

Supporting Information for

Stereoselective and Regioselective *5-exo-dig* Cyclization of 8-Alkynylnaphthalen-1-amine for the Synthesis of (*E*)-2-(arythio) alkylene)-1,2-dihydrobenzo[*cd*]indole

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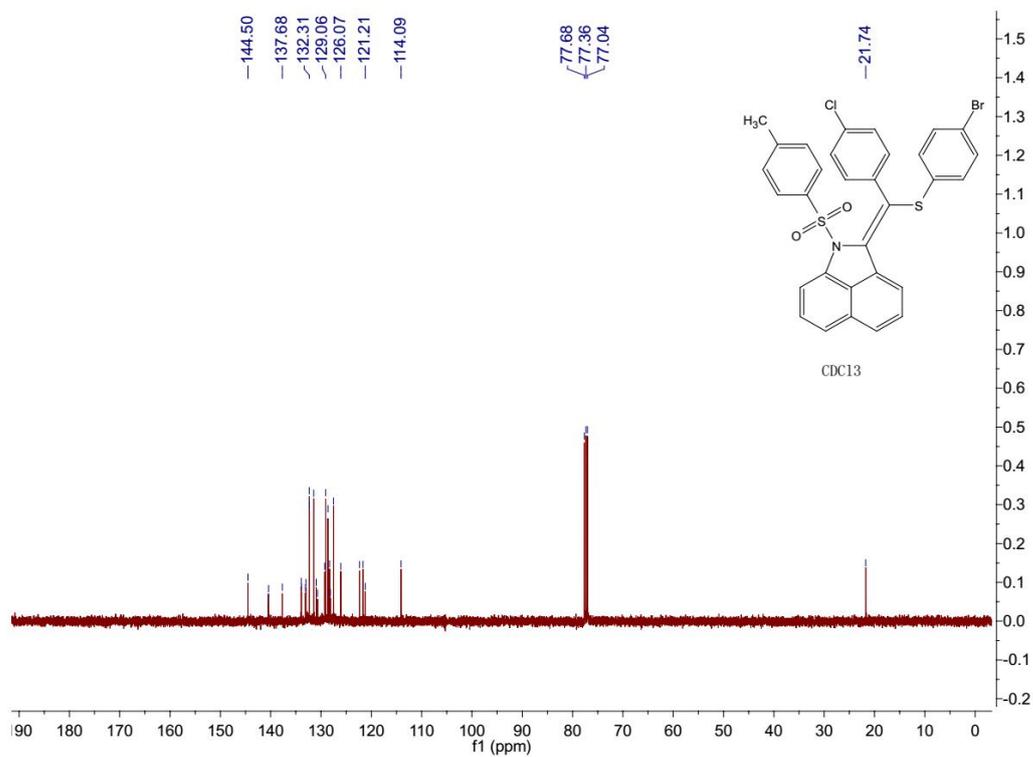
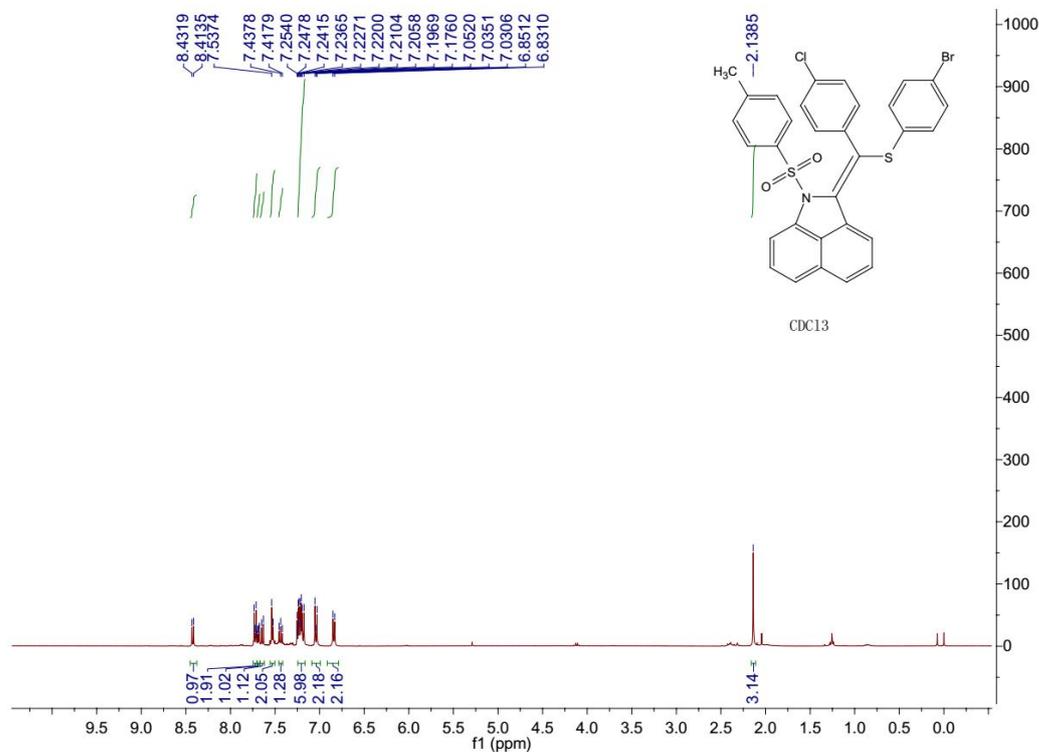
Table of contents

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| 1. Copies of ¹ H NMR and ¹³ C NMR spectra of 3 , 4 and 5 | S2 |
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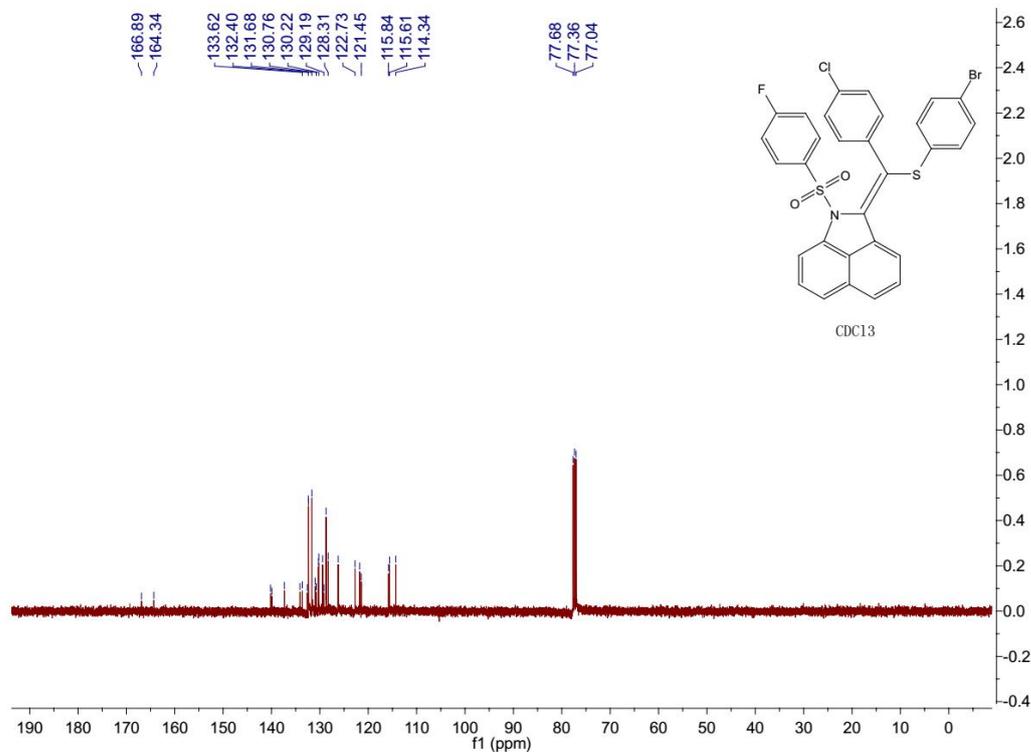
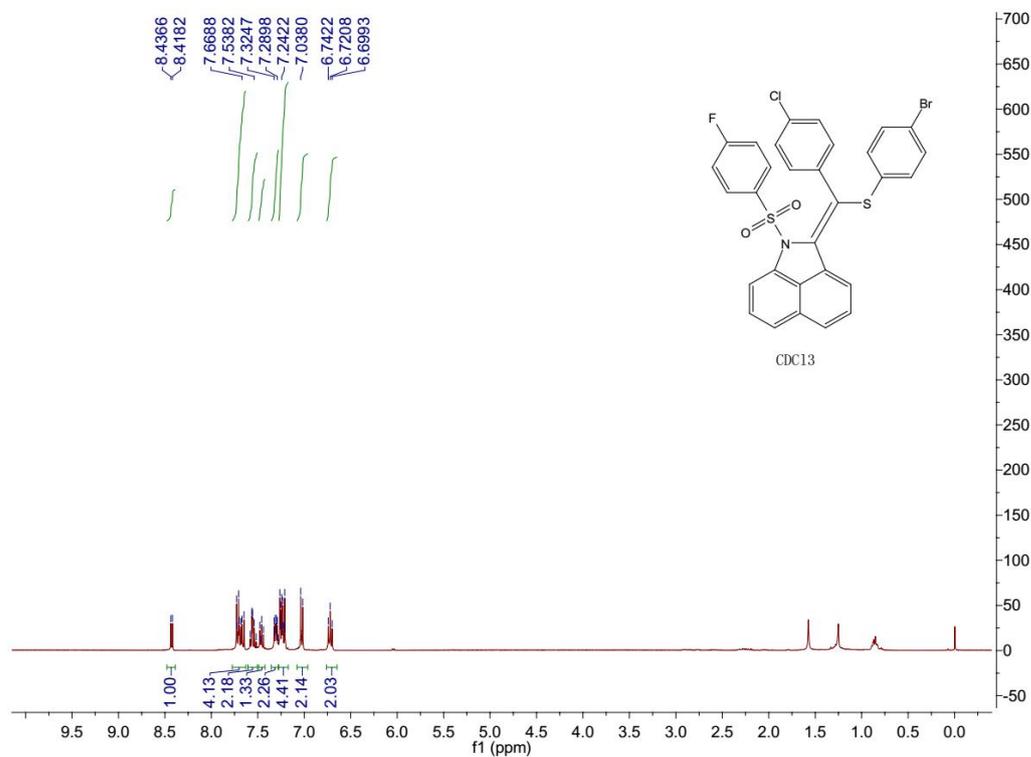
1. Copies of the Products ¹H NMR, ¹³C NMR

(*E*)-2-((4-bromophenylthio)(4-chlorophenyl)methylene)-1-tosyl-1,2-dihydrobenzo[*cd*]indole

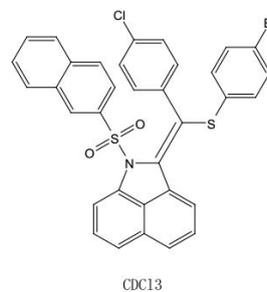
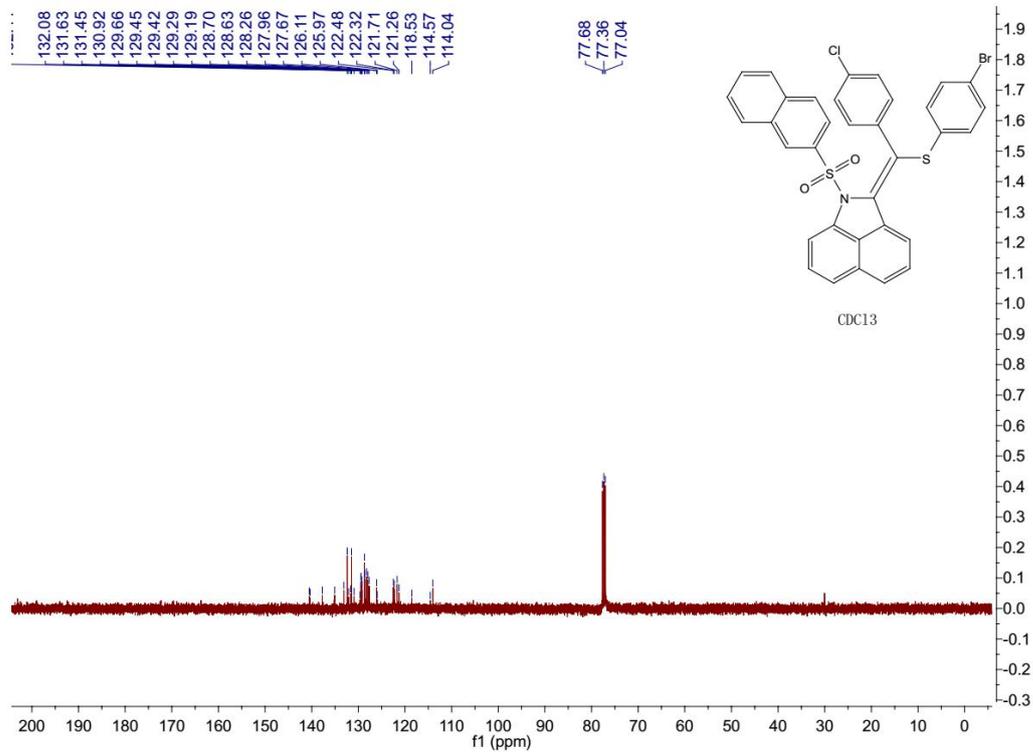
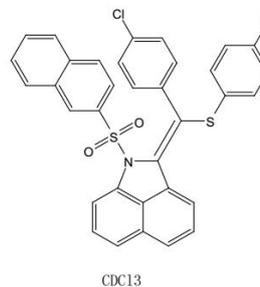
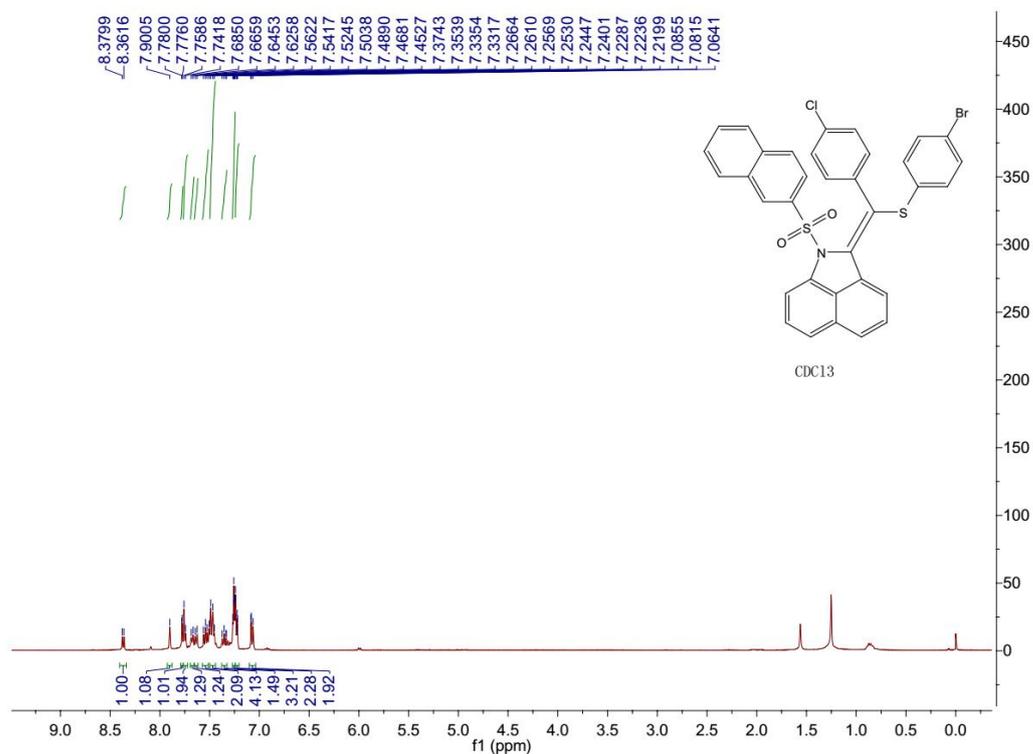
(3a)



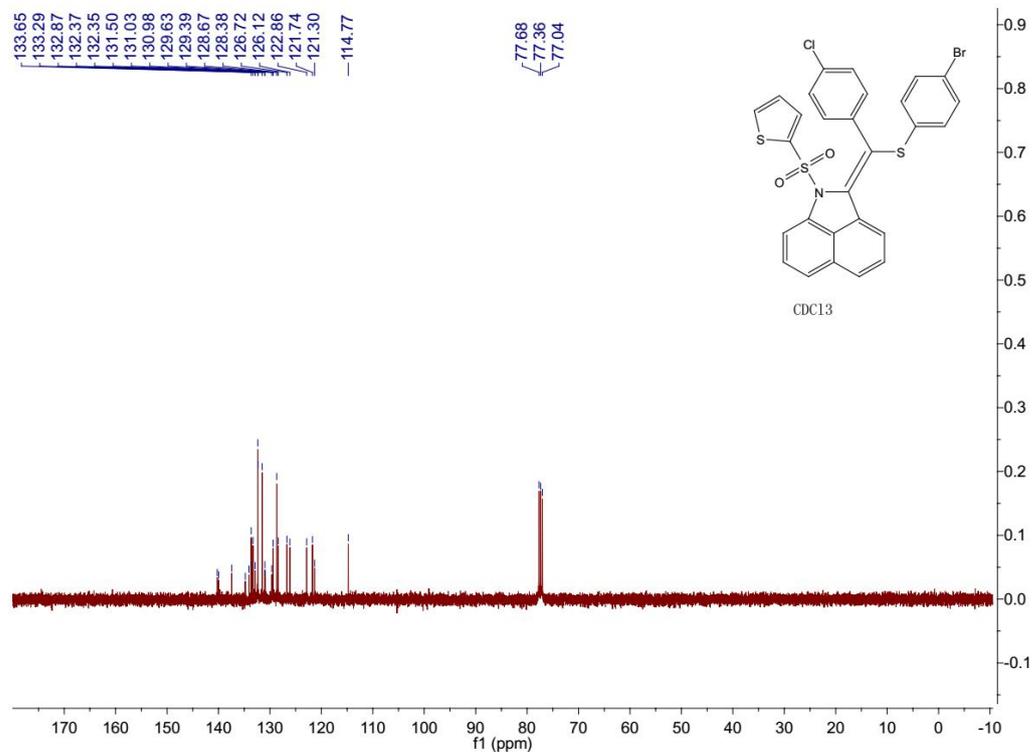
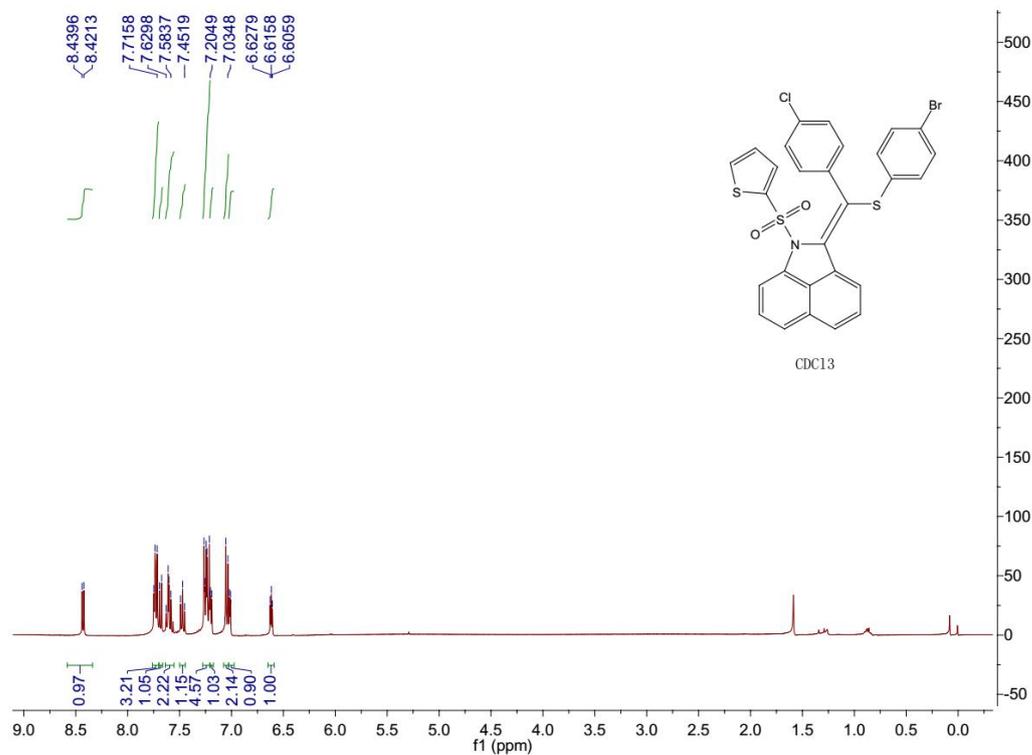
(E)-2-((4-bromophenylthio)(4-chlorophenyl)methylene)-1-(4-fluorophenylsulfonyl)-1,2-dihydrobenzo[*cd*]indole (3b)

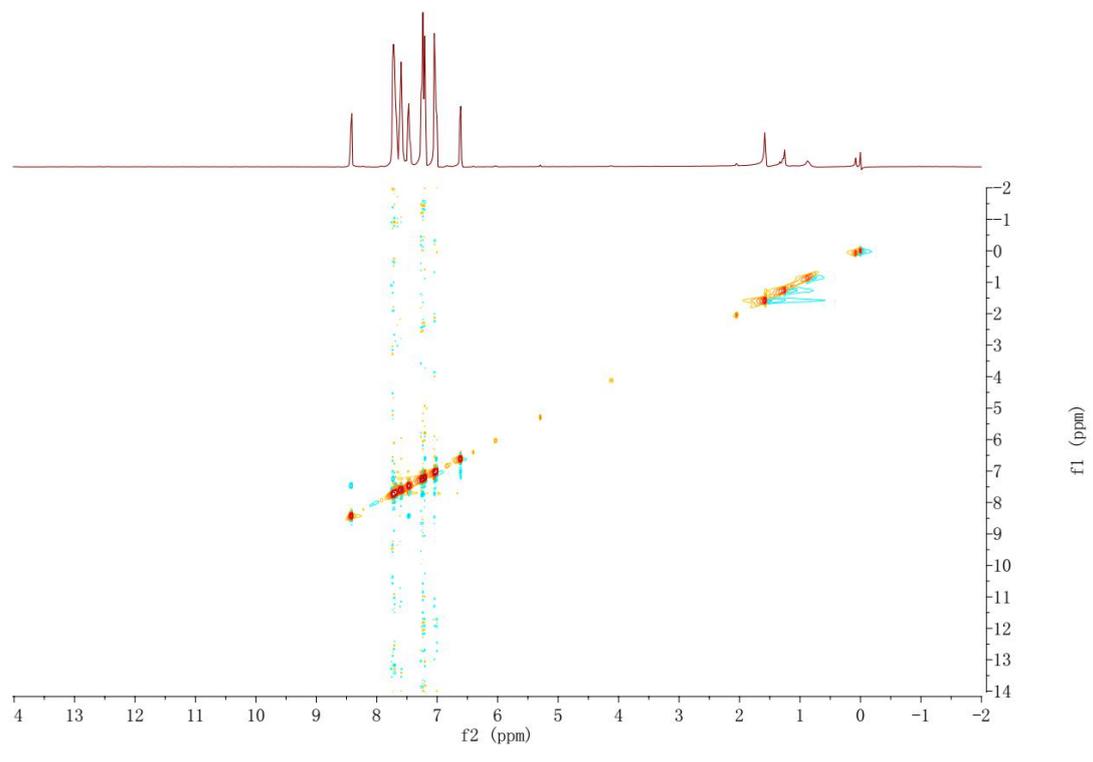


(E)-2-((4-bromophenylthio)(4-chlorophenyl)methylene)-1-(naphthalen-2-ylsulfonyl)-1,2-dihydrobenzo[*cd*]indole (3c)

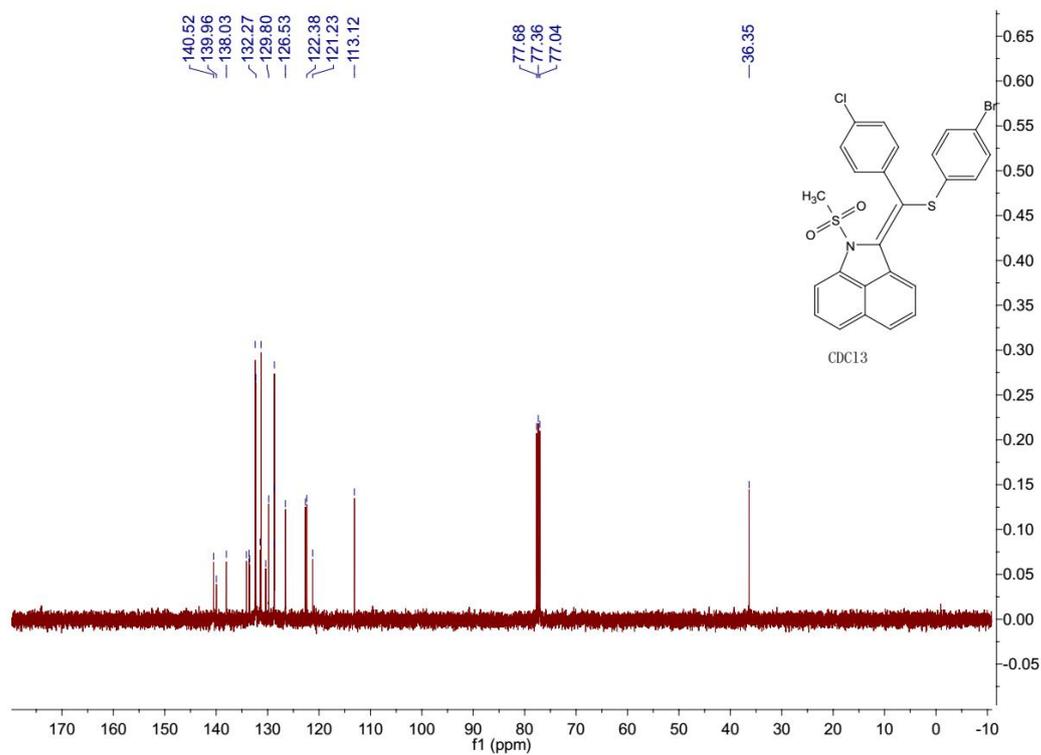
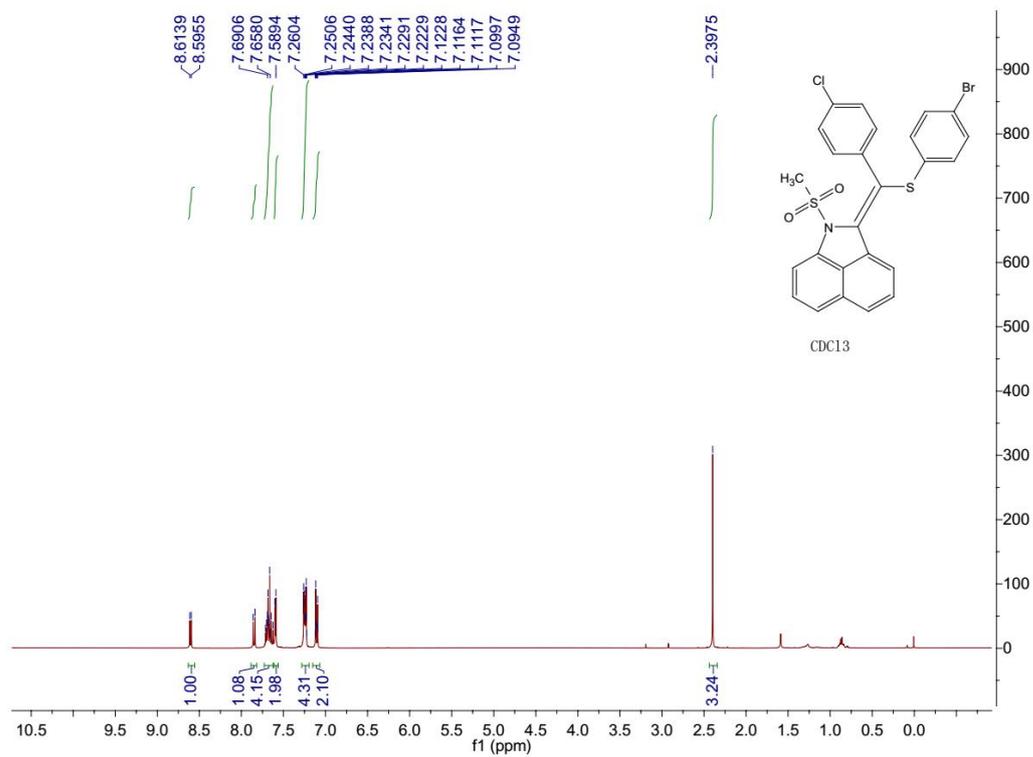


(E)-2-((4-bromophenylthio)(4-chlorophenyl)methylene)-1-(thiophen-2-ylsulfonyl)-1,2-dihydrobenzo[*cd*]indole (3d)

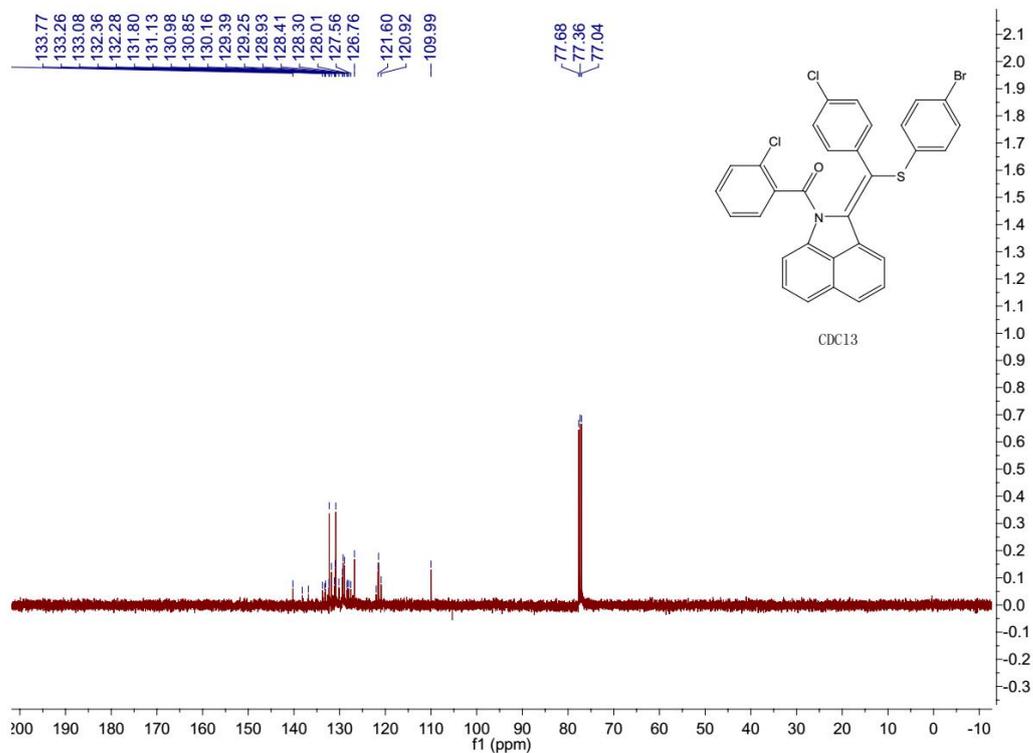
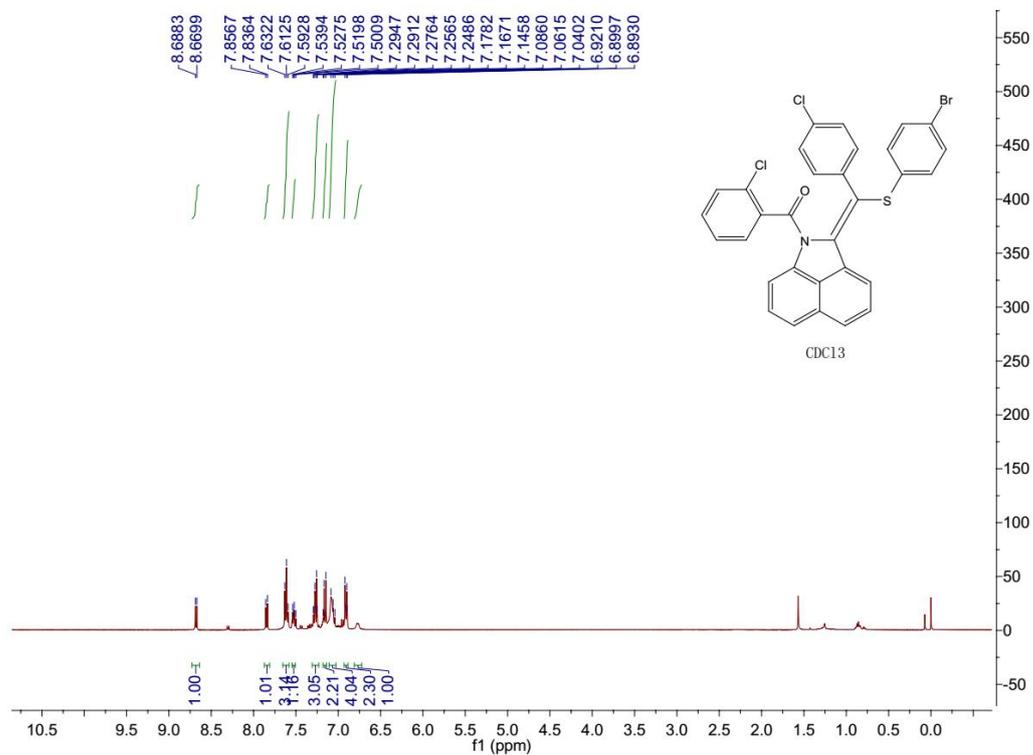




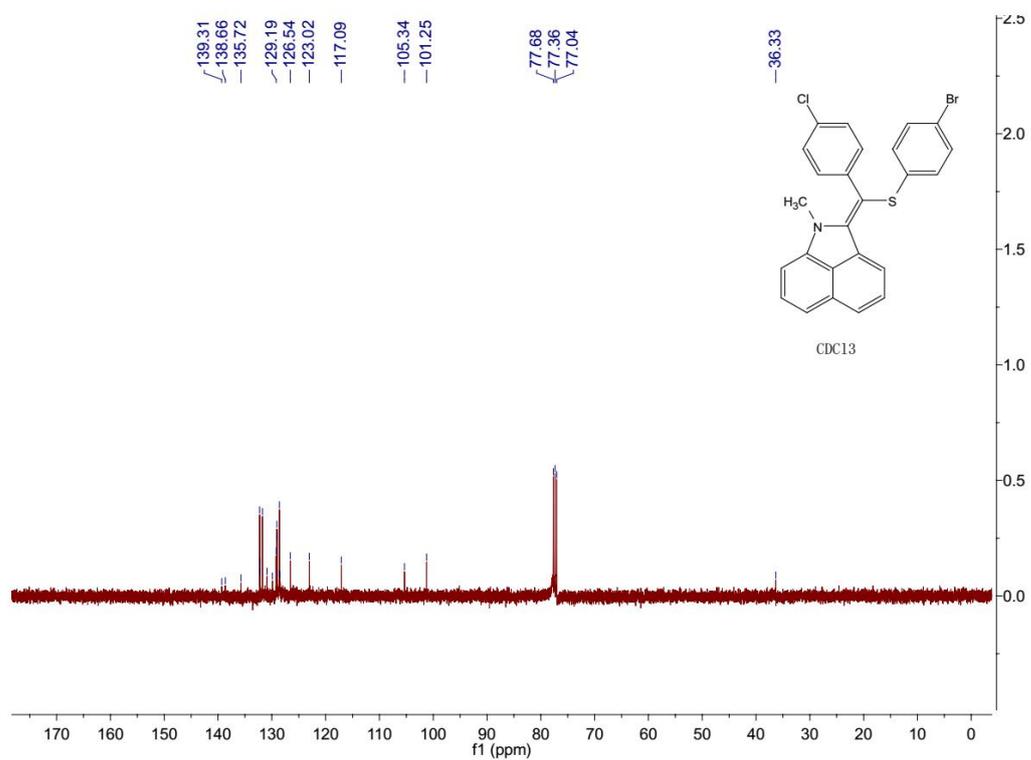
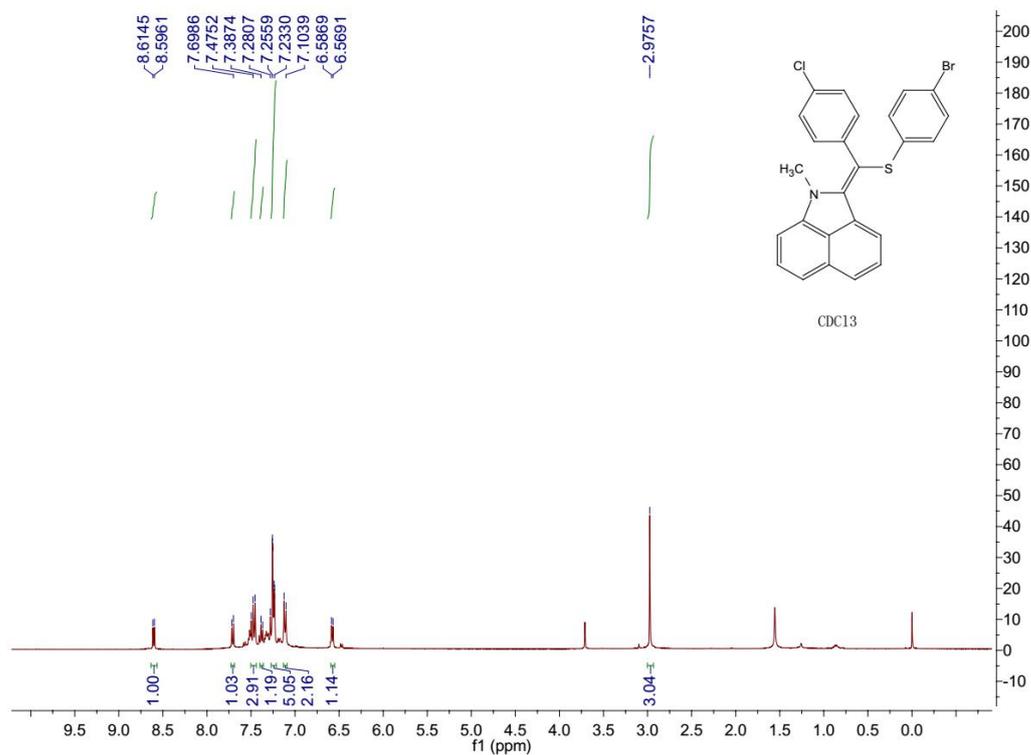
(E)-2-((4-bromophenylthio)(4-chlorophenyl)methylene)-1-(methylsulfonyl)-1,2-dihydrobenzo[*cd*]indole (3e)



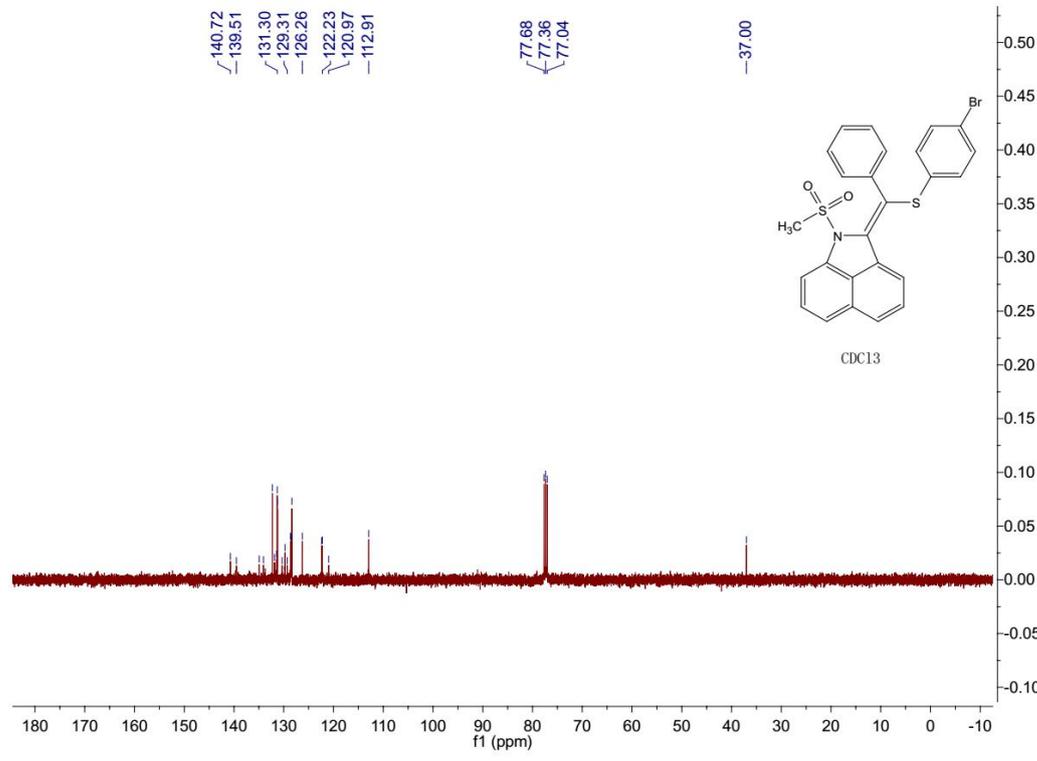
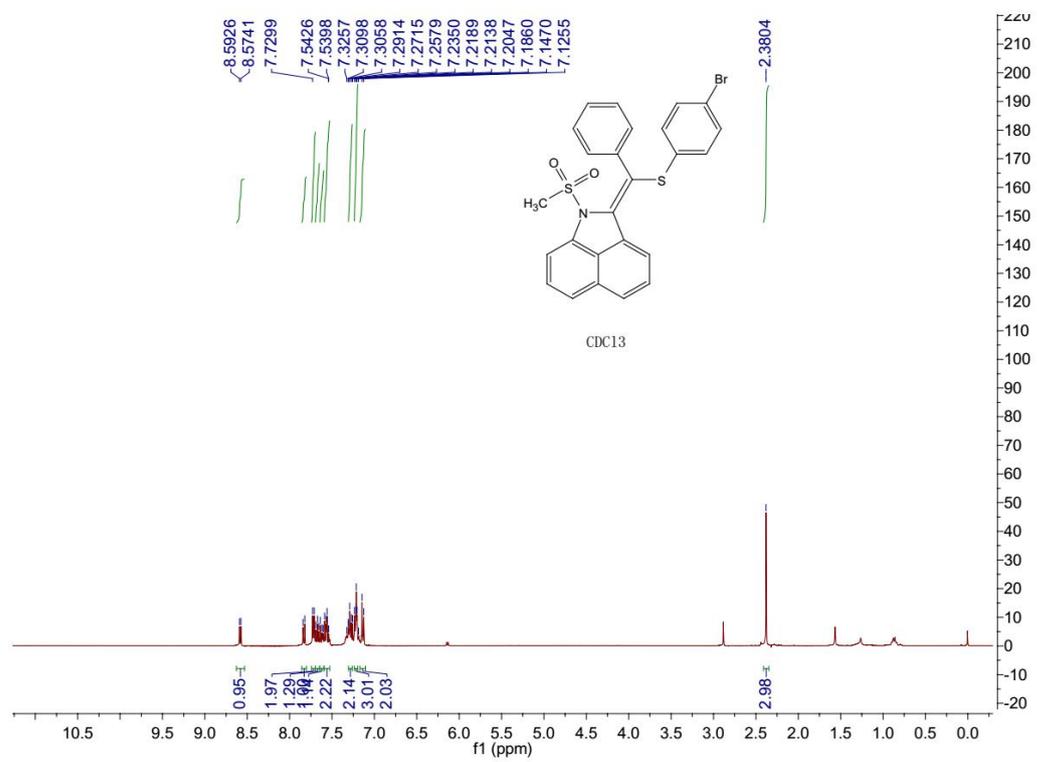
(E)-2-((4-bromophenylthio)(4-chlorophenyl)methylene)benzo[cd]indol-1(2H)-yl)(2-chlorophenyl)methanone (3f)



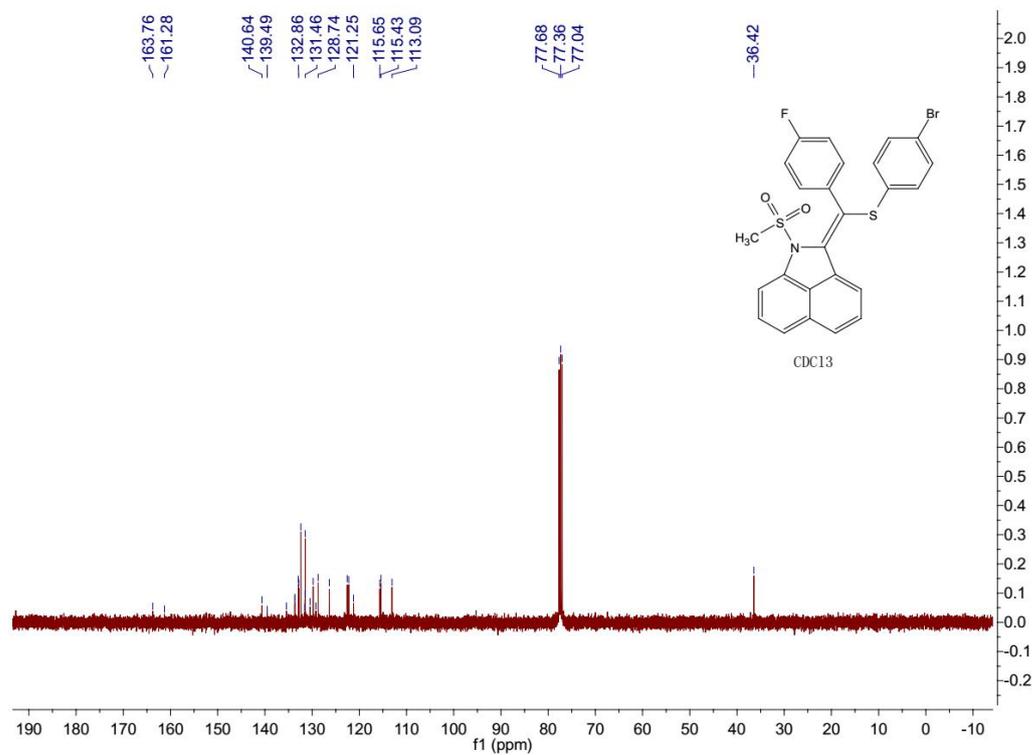
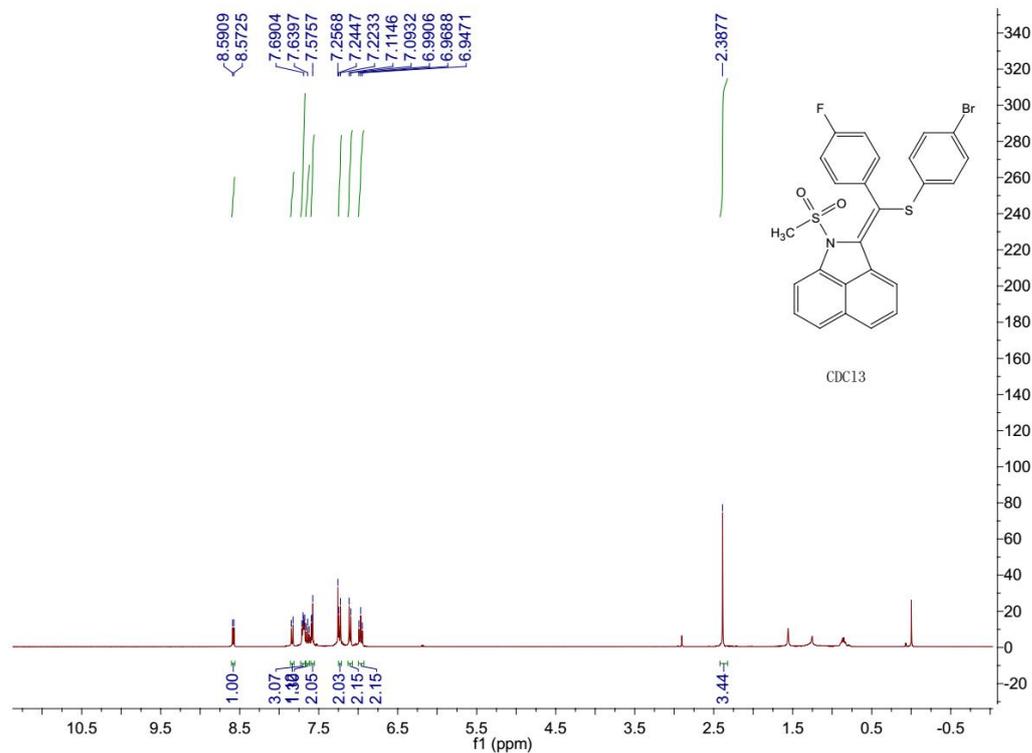
**(E)-2-((4-bromophenylthio)(4-chlorophenyl)methylene)-1-methyl-1,2-dihydrobenzo[*cd*]indol
e (3g)**



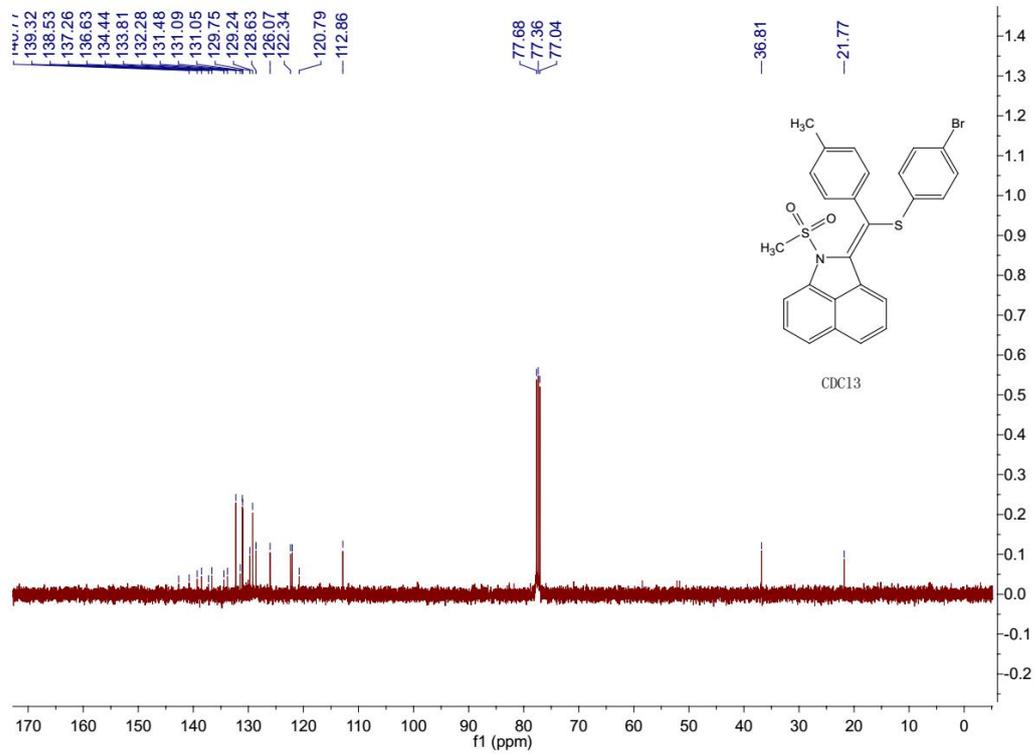
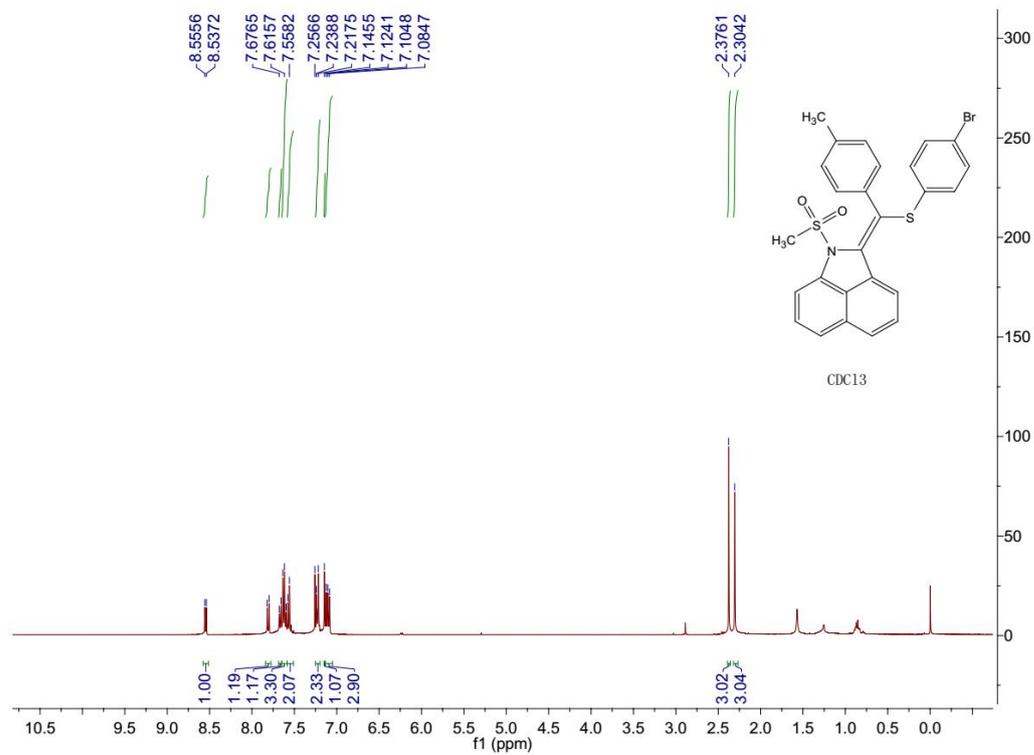
(E)-2-((4-bromophenylthio)(phenyl)methylene)-1-(methylsulfonyl)-1,2-dihydrobenzo[cd]indole (3h)



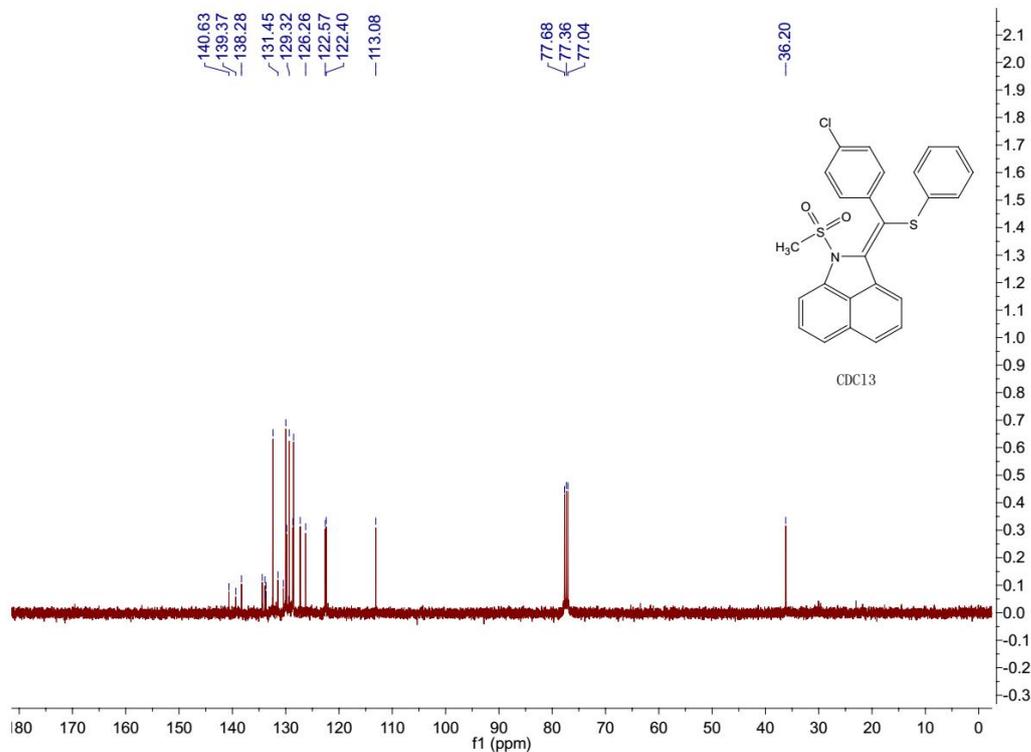
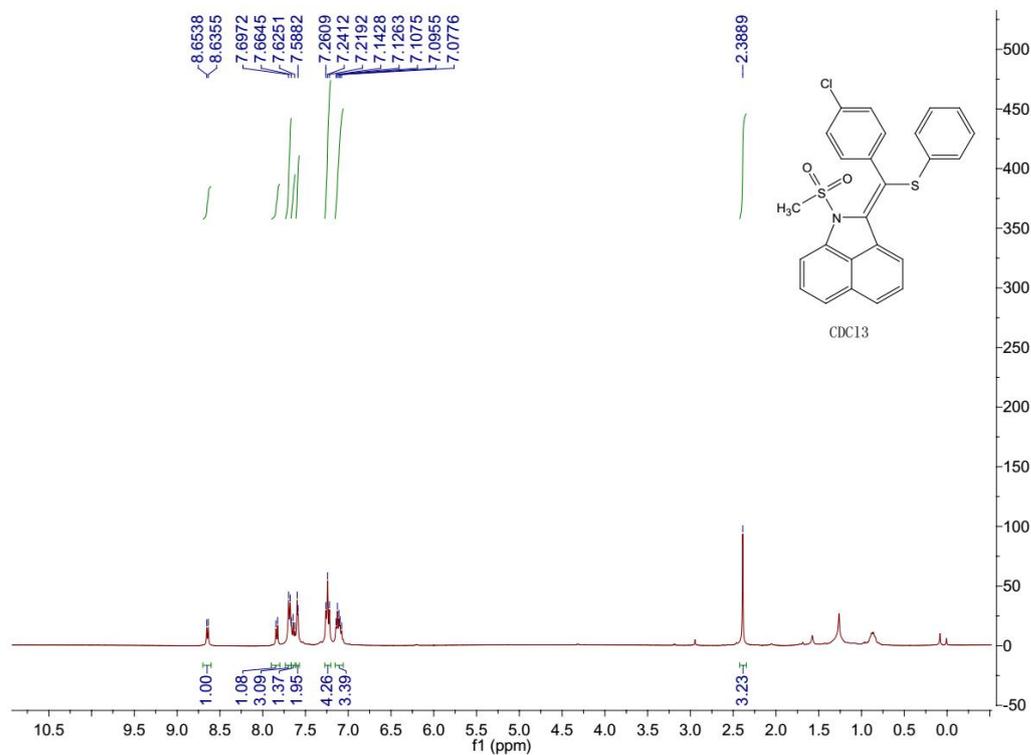
(E)-2-((4-bromophenylthio)(4-fluorophenyl)methylene)-1-(methylsulfonyl)-1,2-dihydrobenzo[*cd*]indole (3i)



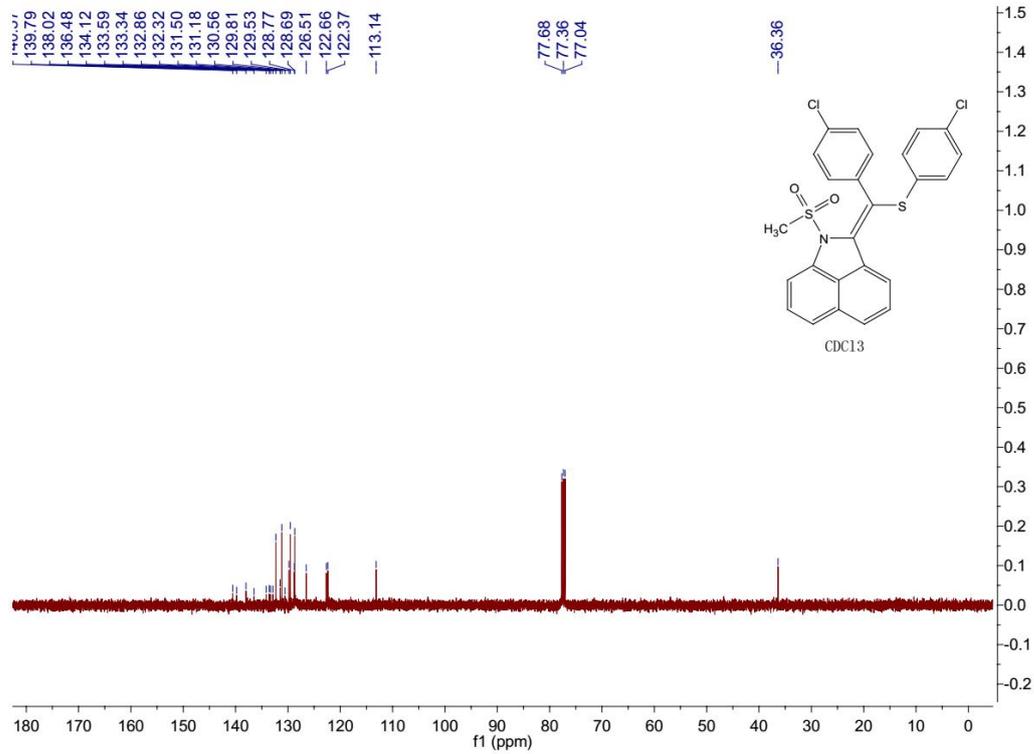
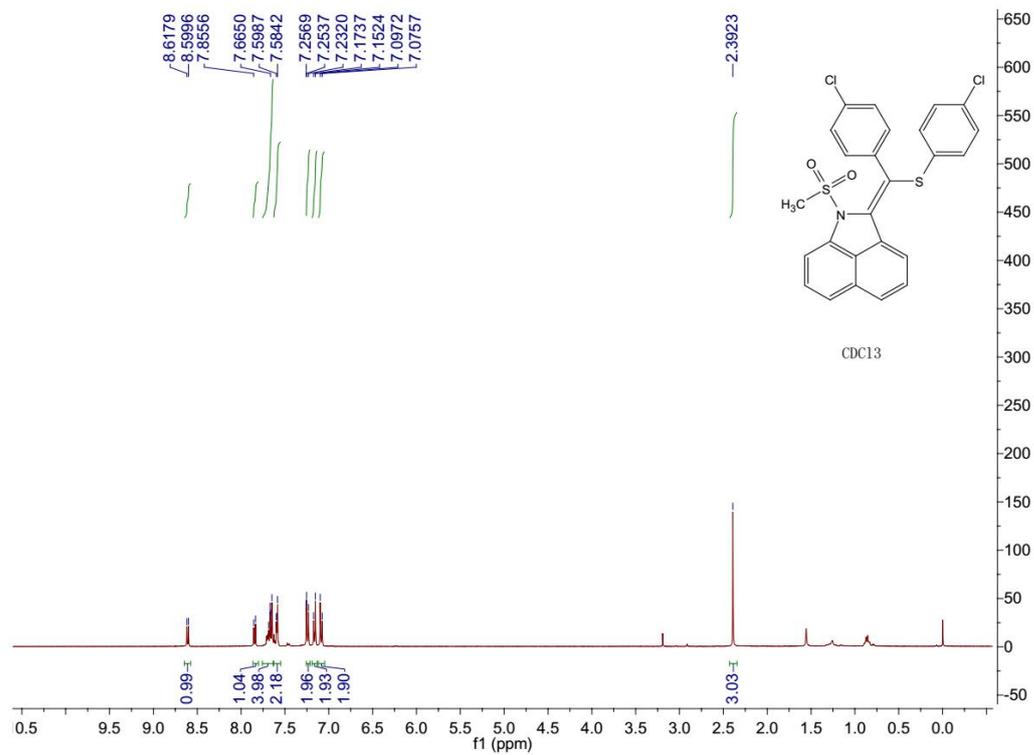
(E)-2-((4-bromophenylthio)(p-tolyl)methylene)-1-(methylsulfonyl)-1,2-dihydrobenzo[cd]indole (3j)



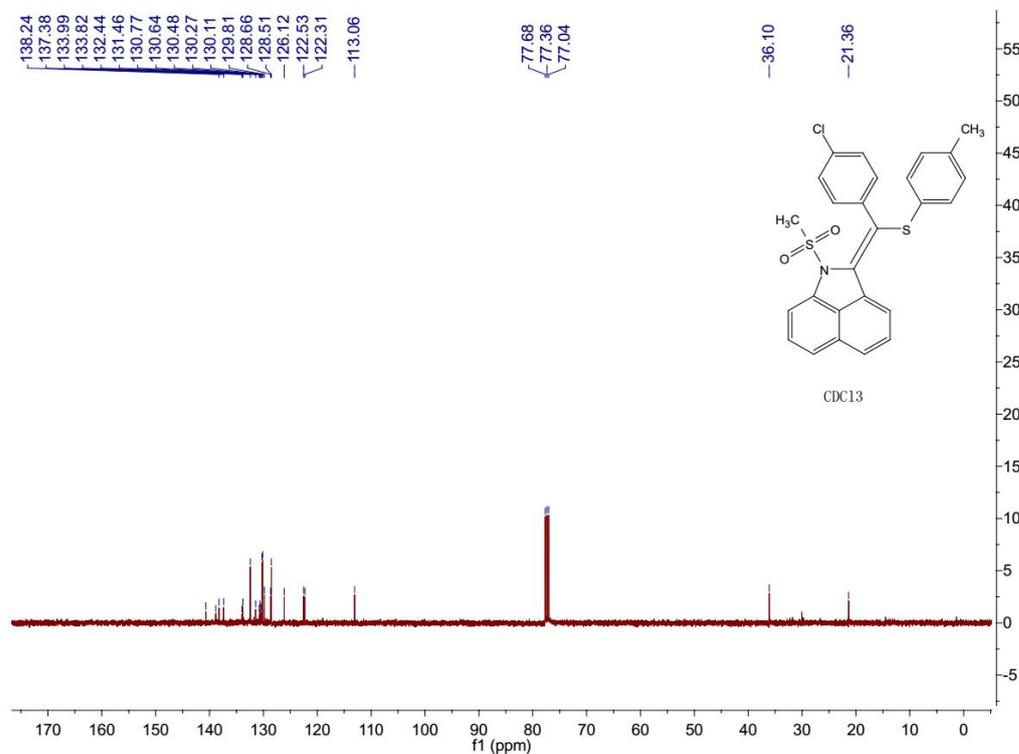
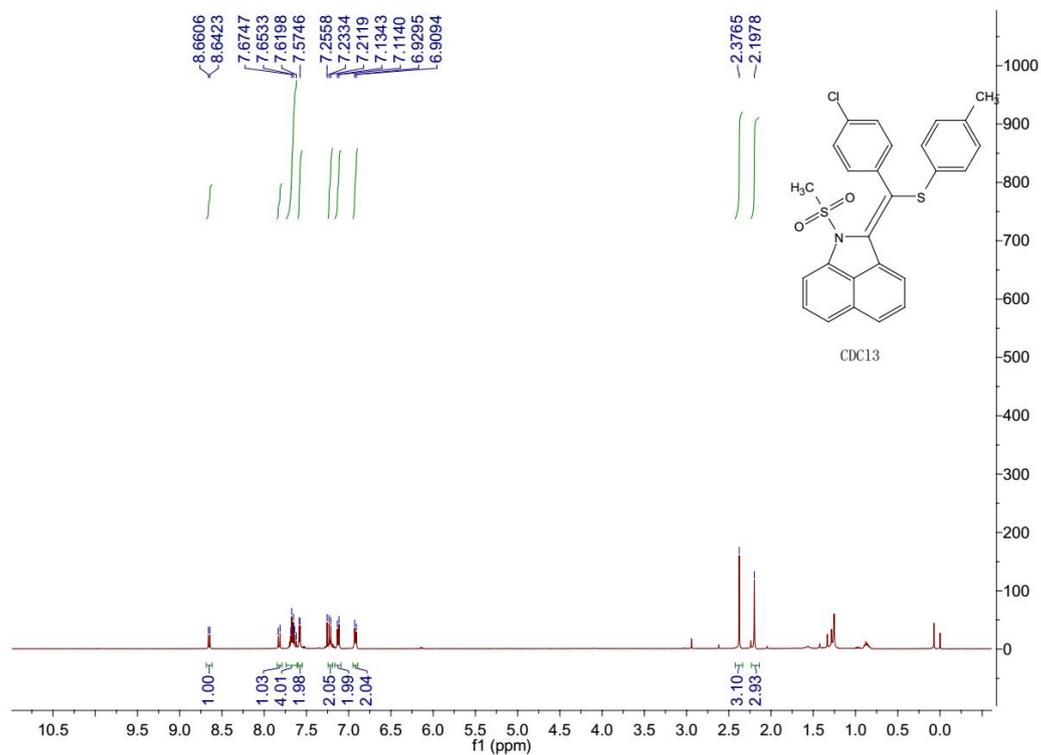
(E)-2-((4-chlorophenyl)(phenylthio)methylene)-1-(methylsulfonyl)-1,2-dihydrobenzo[cd]indole (3k)



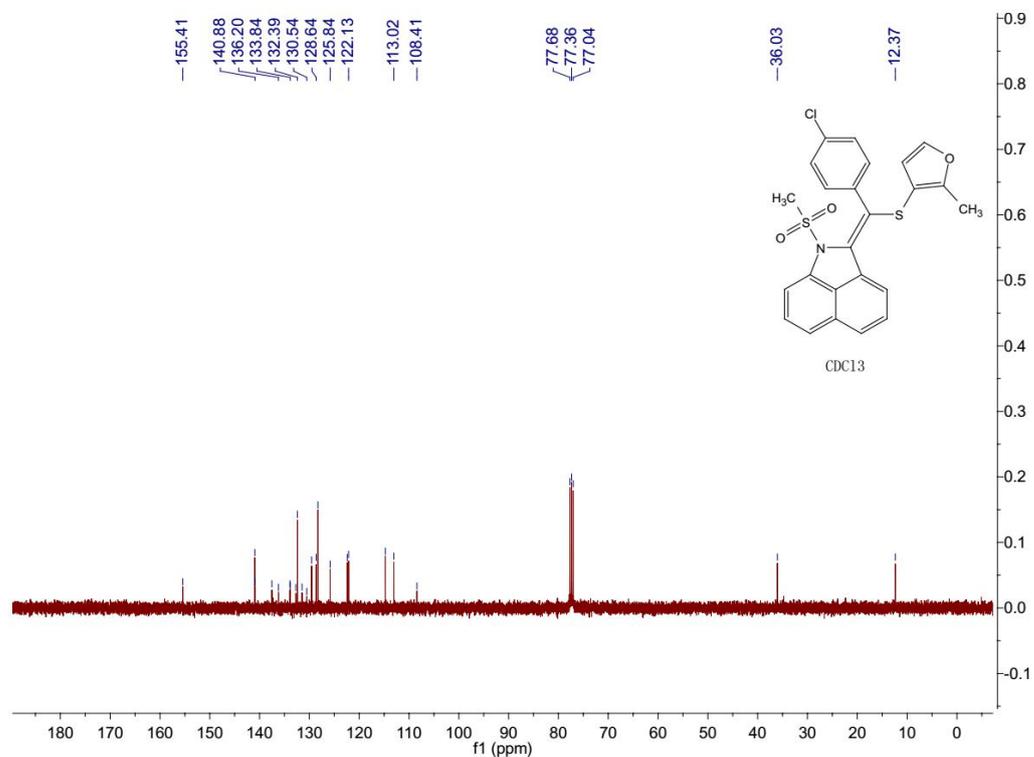
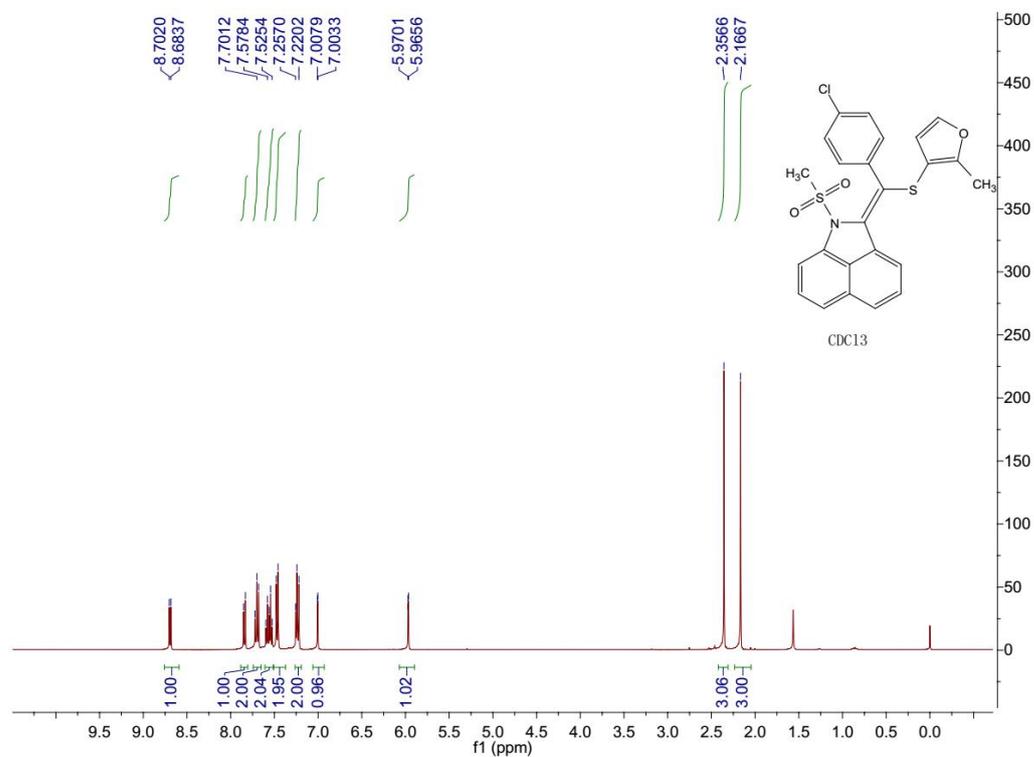
(E)-2-((4-chlorophenyl)(4-chlorophenylthio)methylene)-1-(methylsulfonyl)-1,2-dihydrobenzo[cd]indole (31)

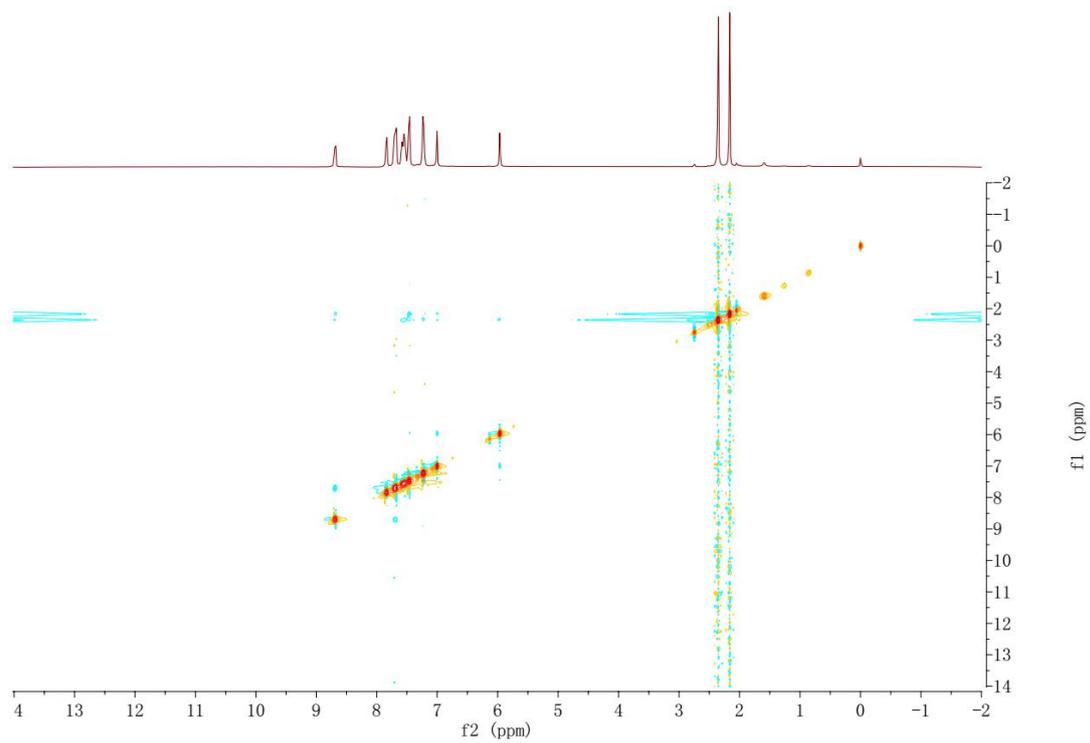


(E)-2-((4-chlorophenyl)(p-tolylthio)methylene)-1-(methylsulfonyl)-1,2-dihydrobenzo[cd]indole (3m)

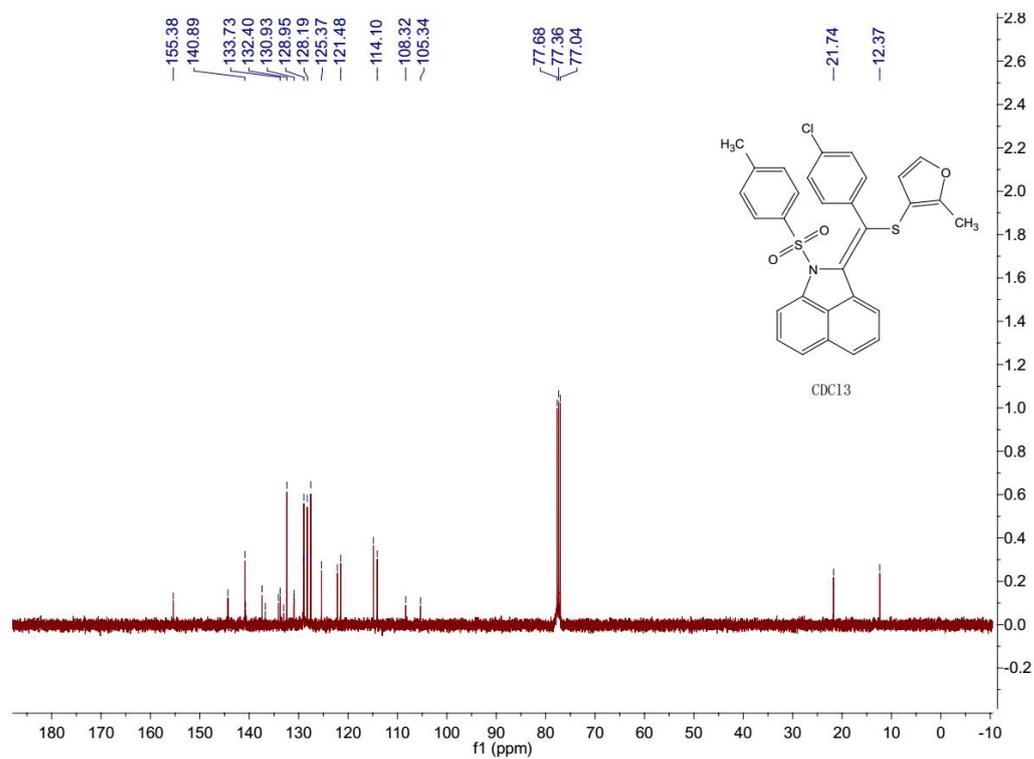
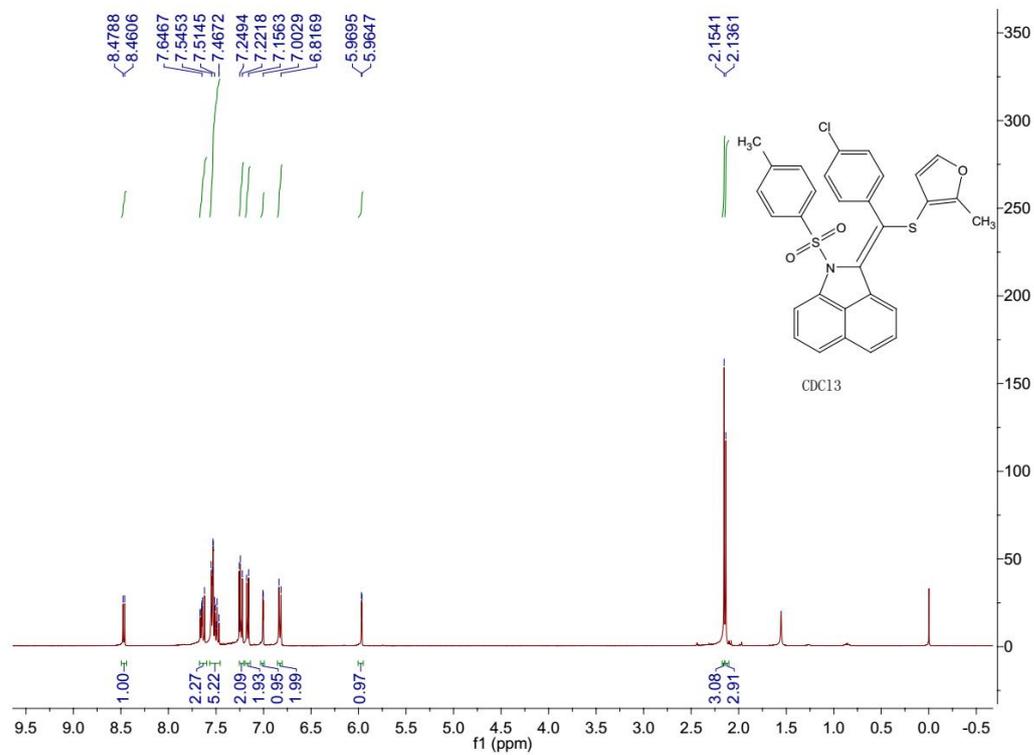


(E)-2-((4-chlorophenyl)(2-methylfuran-3-ylthio)methylene)-1-(methylsulfonyl)-1,2-dihydrobenzo[*cd*]indole (3n)

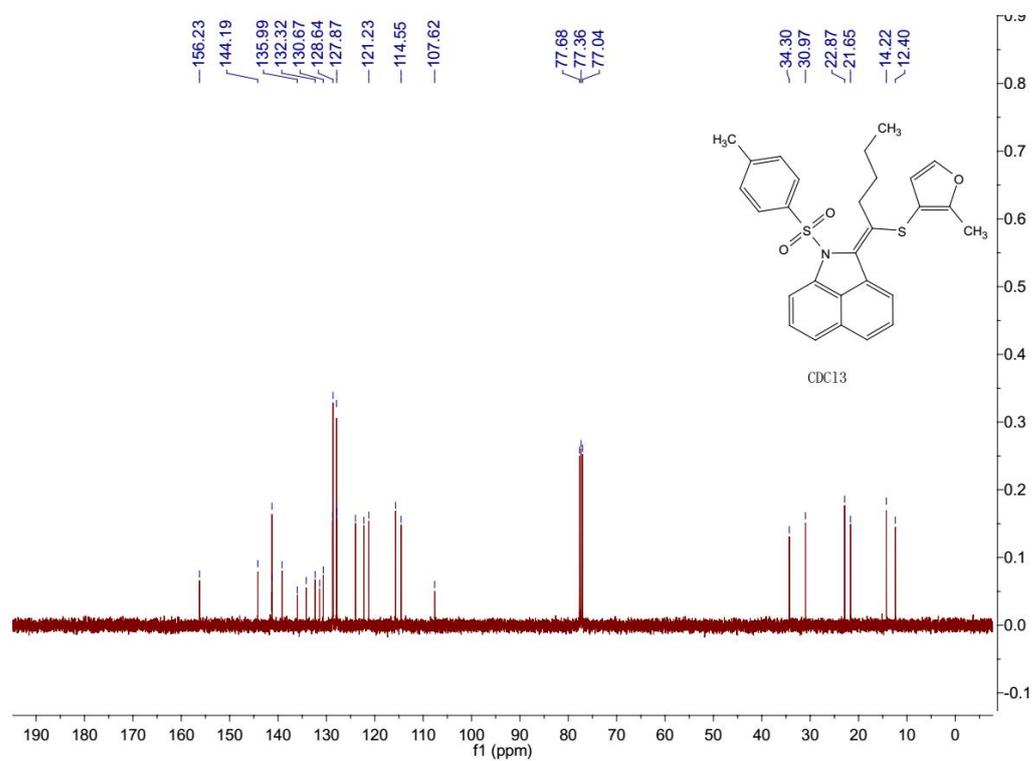
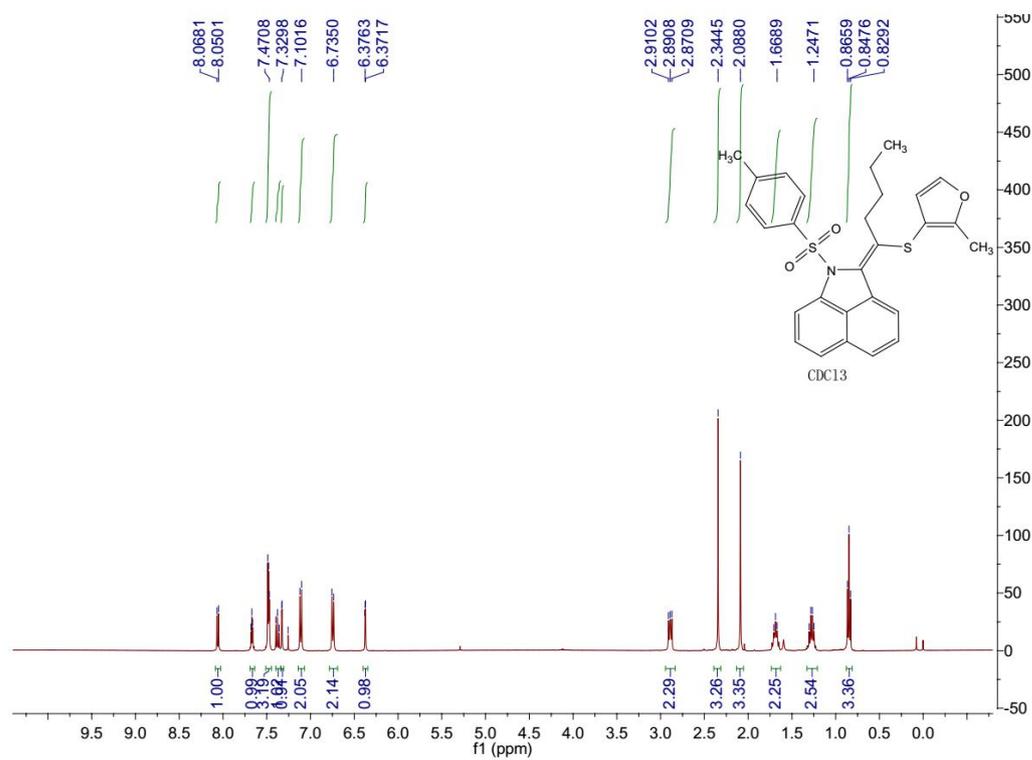




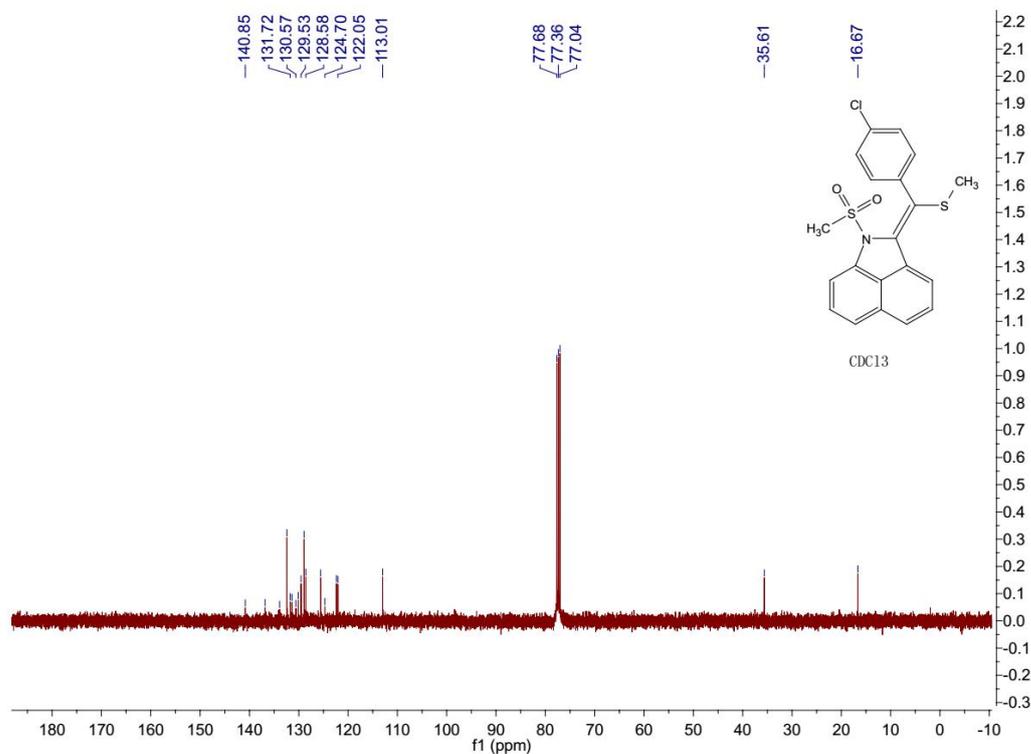
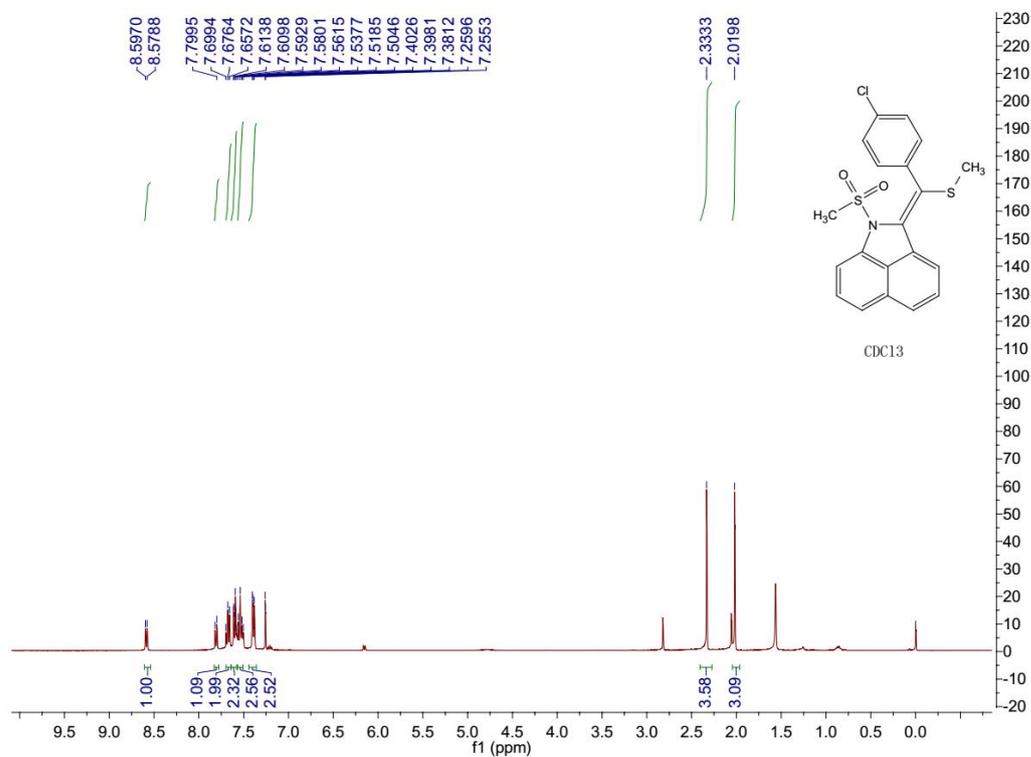
(E)-2-((4-chlorophenyl)(2-methylfuran-3-ylthio)methylene)-1-tosyl-1,2-dihydrobenzo[*cd*]indole (3o)



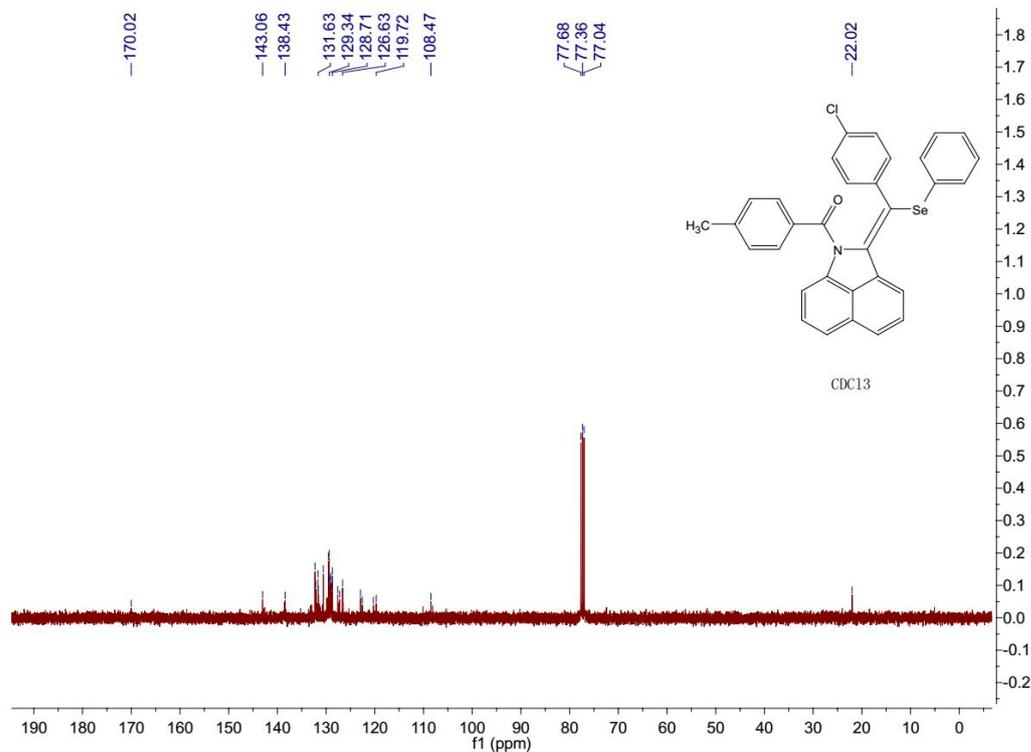
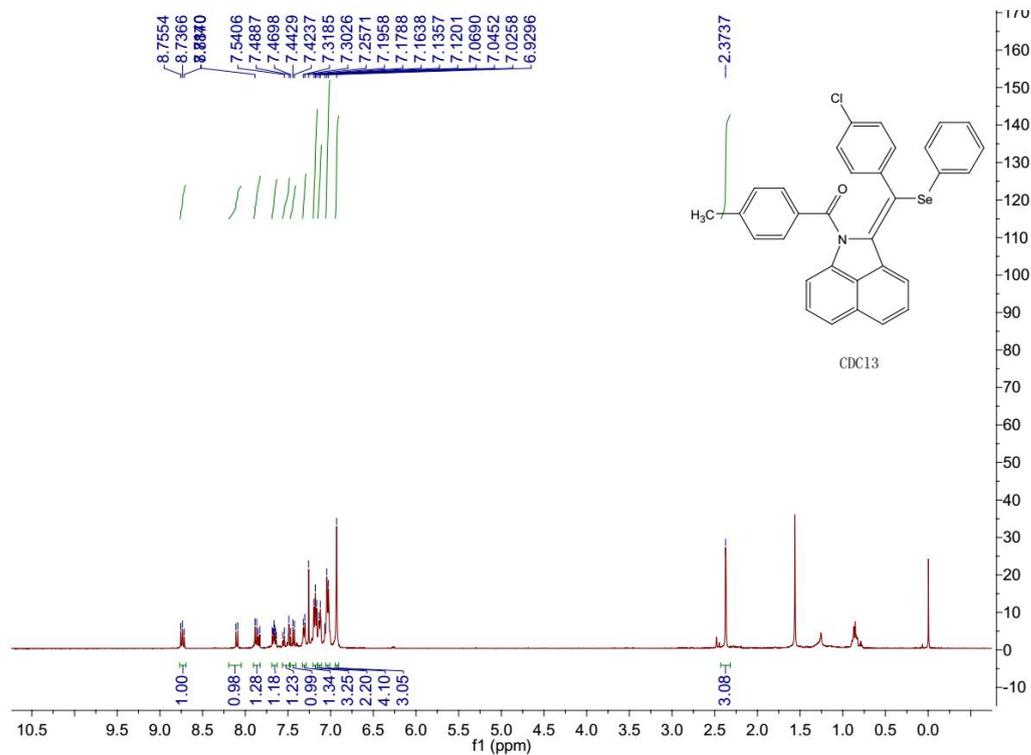
(E)-2-(1-(2-methylfuran-3-ylthio)pentylidene)-1-tosyl-1,2-dihydrobenzo[*cd*]indole (3p)



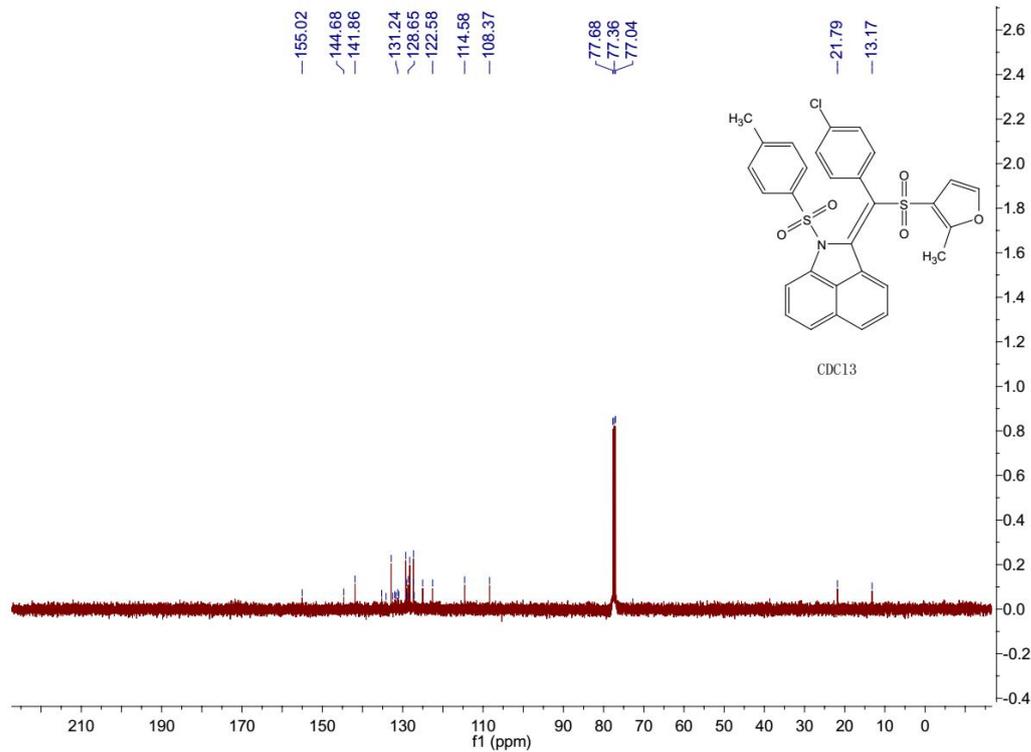
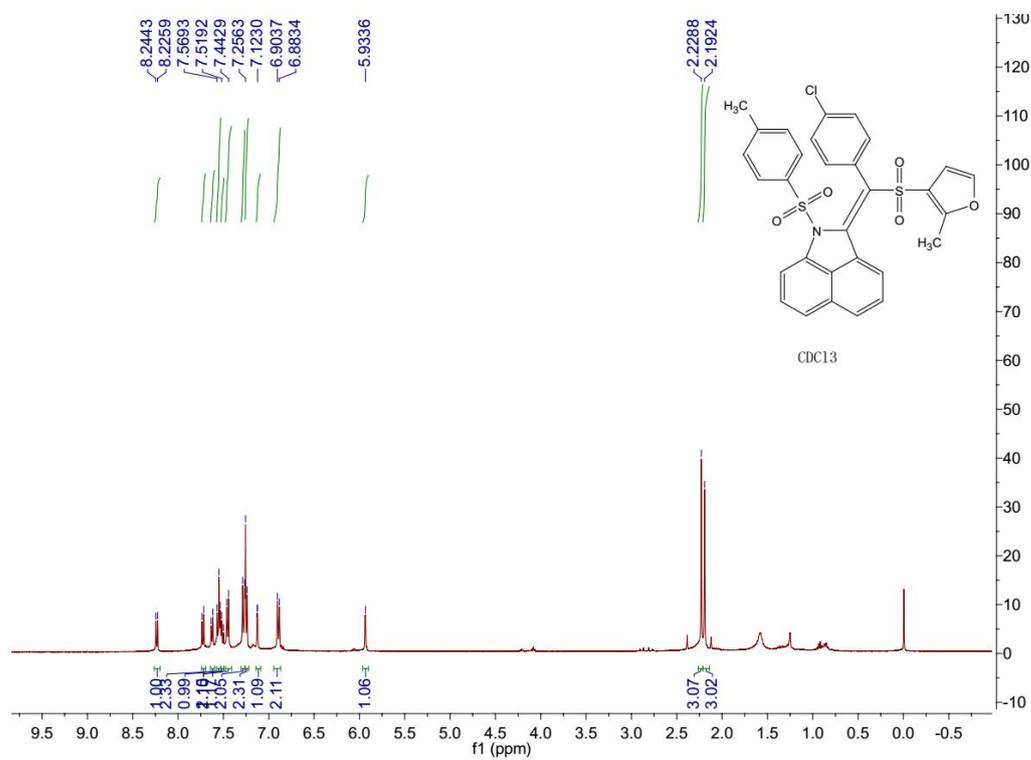
(E)-2-((4-chlorophenyl)(methylthio)methylene)-1-(methylsulfonyl)-1,2-dihydrobenzo[cd]indole (3q)



(E)-2-((4-chlorophenyl)(phenylselanyl)methylene)benzo[cd]indol-1(2H)-yl(p-tolyl)methanone (3r)



(E)-2-((4-chlorophenyl)(2-methylfuran-3-ylsulfonyl)methylene)-1-tosyl-1,2-dihydrobenzo[cd]indole (4)



(E)-2-(1-(2-methylfuran-3-ylsulfonyl)pentylidene)-1-tosyl-1,2-dihydrobenzo[cd]indole (5)

