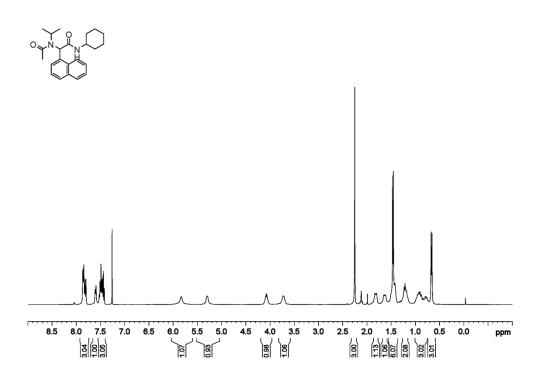


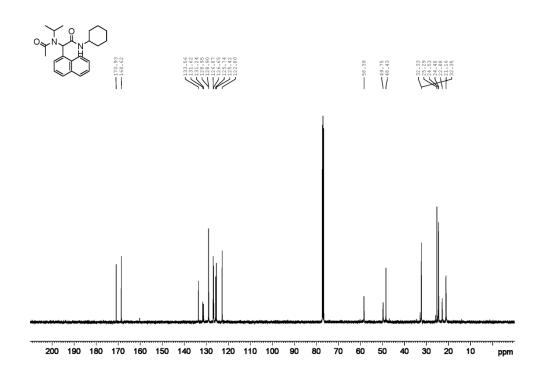


¹H NMR and ¹³C NMR spectra of compound **2f**

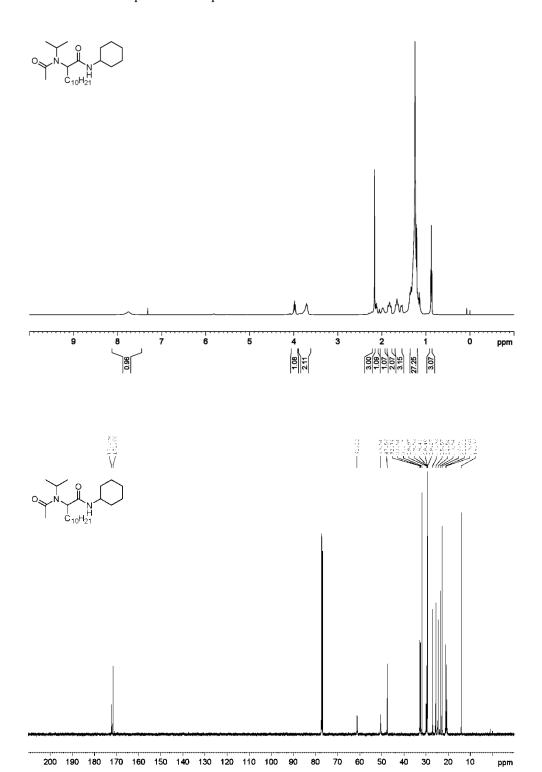


¹H NMR and ¹³C NMR spectra of compound **2g**

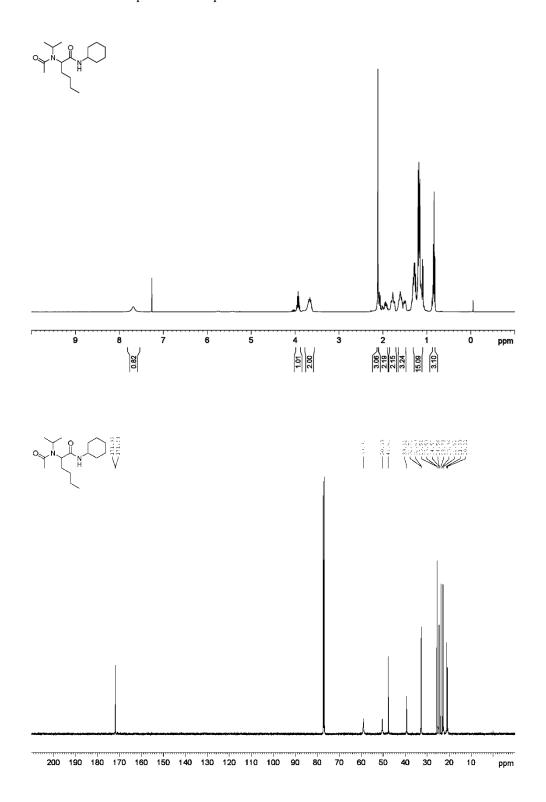




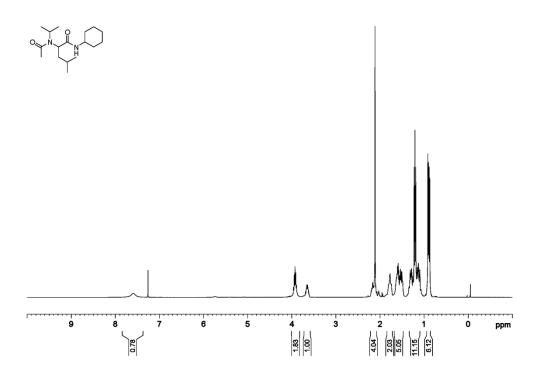
$^1 H$ NMR and $^{13} C$ NMR spectra of compound ${\bf 2h}$

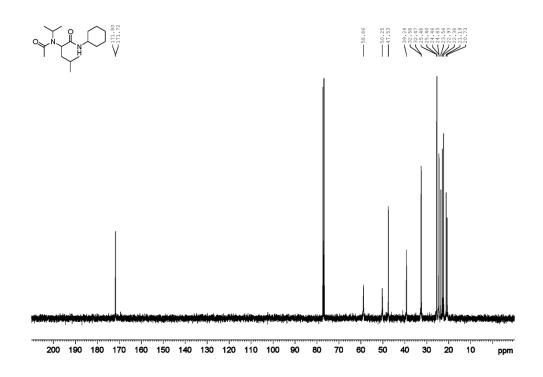


$^1\mbox{H}$ NMR and $^{13}\mbox{C}$ NMR spectra of compound 2i

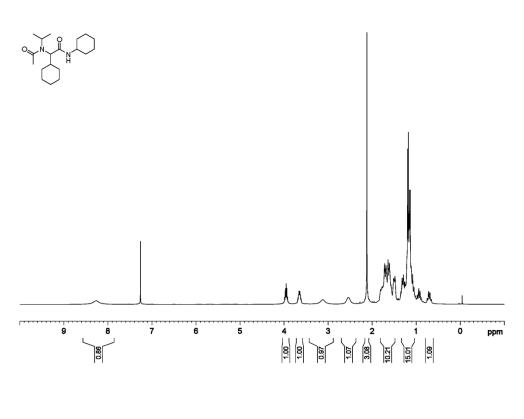


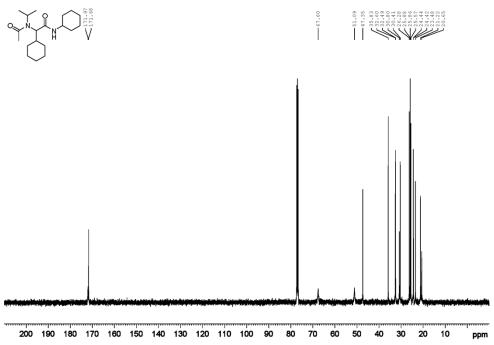
 ^{1}H NMR and ^{13}C NMR spectra of compound 2j



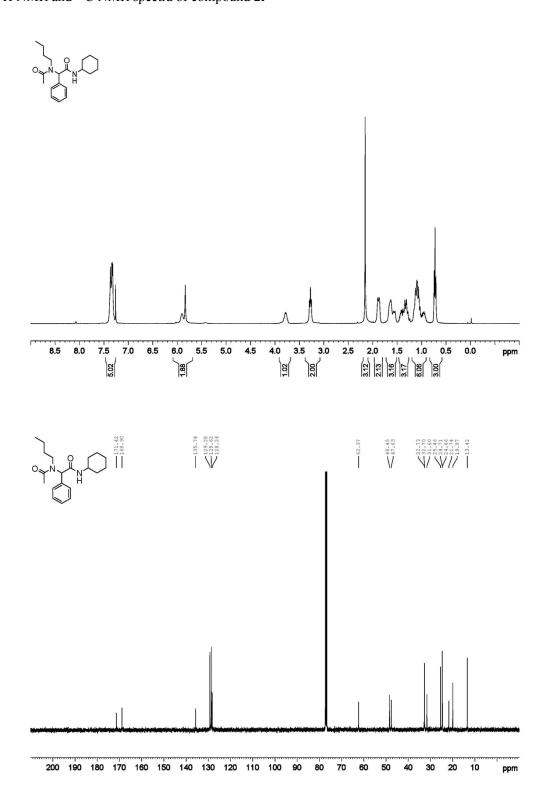


 $^{1}\mbox{H}$ NMR and $^{13}\mbox{C}$ NMR spectra of compound 2k

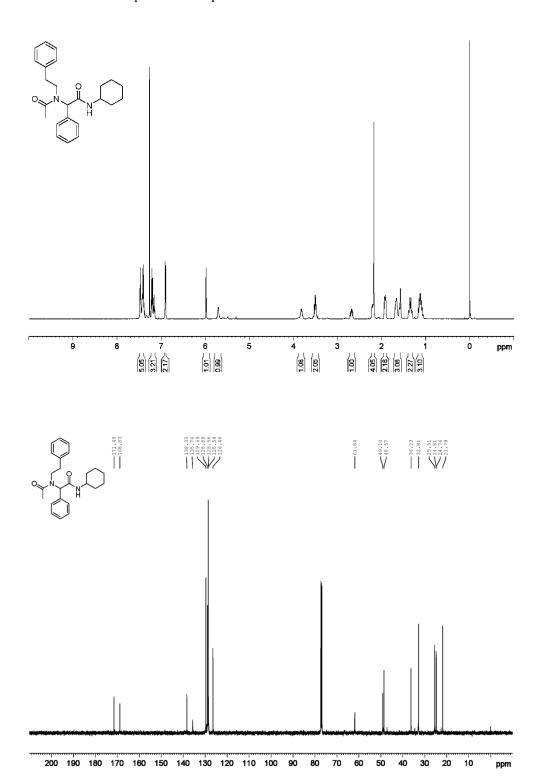




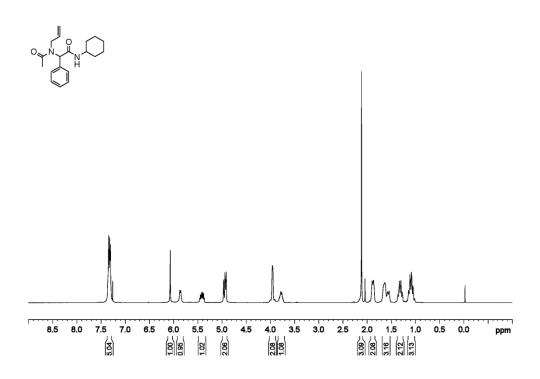
¹H NMR and ¹³C NMR spectra of compound **21**

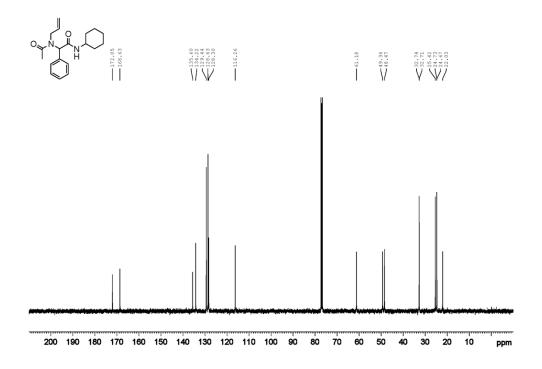


$^1 H$ NMR and $^{13} C$ NMR spectra of compound ${\bf 2m}$



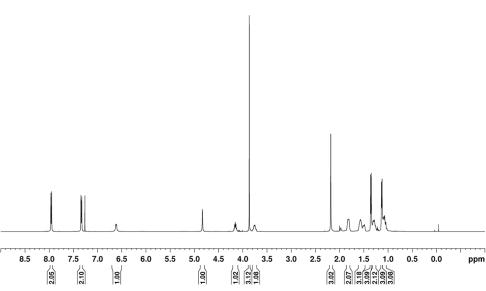
¹H NMR and ¹³C NMR spectra of compound **2n**

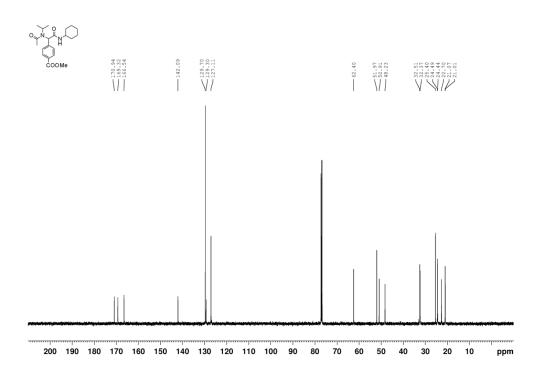




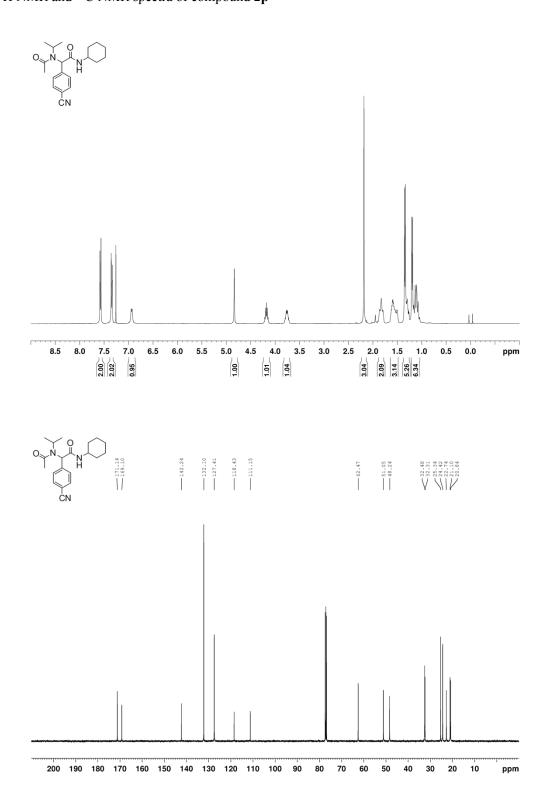
¹H NMR and ¹³C NMR spectra of compound **20**



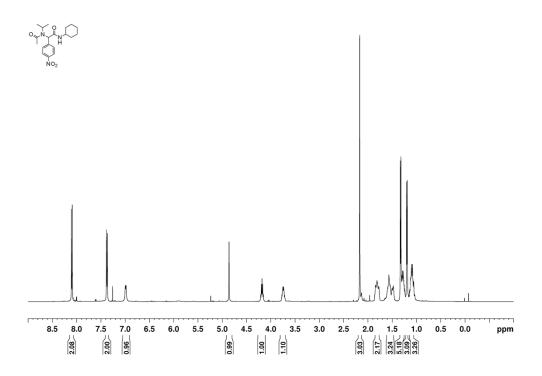


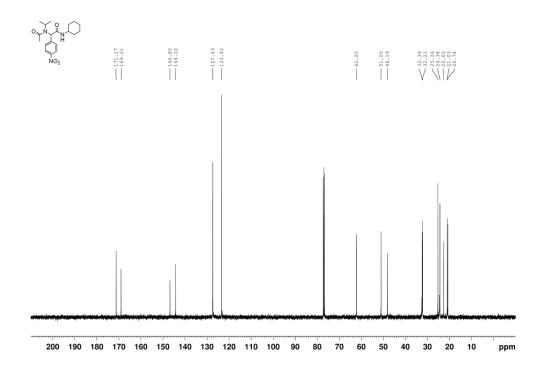


¹H NMR and ¹³C NMR spectra of compound **2p**

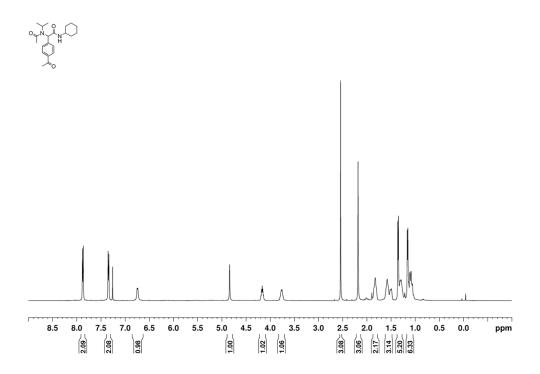


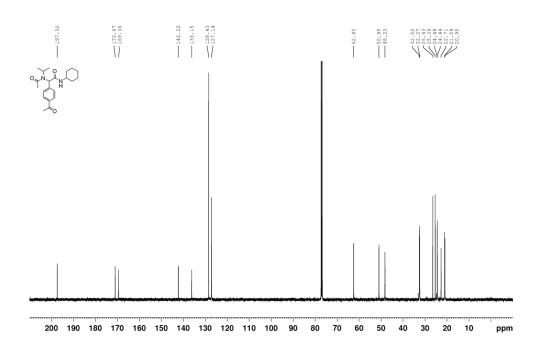
¹H NMR and ¹³C NMR spectra of compound **2q**





¹H NMR and ¹³C NMR spectra of compound **2r**





¹H NMR and ¹³C NMR spectra of compound **2s**

