Supporting Information

Somophilic Isocyanide Insertion: Synthesis of 6-Arylated and 6-Trifluoromethylated Phenanthridines

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1. $^1$H NMR and $^{13}$C NMR Spectra for All Compounds.................................S2
$^1$H NMR and $^{13}$C NMR of 3a

![NMR spectra of compound 3a](image)
\(^1\)H NMR and \(^{13}\)C NMR of 3b
$^1\text{H NMR and } ^{13}\text{C NMR of 3c}$
$^1$H NMR and $^{13}$C NMR of 3d
$^1$H NMR and $^{13}$C NMR of 3e
$^1$H NMR and $^{13}$C NMR of 3f
$^1$H NMR and $^{13}$C NMR of 3g
$^1$H NMR and $^{13}$C NMR of 3h
$^{1}H$ NMR and $^{13}C$ NMR of 3i
$^1$H NMR and $^{13}$C NMR of 3j
$^1$H NMR and $^{13}$C NMR of 3k

3k

S12
$^1$H NMR and $^{13}$C NMR of 3I
$^1\text{H NMR and } ^{13}\text{C NMR of 3l'}$
$^1$H NMR and $^{13}$C NMR of 3m
$^1$H NMR and $^{13}$C NMR of 3n
$^1$H NMR and $^{13}$C NMR of 3o
$^1$H NMR and $^{13}$C NMR of 3p
$^1$H NMR and $^{13}$C NMR of 3q
$^1$H NMR and $^{13}$C NMR of 3r
$^1$H NMR and $^{13}$C NMR of 3s
$^1$H NMR and $^{13}$C NMR of 3t
$^1$H NMR and $^{13}$C NMR of 3u
$^1$H NMR and $^{13}$C NMR of 3v

![NMR spectra of 3v](image)
$^1$H NMR and $^{13}$C NMR of 3w
$^1$H NMR and $^{13}$C NMR of 5h
$^1$H NMR and $^{13}$C NMR of 5i
$^{1}H$ NMR and $^{13}C$ NMR of 5j

\[ \text{Chemical Structures} \]

\[ \text{NMR Spectra} \]
$^1$H NMR and $^{13}$C NMR of 5k
$^1$H NMR and $^{13}$C NMR of 5I
\[ ^{1}H \text{ NMR of 5m} \]

\[ ^{1}H \text{ NMR of 5n} \]
$^1$H NMR of 5o

![NMR spectrum of 5o](image)

$^1$H NMR of 5p

![NMR spectrum of 5p](image)
$^1$H NMR of 5q
$^1$H NMR and $^{13}$C NMR of 5r
$^1$H NMR of 5s
$^1$H NMR and $^{13}$C NMR of 5t and 5t'

5t and 5t' = 2.6 : 1
$^1$H NMR and $^{13}$C NMR of 5u and 5u'

5u and 5u' = 19.0 : 1

5u and 5u' = 15.0 : 1