Synthesis of Alkynamides through Reaction of Alkyl- or Aryl-Substituted Alkynylaluminums with Isocyanates

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Supplementary Information

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1. Copies of ¹H, ¹³C, and ¹⁹F NMR spectra for all products



¹H NMR spectrum of the compound **4aa**



¹³C NMR spectrum of the compound **4aa**



¹H NMR spectrum of the compound **5aa**



¹³C NMR spectrum of the compound **5aa**



¹H NMR spectrum of the compound **4ab**



¹³C NMR spectrum of the compound **4ab**



¹H NMR spectrum of the compound **4ac**



¹³C NMR spectrum of the compound **4ac**



 $^1\mathrm{H}$ NMR spectrum of the compound **4ad**



¹³C NMR spectrum of the compound **4ad**



¹H NMR spectrum of the compound **4ae**



¹³C NMR spectrum of the compound **4ae**



¹H NMR spectrum of the compound **4af**



¹³C NMR spectrum of the compound **4af**



¹H NMR spectrum of the compound **4ag**



¹³C NMR spectrum of the compound **4ag**



¹H NMR spectrum of the compound **4ah**



¹³C NMR spectrum of the compound **4ah**



¹H NMR spectrum of the compound **4ai**



¹³C NMR spectrum of the compound **4ai**



¹H NMR spectrum of the compound **4aj**



¹³C NMR spectrum of the compound **4aj**



¹H NMR spectrum of the compound **4ak**



¹³C NMR spectrum of the compound **4ak**



¹H NMR spectrum of the compound **4al**



¹³C NMR spectrum of the compound **4al**



¹H NMR spectrum of the compound **4am** (a 9:1 mixture of rotamers)



¹³C NMR spectrum of the compound **4am** (a 9:1 mixture of rotamers)



¹H NMR spectrum of the compound **4an** (a 4:1 mixture of rotamers)



¹³C NMR spectrum of the compound **4an** (a 4:1 mixture of rotamers)



¹H NMR spectrum of the compound **4ao** (a 5:1 mixture of rotamers)



¹³C NMR spectrum of the compound **4ao**



¹H NMR spectrum of the compound **4ap** (a 9:1 mixture of rotamers)



¹³C NMR spectrum of the compound **4ap**



¹H NMR spectrum of the compound **4aq** (a 9:1 mixture of rotamers)



¹³C NMR spectrum of the compound **4aq**



¹H NMR spectrum of the compound **4ar** (a 9:1 mixture of rotamers)



¹³C NMR spectrum of the compound **4ar**



¹H NMR spectrum of the compound **4as**



¹³C NMR spectrum of the compound **4as**



¹H NMR spectrum of the compound **4at**



¹³C NMR spectrum of the compound **4at**



¹H NMR spectrum of the compound **4ba**



¹³C NMR spectr1um of the compound **4ba**



 $^1\mathrm{H}$ NMR spectrum of the compound 4ca



¹³C NMR spectrum of the compound **4ca**



¹H NMR spectrum of the compound **4da**



¹³C NMR spectrum of the compound **4da**



¹H NMR spectrum of the compound **4ea**



¹³C NMR spectrum of the compound **4ea**



¹⁹F NMR spectrum of the compound **4ea**



¹H NMR spectrum of the compound **4fa**



¹³C NMR spectrum of the compound **4fa**



 $^1\mathrm{H}$ NMR spectrum of the compound 4ga



¹³C NMR spectrum of the compound **4ga**



¹H NMR spectrum of the compound **4ka**



¹³C NMR spectrum of the compound **4ka**



¹H NMR spectrum of the compound **4la**



¹³C NMR spectrum of the compound **4la**



¹⁹F NMR spectrum of the compound **4la**



¹H NMR spectrum of the compound **4ma**



¹³C NMR spectrum of the compound **4ma**



¹H NMR spectrum of the compound **4na**



¹³C NMR spectrum of the compound **4na**



¹H NMR spectrum of the compound **40a**



¹³C NMR spectrum of the compound **40a**



¹H NMR spectrum of the compound **4pa**



¹³C NMR spectrum of the compound **4pa**



¹H NMR spectrum of the compound 4qa



¹³C NMR spectrum of the compound **4qa**



¹H NMR spectrum of the compound **4ra**



¹³C NMR spectrum of the compound **4ra**



¹H NMR spectrum of the compound **4sa**



¹³C NMR spectrum of the compound **4sa**



¹H NMR spectrum of the compound **4ta**



¹³C NMR spectrum of the compound **4ta**



 $^1\mathrm{H}$ NMR spectrum of the compound 4ua



¹³C NMR spectrum of the compound **4ua**



¹H NMR spectrum of the compound 7a



¹³C NMR spectrum of the compound **7a**



¹H NMR spectrum of the compound **7b**



¹³C NMR spectrum of the compound **7b**



¹H NMR spectrum of the compound 7c



¹³C NMR spectrum of the compound **7c**



¹H NMR spectrum of the compound **7d**



¹³C NMR spectrum of the compound **7d**



¹H NMR spectrum of the compound 7e (a 2:1 mixture of 7e and 7ea)



¹³C NMR spectrum of the compound 7e (a 2:1 mixture of 7e and 7ea)



¹H NMR spectrum of the compound **7f**



¹³C NMR spectrum of the compound **7f**



¹H NMR spectrum of the compound 7g



 13 C NMR spectrum of the compound **7g**



¹H NMR spectrum of the compound **7h**



¹³C NMR spectrum of the compound **7h**



¹H NMR spectrum of the compound **7i**



¹³C NMR spectrum of the compound **7i**



 1 H NMR spectrum of the compound 7j



¹³C NMR spectrum of the compound **7**j



 ^{1}H NMR spectrum of the compound **7k**



¹³C NMR spectrum of the compound **7**k



¹H NMR spectrum of the compound 9a



¹³C NMR spectrum of the compound **9a**



¹H NMR spectrum of the compound **9b**



¹³C NMR spectrum of the compound **9b**



¹⁹F NMR spectrum of the compound **9b**



¹H NMR spectrum of the compound **9**c



¹³C NMR spectrum of the compound **9c**