Intramolecular carbene C-H insertion reactions of 2-diazo-2-sulfamoylacetamides

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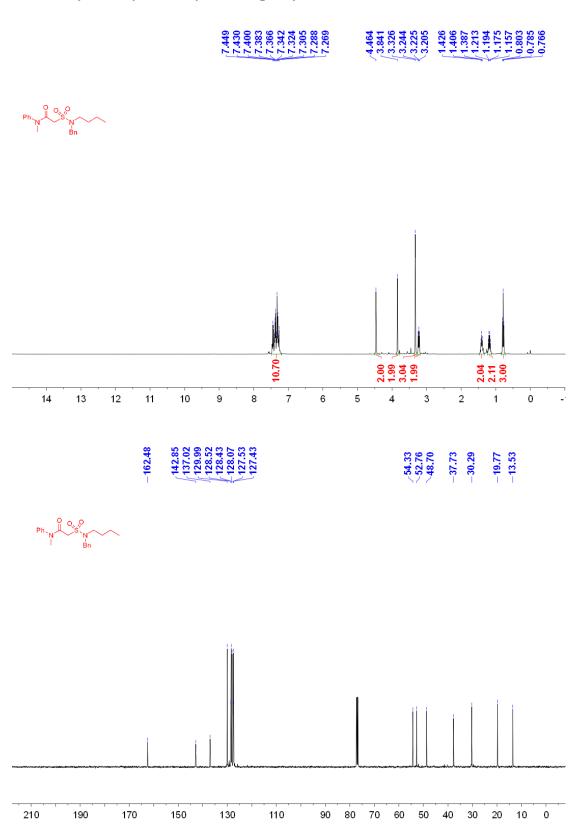
State Key Laboratory of Chemical Resource Engineering, Department of Organic Chemistry, College of Chemistry, BeijingUniversity of Chemical Technology, Beijing 100029, P. R. China

Supporting Information

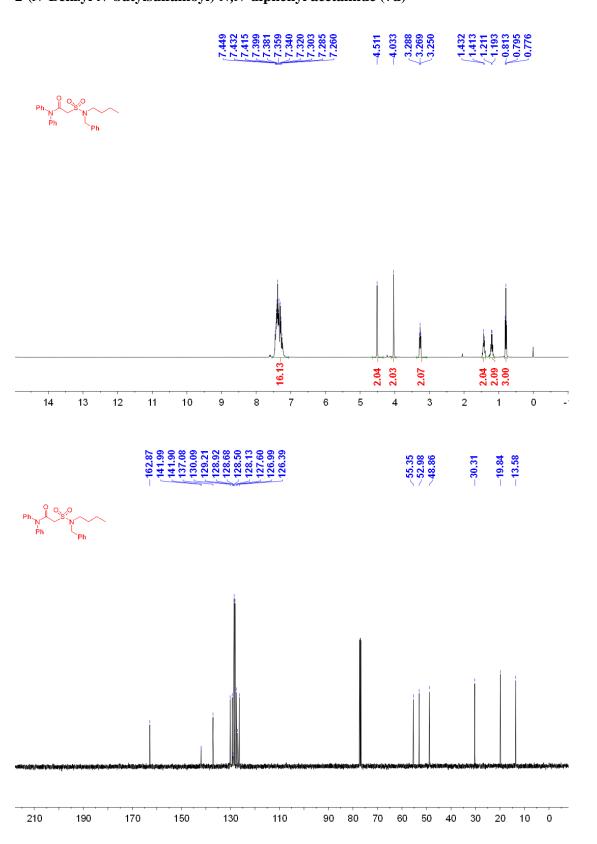
Content

Copies of ¹H and ¹³C NMR spectra of unknown compounds

2-(*N*-Benzyl-*N*-butylsulfamoyl)-*N*,*N*-diphenyl acetamide (7c):



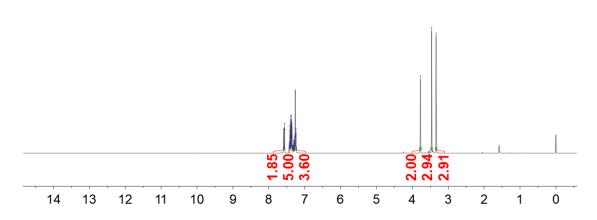
2-(N-Benzyl-N-butylsulfamoyl)-N,N-diphenyl acetamide (7d)

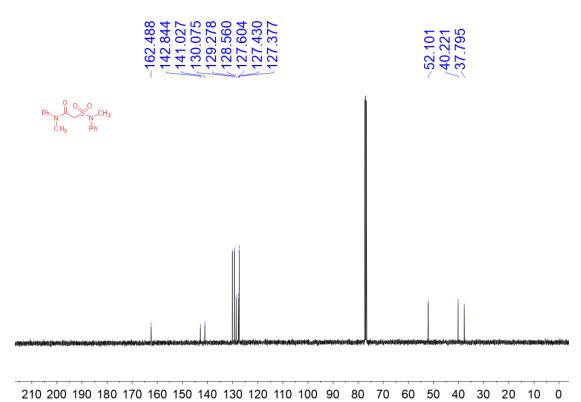


N-Methyl-2-(*N*-methyl-*N*-phenylsulfamoyl)-*N*-phenylacetamide (7e):

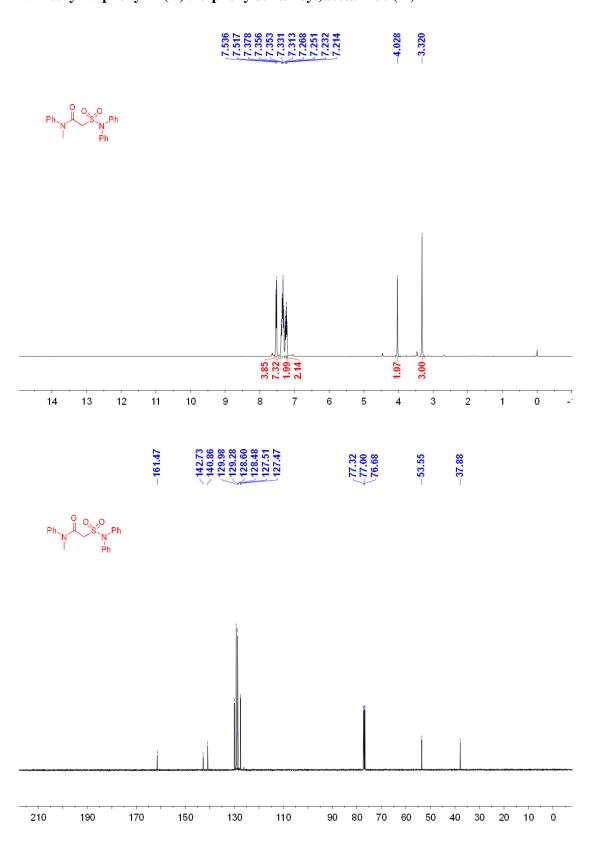








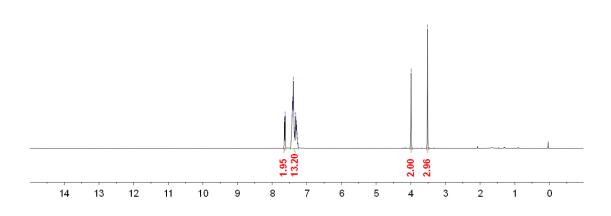
N-Methyl-N-phenyl-2-(N,N-diphenylsulfamoyl)acetamide (7f)



2-(N-Methyl-N-phenylsulfamoyl)-N,N-diphenylacetamide (7g):

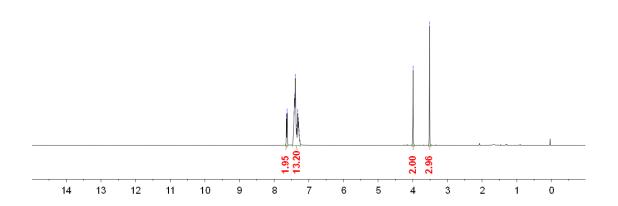






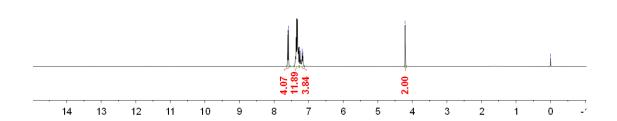






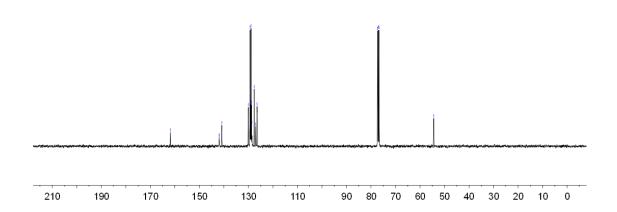
N,N-Diphenyl-2-(N,N-diphenylsulfamoyl) acetamide (7h):



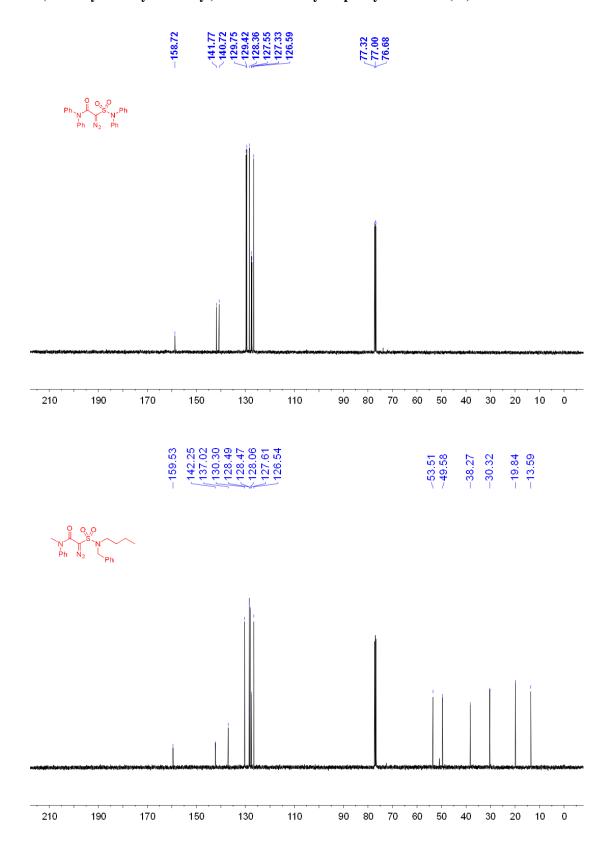




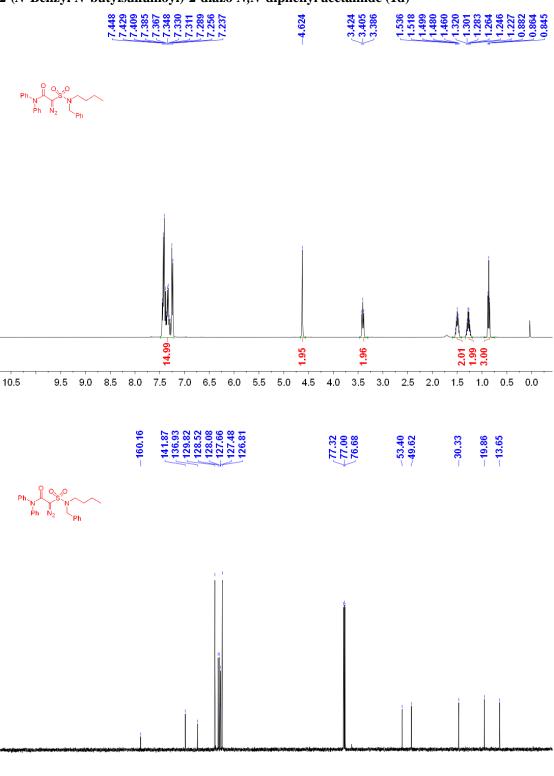




$\hbox{\bf 2-}(N\hbox{\bf -Benzyl-}N\hbox{\bf -butylsulfamoyl)-}\hbox{\bf 2-diazo-}N\hbox{\bf -methyl-}N\hbox{\bf -phenylacetamide (1c)}$



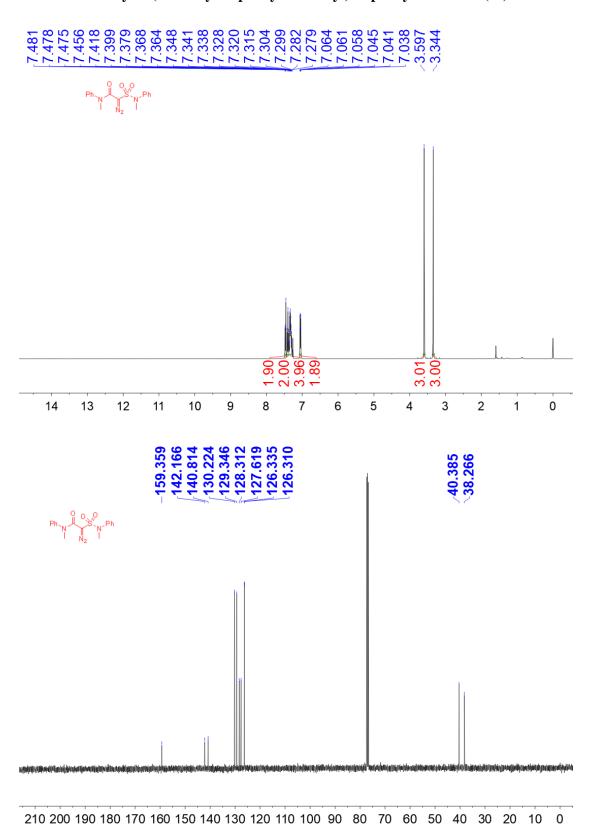
$\hbox{\bf 2-}(N\hbox{\bf -Benzyl-}N\hbox{\bf -butyl sulfamoyl})\hbox{\bf -2-diazo-}N\hbox{\bf ,}N\hbox{\bf -diphenyl acetamide (1d)}$



50 40

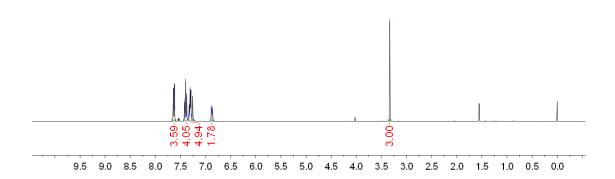
20 10

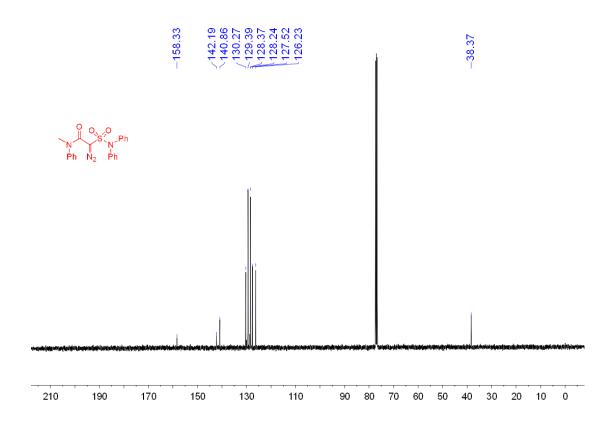
2-Diazo-N-methyl-2-(N-methyl-N-phenylsulfamoyl)-N-phenylacetamide (1e):



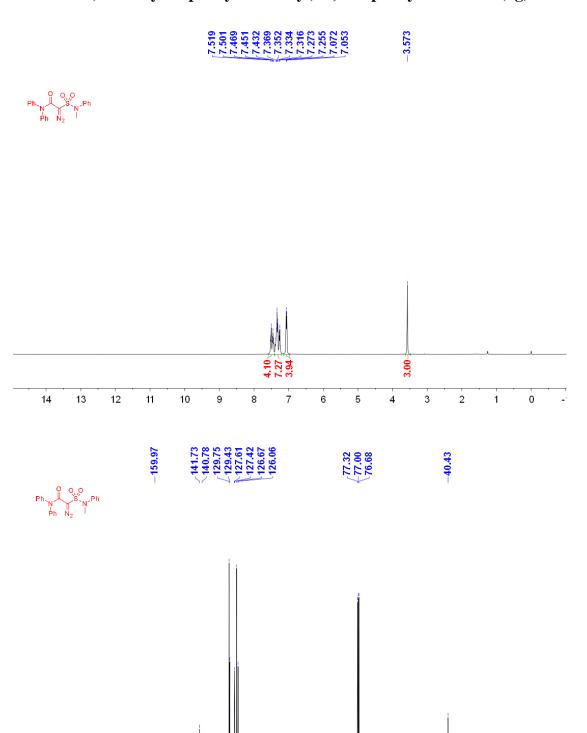
${\bf 2-Diazo-} N\text{-}methyl-N\text{-}phenyl-2\text{-}(N,\!N\text{-}diphenylsulfamoyl)} acetamide~(1f)$







2-Diazo-2-(N-methyl-N-phenylsulfamoyl)-N,N-diphenylacetamide (1g):



110

90 80 70

50 40 30 20 10

210

190

170

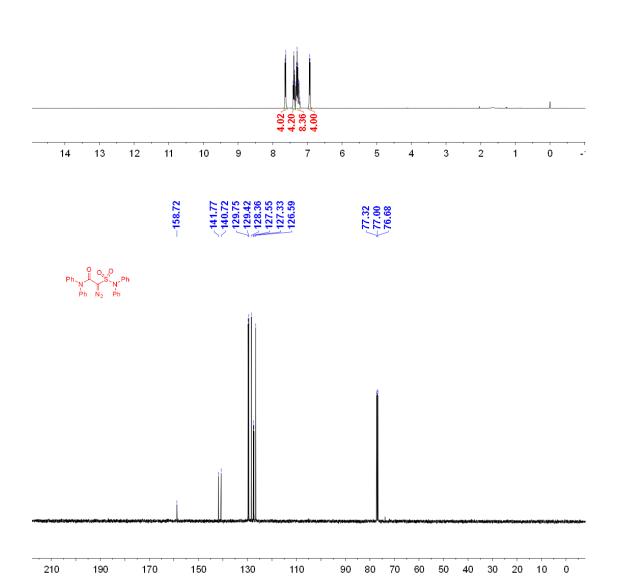
150

130

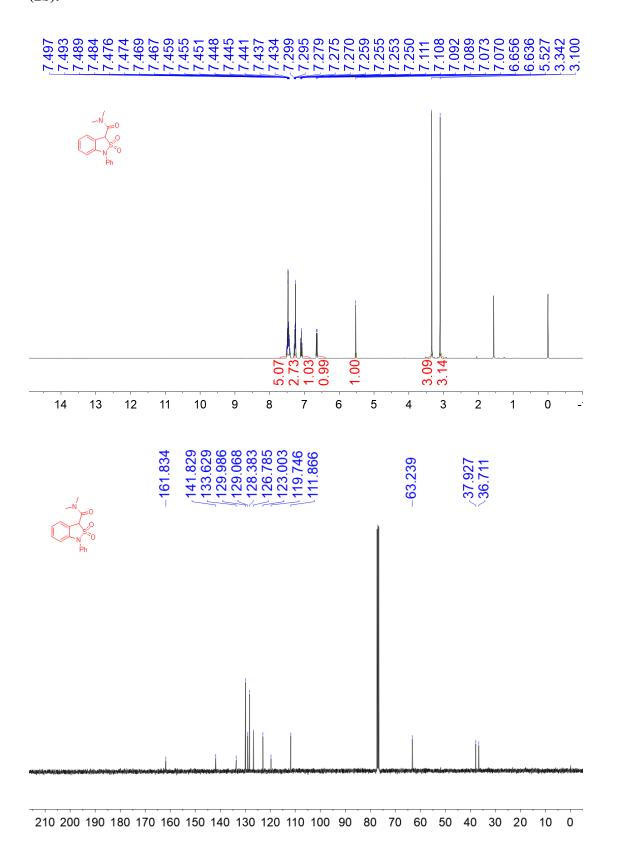
2-Diazo-N,N- diphenyl-2-(N,N- diphenylsulfamoyl) a cetamide~(1h)

7.645 7.625 7.411 7.333 7.334 7.335 7.336 7.297 7.278 7.278 7.278 7.278 7.278 7.245 7.245 7.245 7.245 7.246

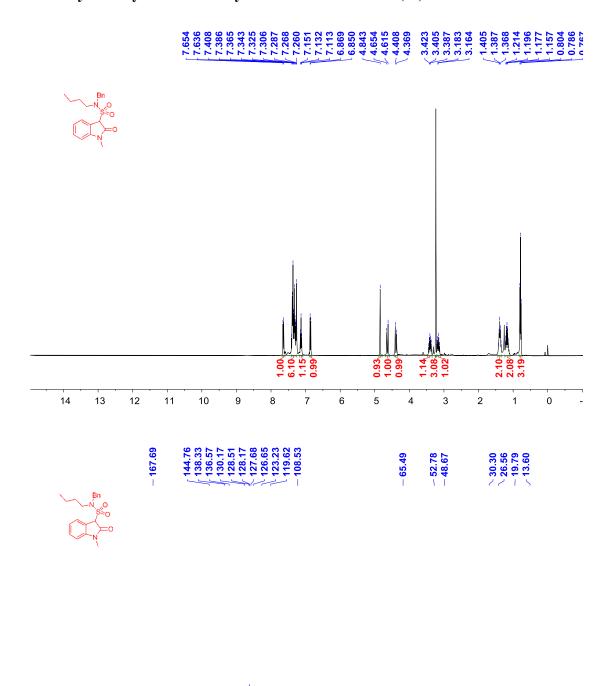




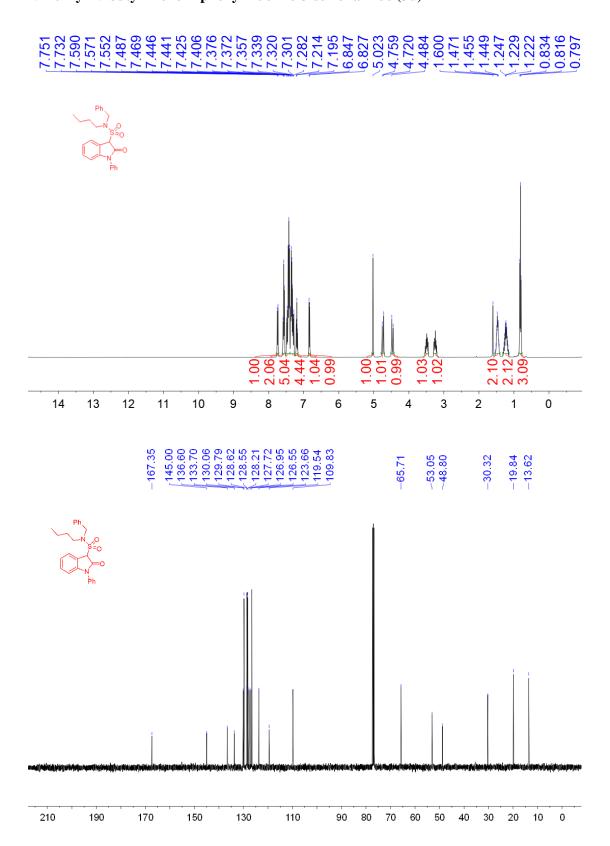
N,N-Dimethyl-2,2-dioxido-1-phenyl-1,3-dihydrobenzo[c] isothiazole-3-carboxamide (2b):



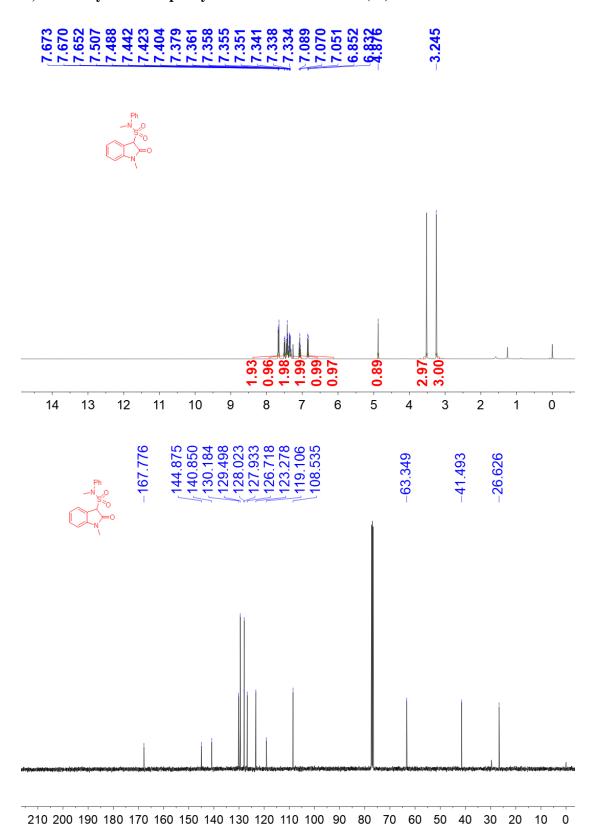
$N\hbox{-Benzyl-}N\hbox{-butyl-}2\hbox{-oxo-}1\hbox{-methylindoline-}3\hbox{-sulfonamide}\ (3c)$



$N\hbox{-Benzyl-}N\hbox{-butyl-}2\hbox{-oxo-}1\hbox{-phenylindoline-}3\hbox{-sulfonamide} \ (3d)$

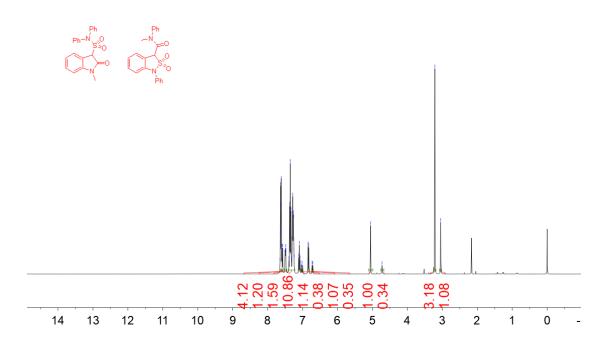


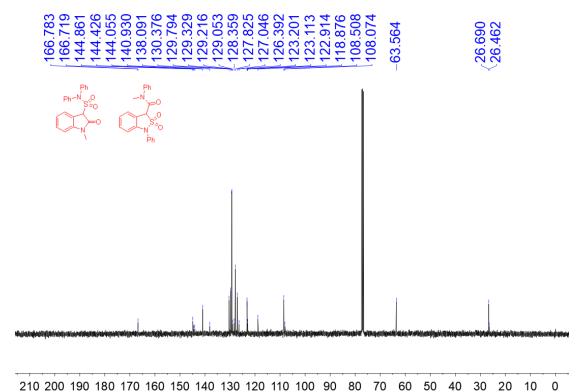
N,1-Dimethyl-2-oxo-*N*-phenylindoline-3-sulfonamide (3e):



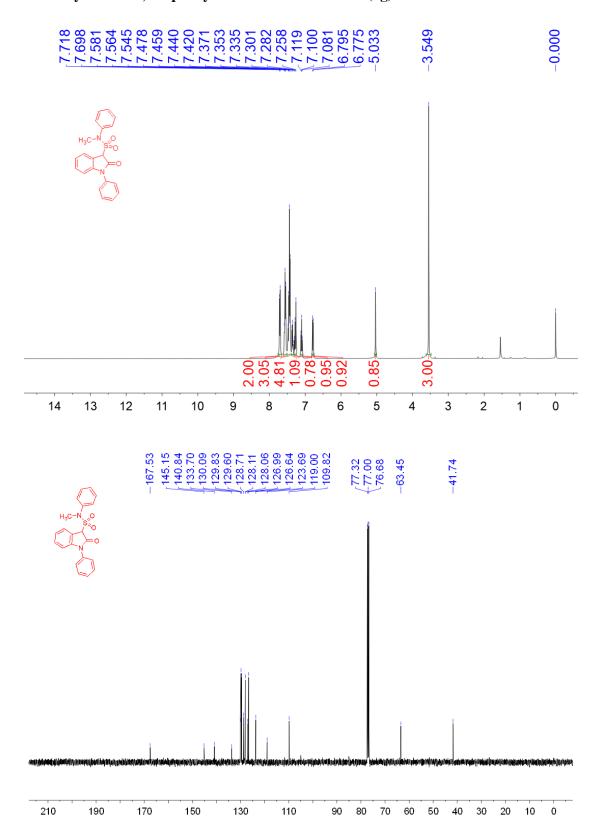
N-Methyl-2,2-dioxido-N,1-diphenyl-1,3-dihydrobenzo[c]isothiazole-3-carboxamide (2f) and 1-methyl-2-oxo-N,N-diphenylindoline-3-sulfonamide (3f):







$N\hbox{-}Methyl\hbox{-}2\hbox{-}oxo\hbox{-}N,1\hbox{-}diphenylindoline\hbox{-}3\hbox{-}sulfonamide\ (3g)$



2-Oxo-N,N,1-triphenylindoline-3-sulfonamide (3h)





