

Bio-based methyl coumalate involved

Morita-Baylis-Hillman reaction

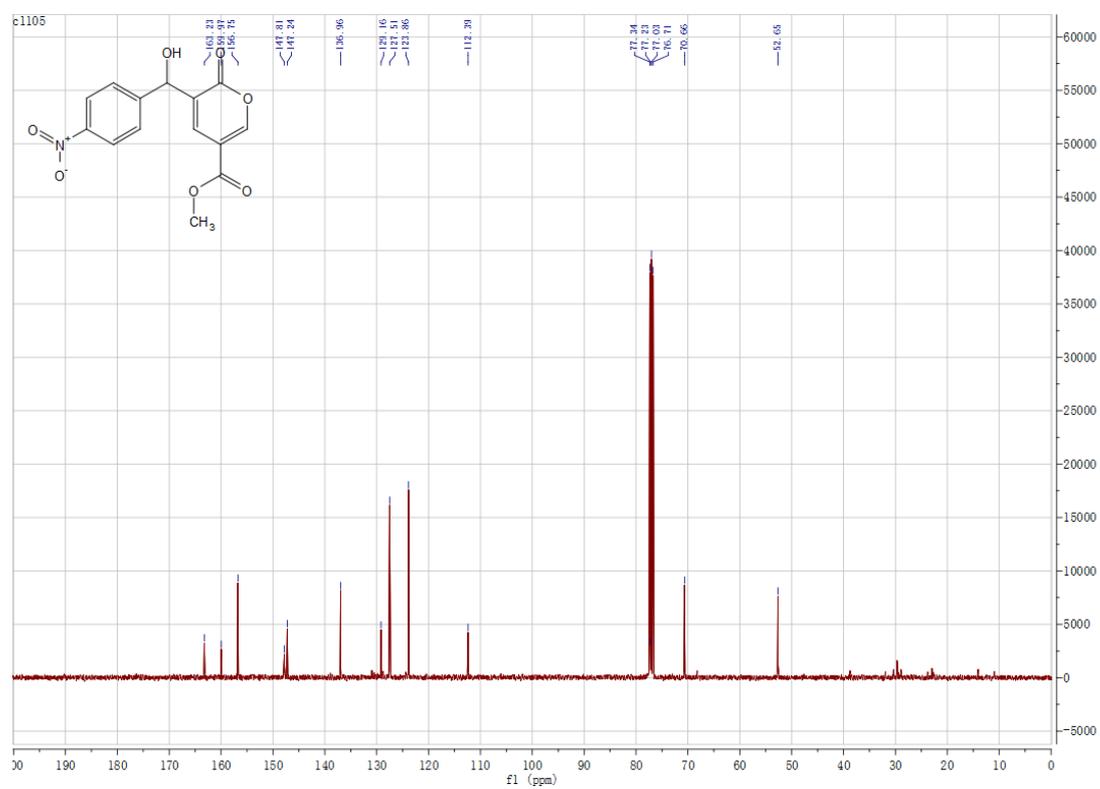
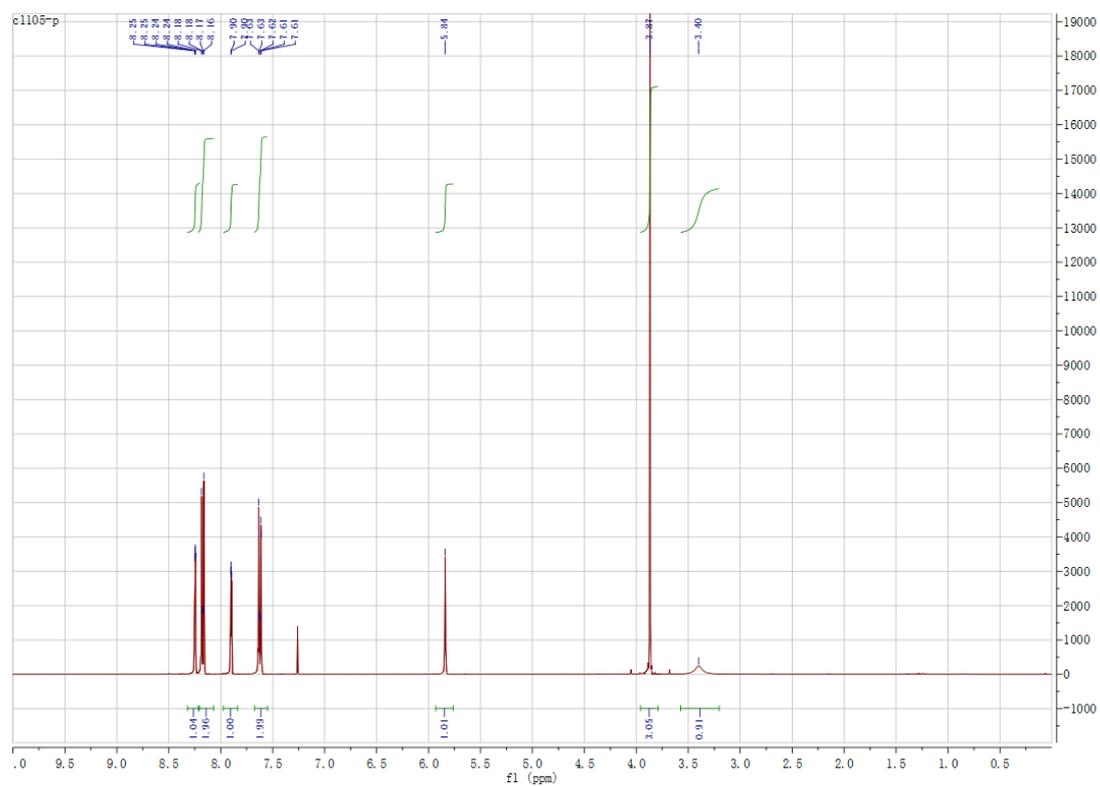
Liang Chang, Serge Thorimbert * and Luc Dechoux *

Sorbonne Université, CNRS, Institut Parisien de Chimie Moléculaire, IPCM, F-75005 Paris, France.

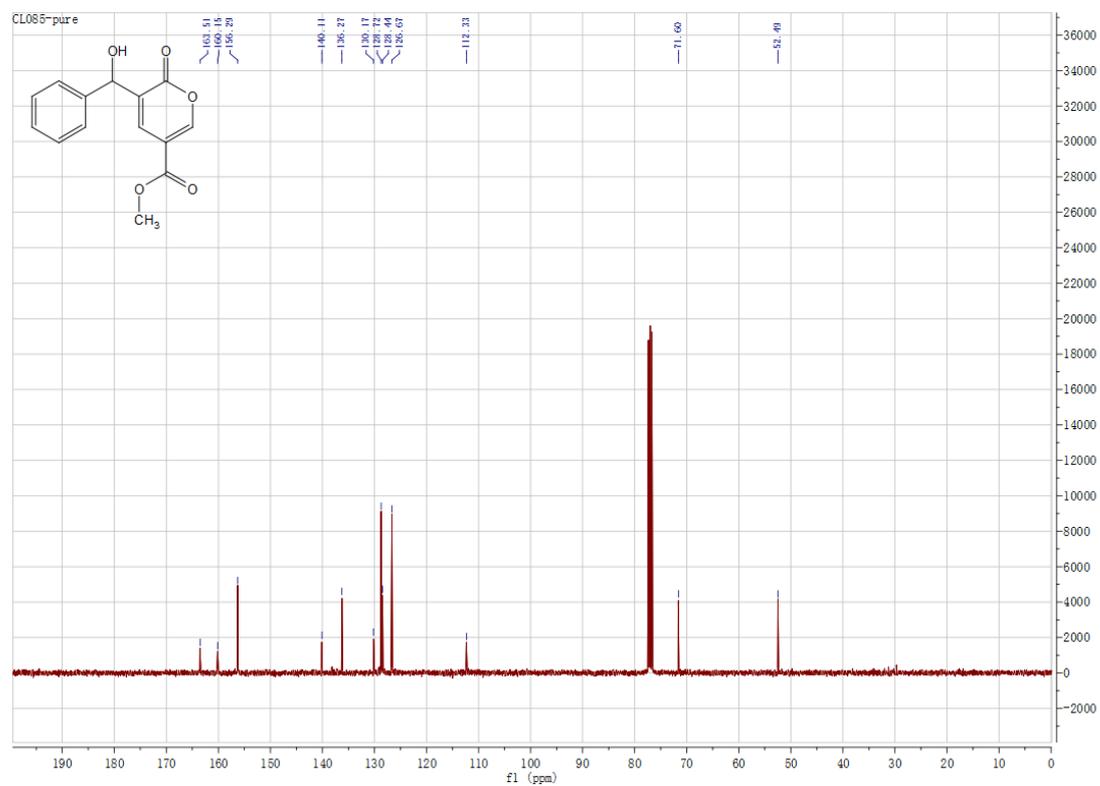
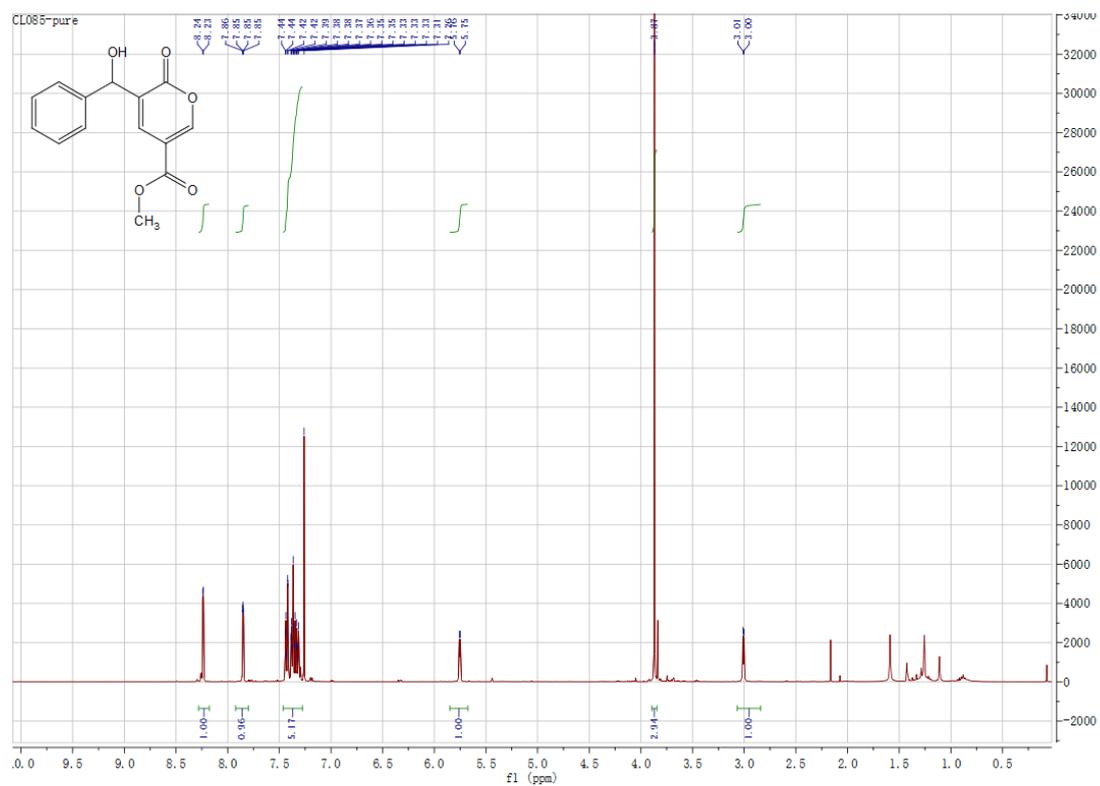
¹H and ¹³C NRM Spectra of Synthesized Compounds

Compounds 2a-l	SI 2 - SI 13
Compounds 2m-u	SI 14 - SI 21
Compound 3a	SI 23
Compound 4a	SI 24
Compounds 5a-b	SI 25 - SI 26
Compounds 6a-b	SI 27 - SI 28

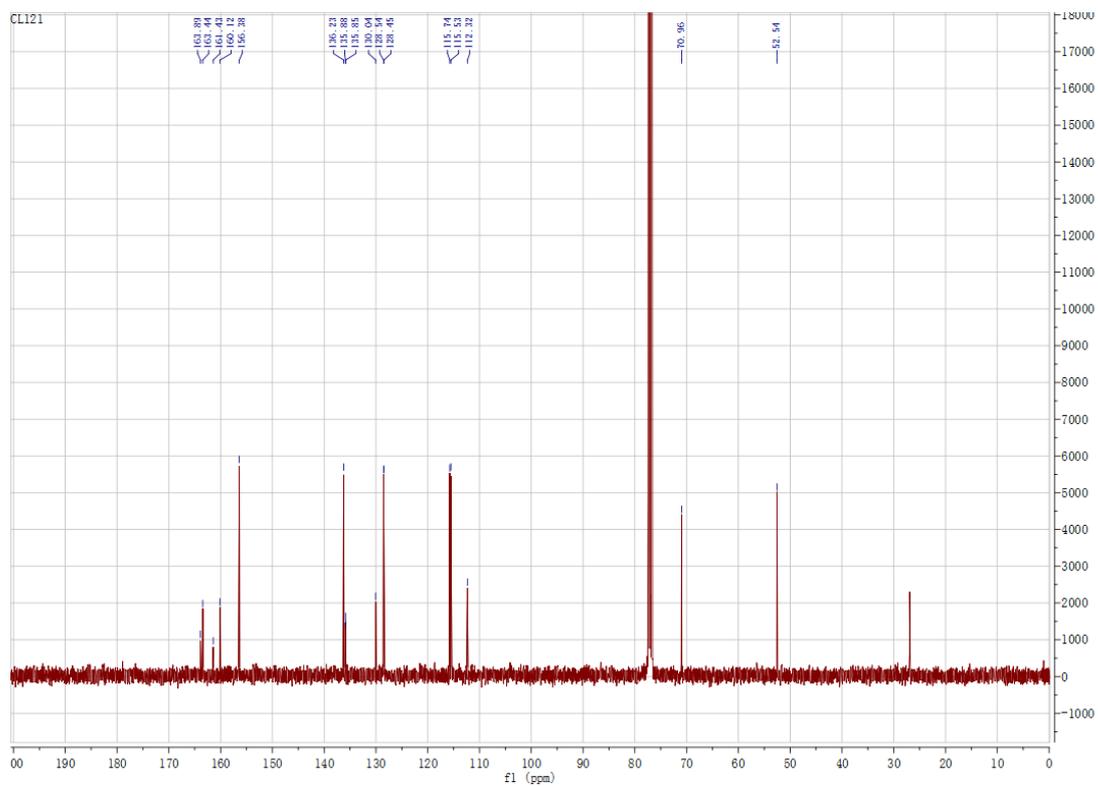
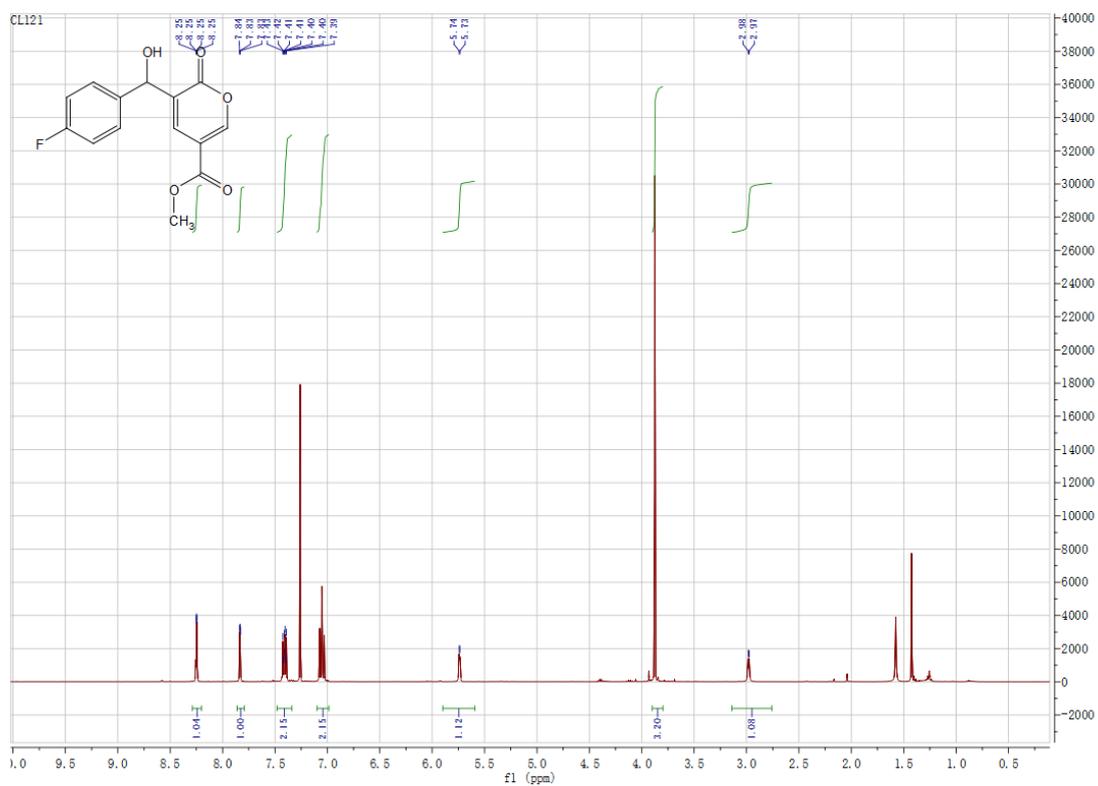
Methyl 3-(hydroxyl (4-nitrophenyl) methyl) -2-oxo-2H-pyran-5-carboxylate (2a):



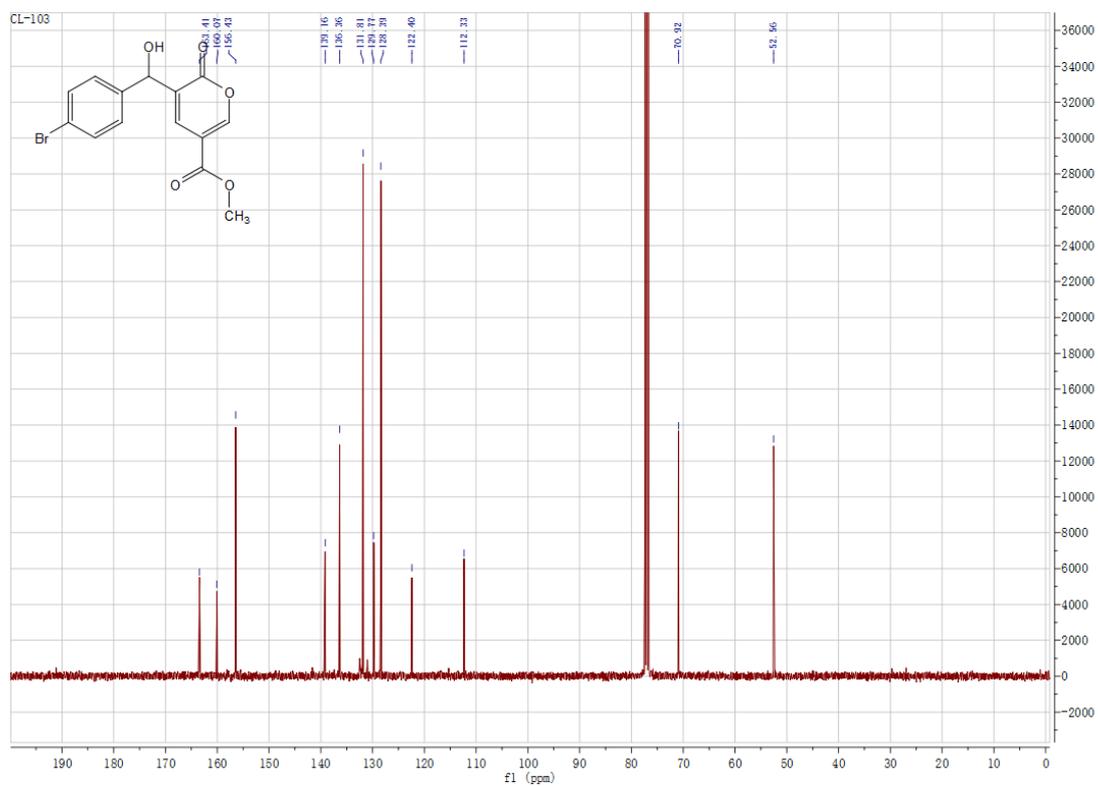
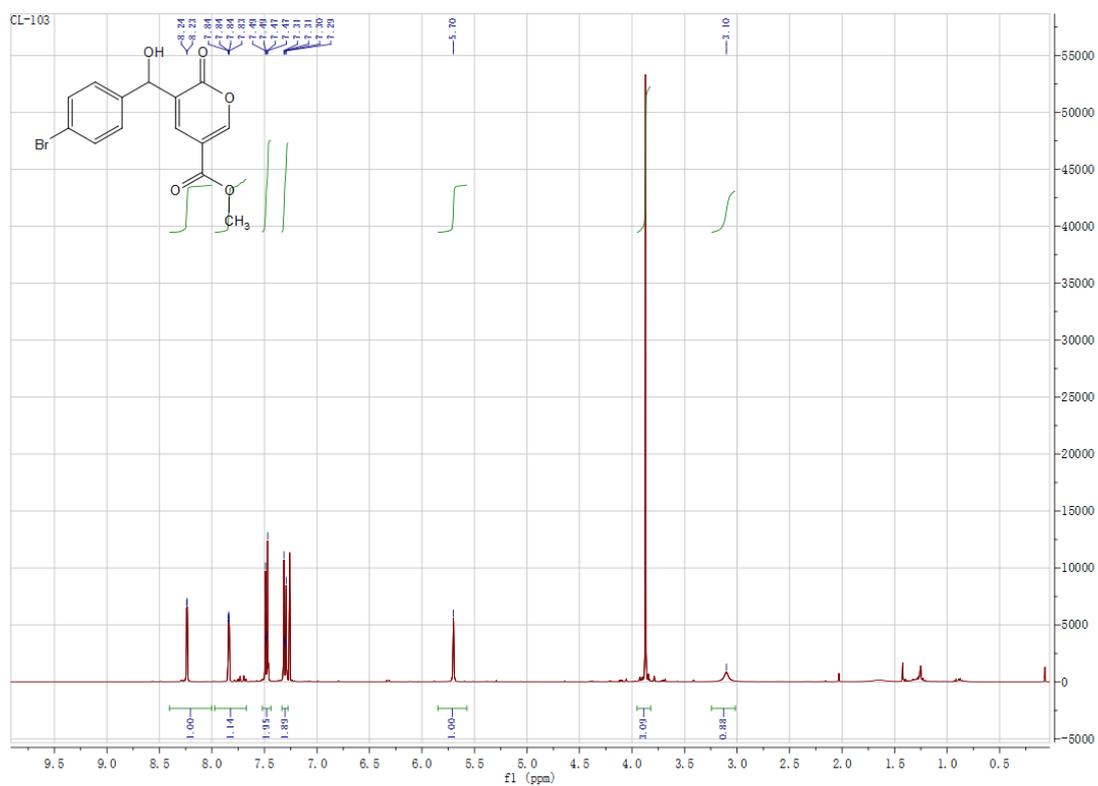
Methyl 3-(hydroxy(phenyl)methyl)-2-oxo-2H-pyran-5-carboxylate (2b):



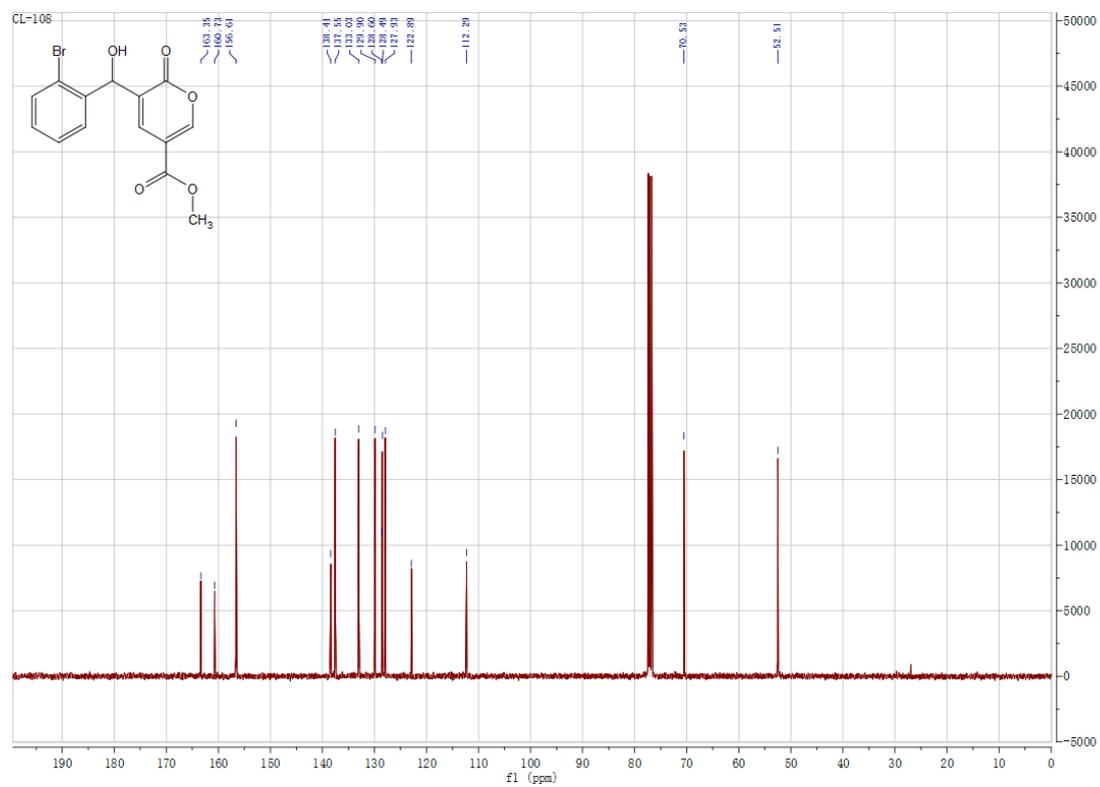
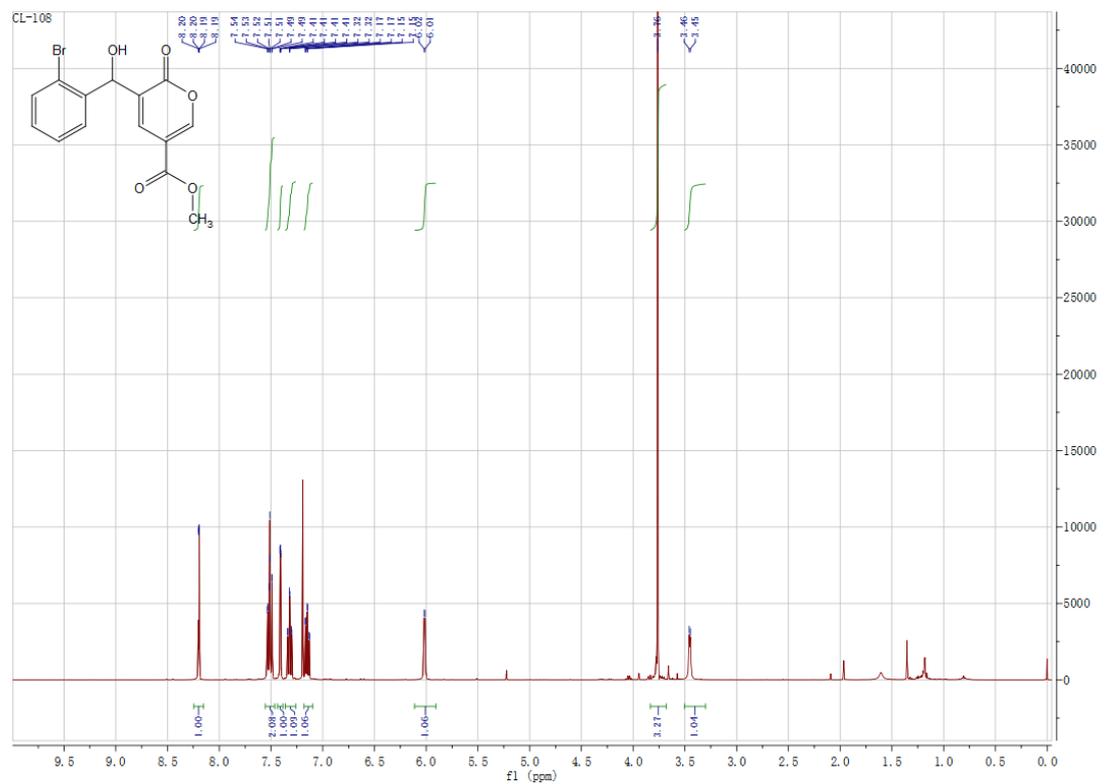
Methyl 3-((4-fluorophenyl)(hydroxy) methyl)-2-oxo-2H-pyran-5-carboxylate (2c):



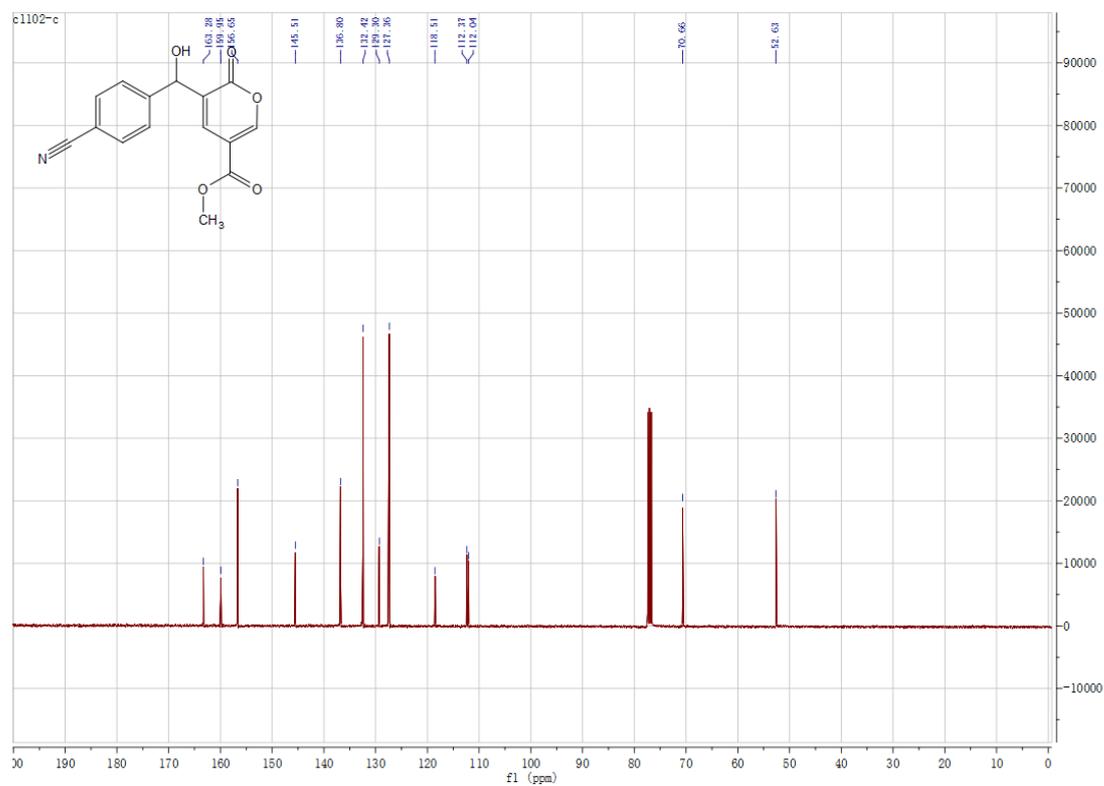
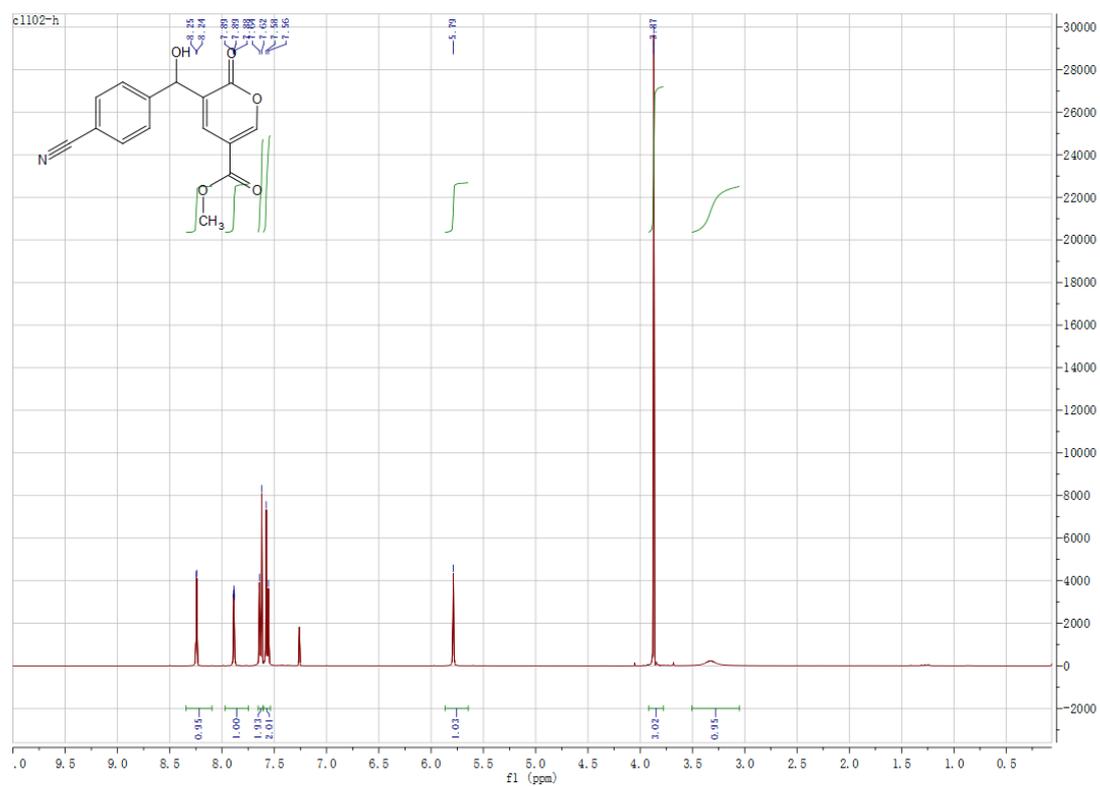
Methyl 3-((4-bromophenyl)(hydroxy)methyl)-2-oxo-2H-pyran-5-carboxylate (2d):



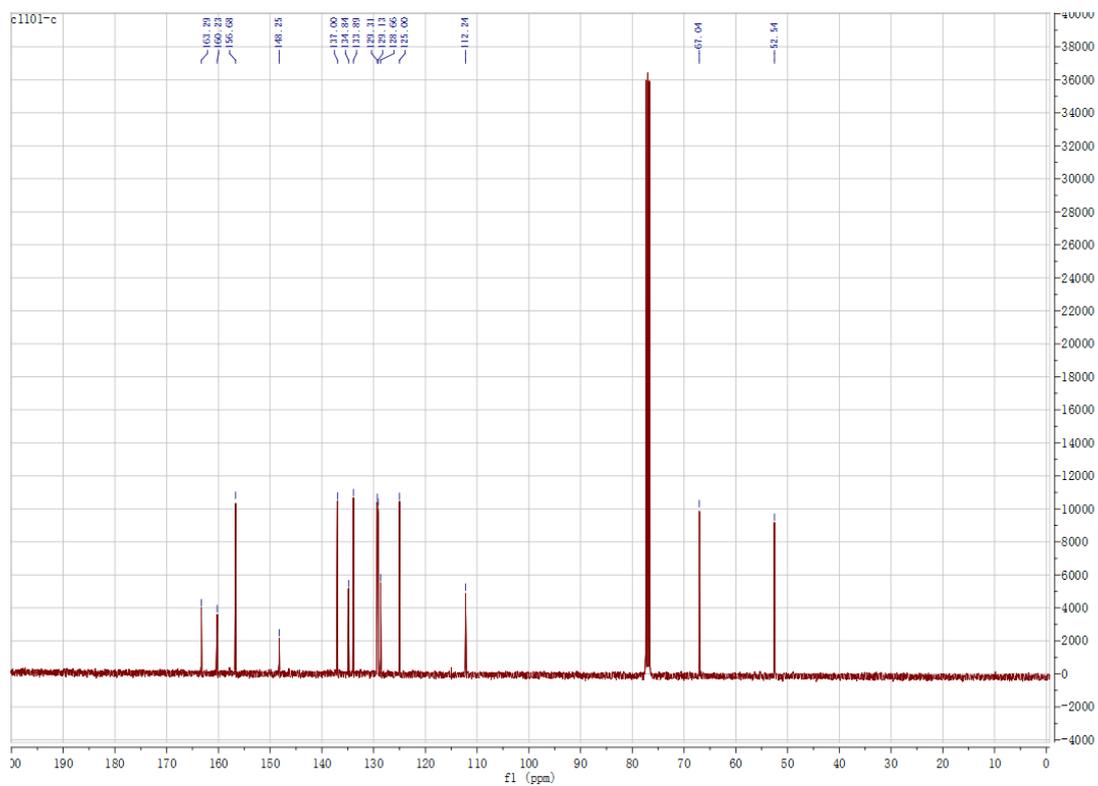
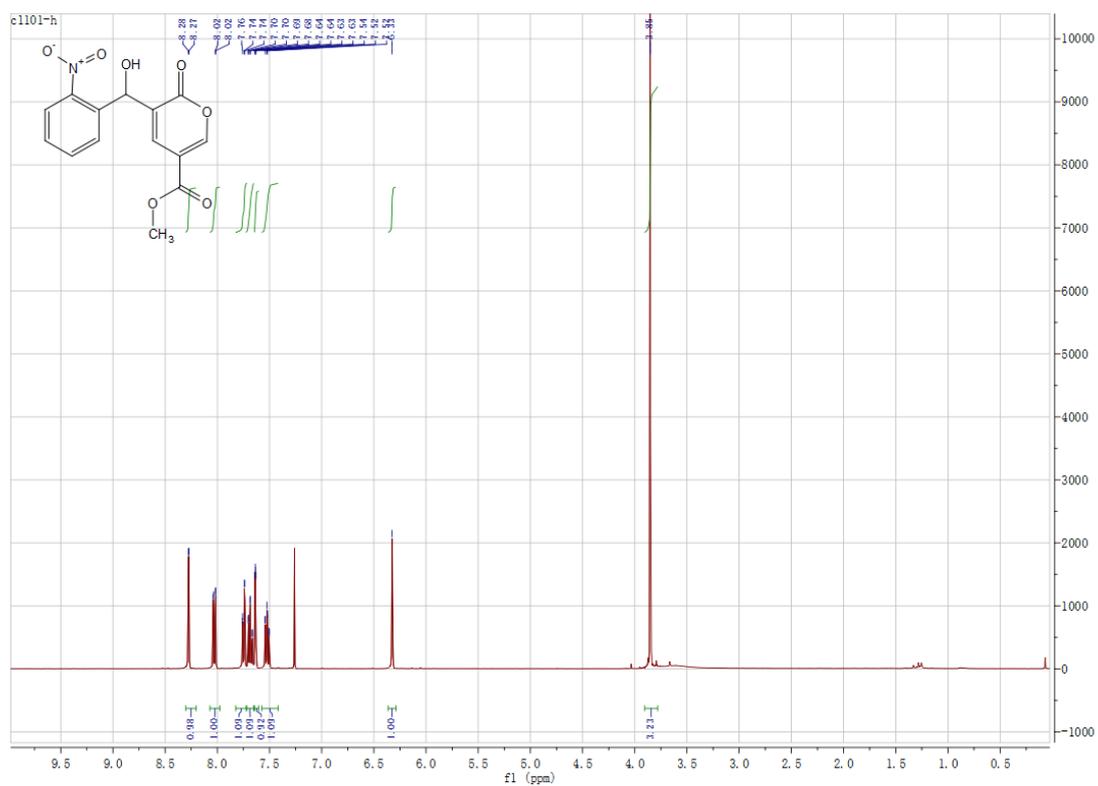
Methyl 3-((2-bromophenyl) (hydroxy)methyl)-2-oxo-2H-pyran-5-carboxylate (2e):



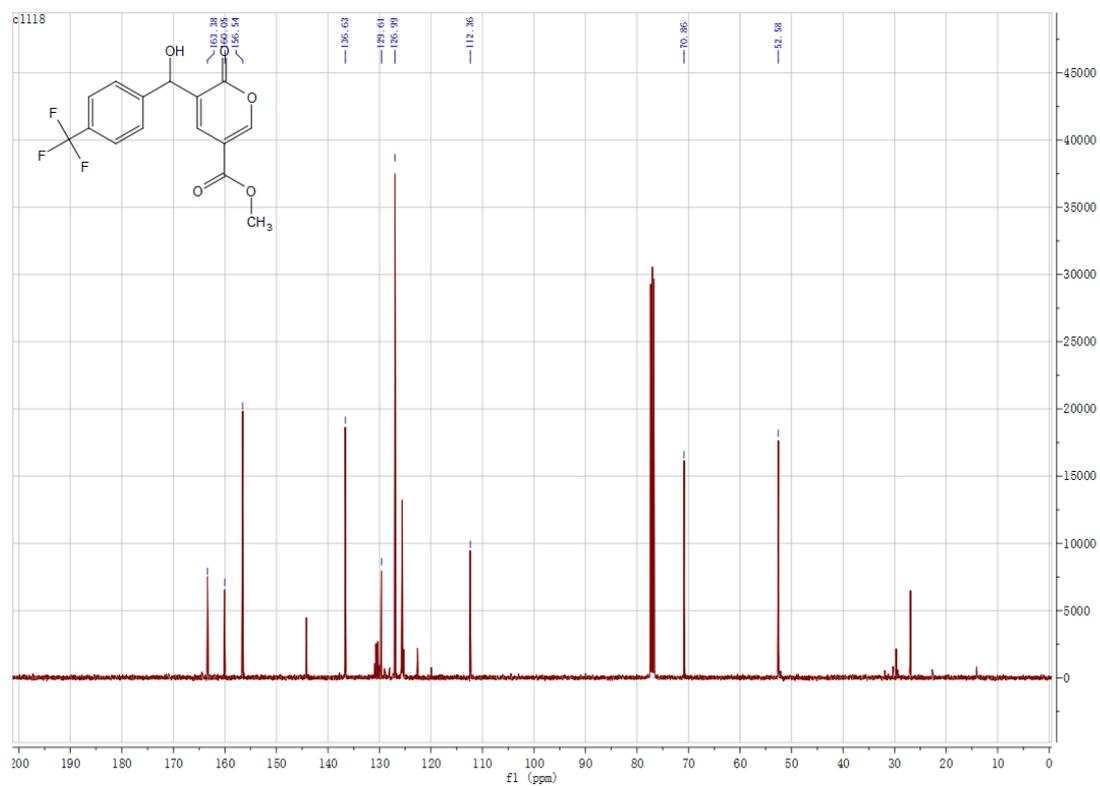
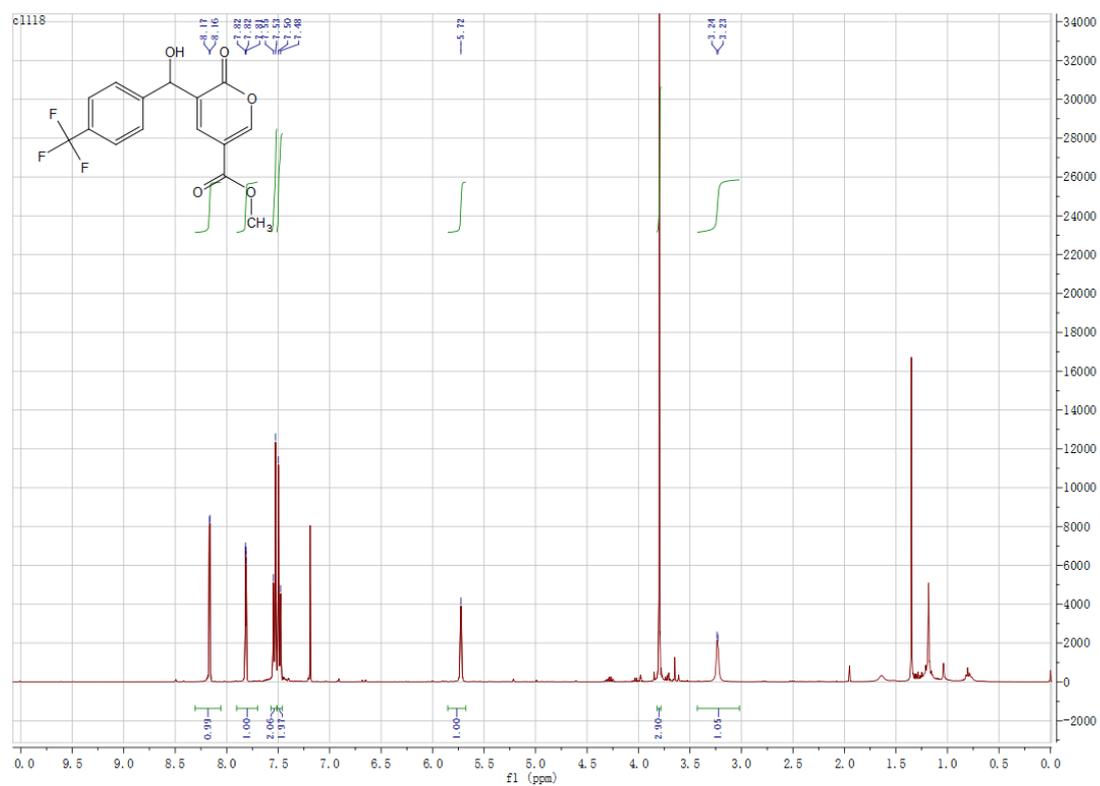
Methyl 3-((4-cyanophenyl)(hydroxy)methyl)-2-oxo-2H-pyran-5-carboxylate (2f):



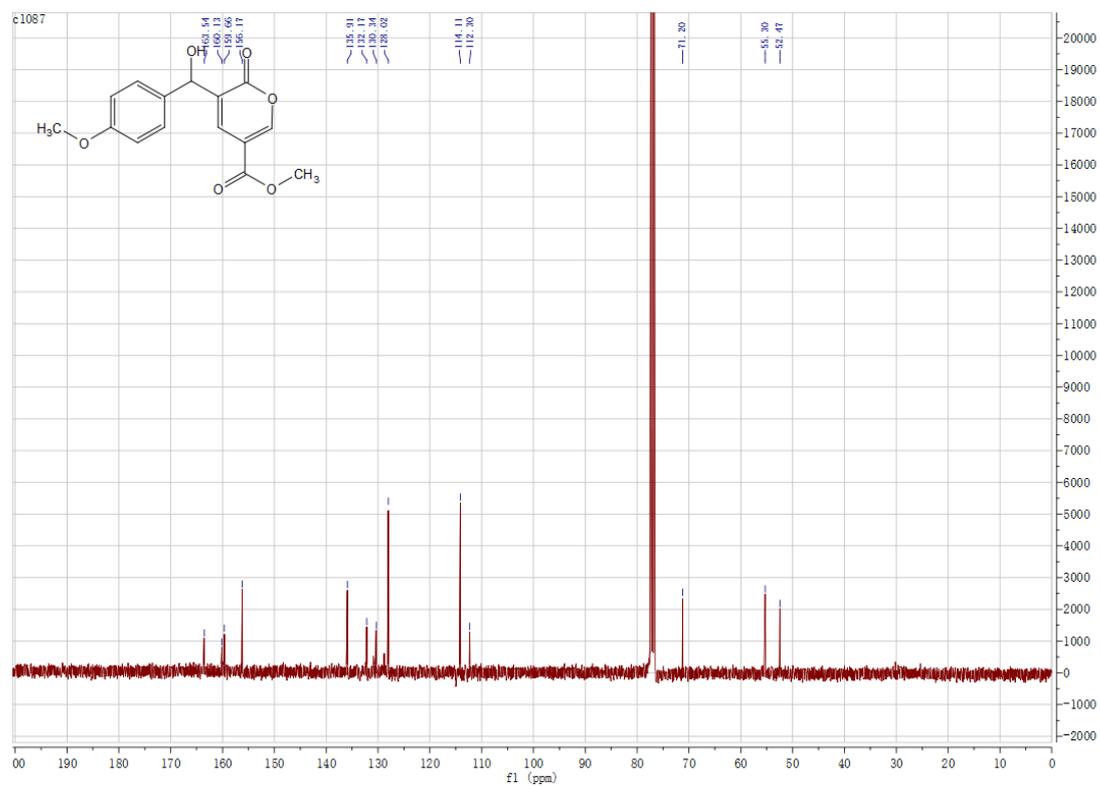
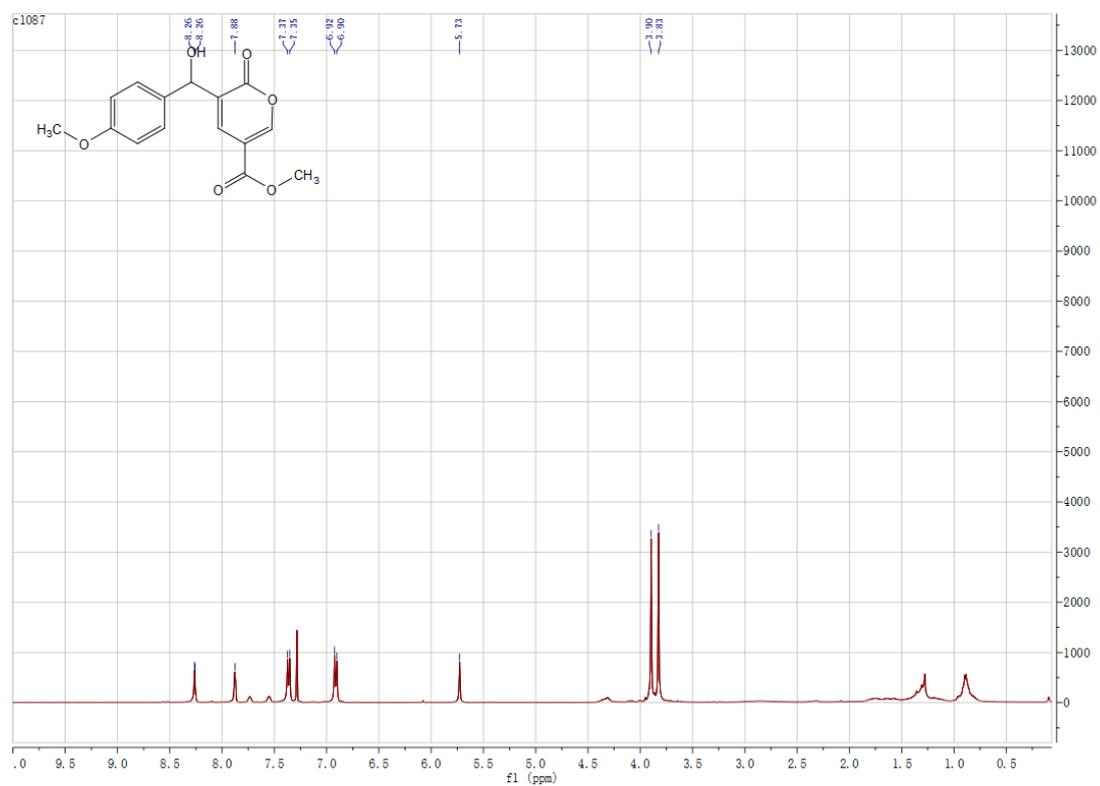
Methyl 3-(hydroxyl (2-nitrophenyl) methyl)-2-oxo-2H-pyran-5-carboxylate (2g):



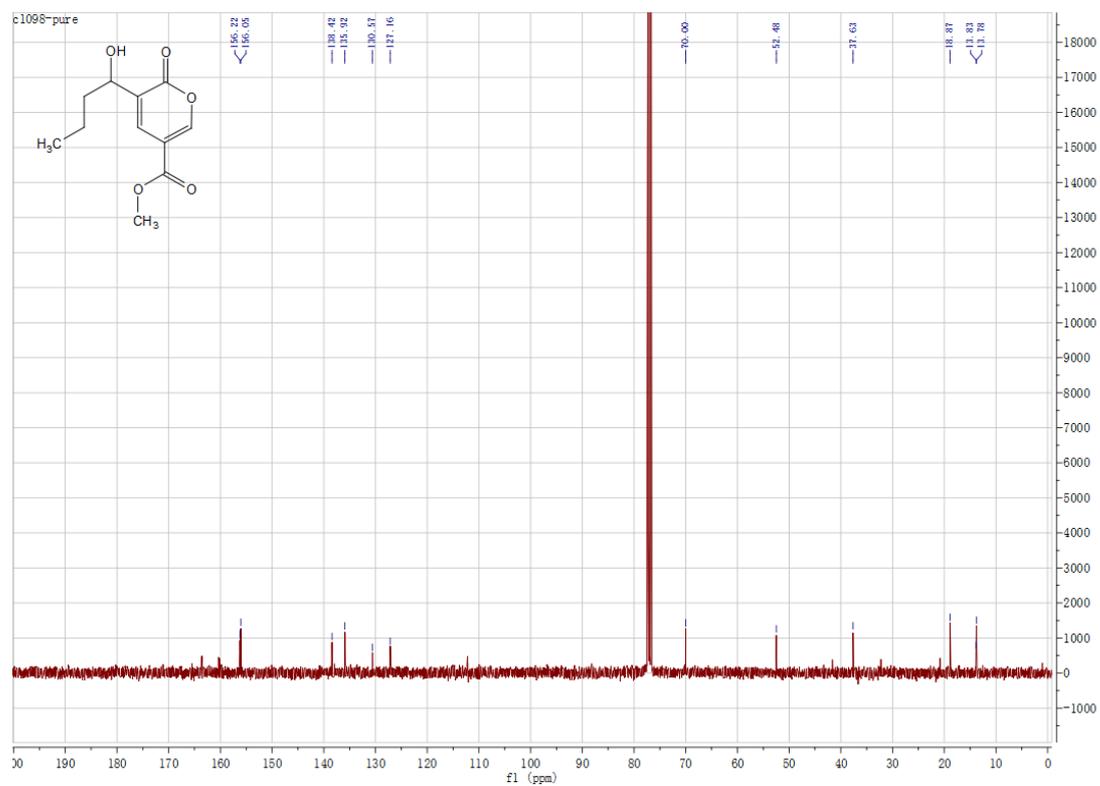
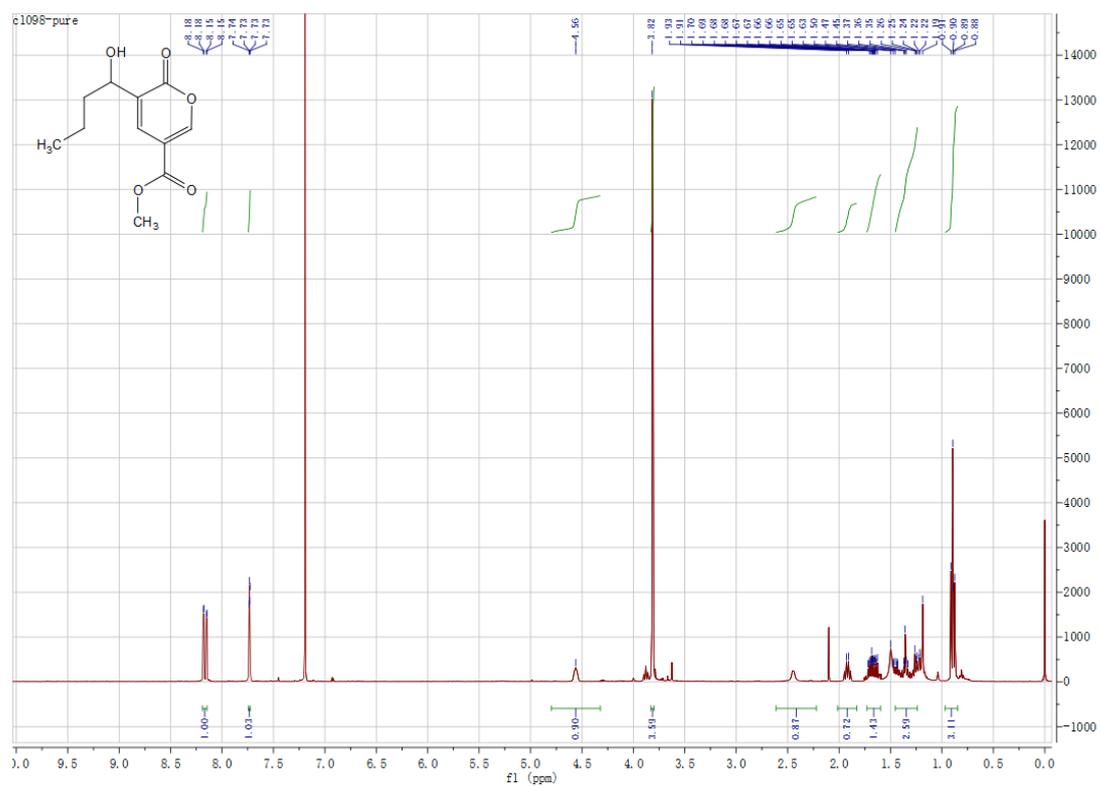
Methyl 3-(hydroxy(4-(trifluoromethyl)phenyl) methyl)-2-oxo-2H-pyran-5-carboxylate (2h):



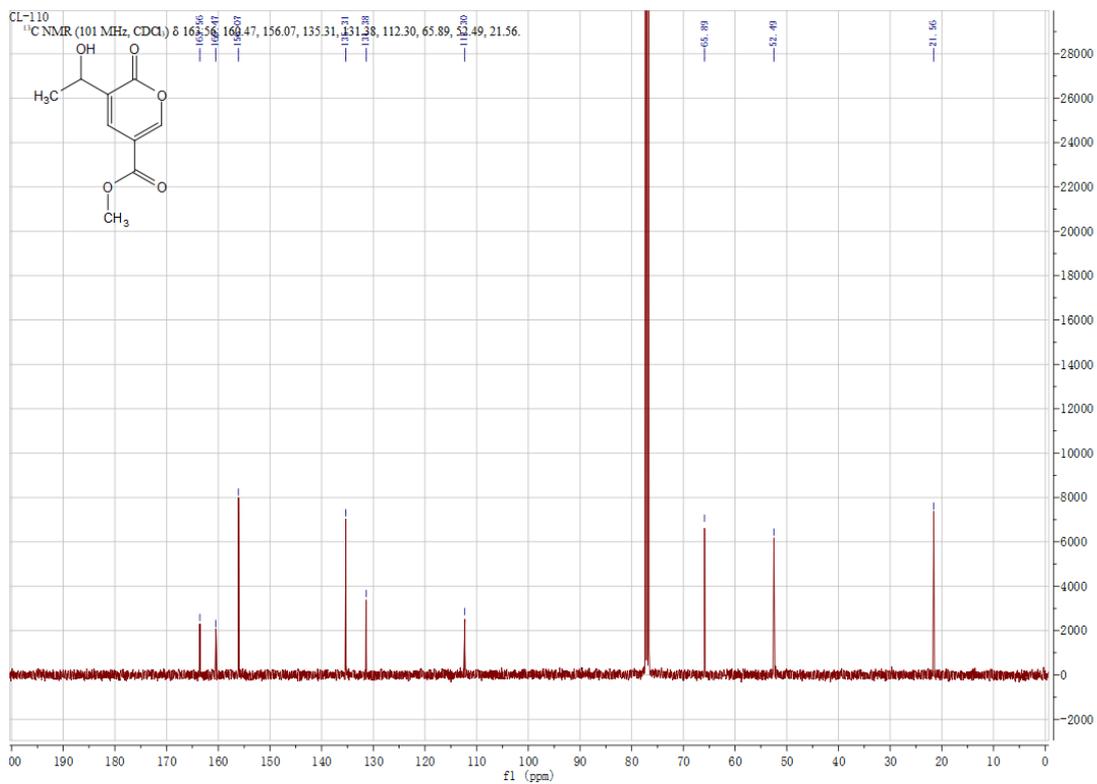
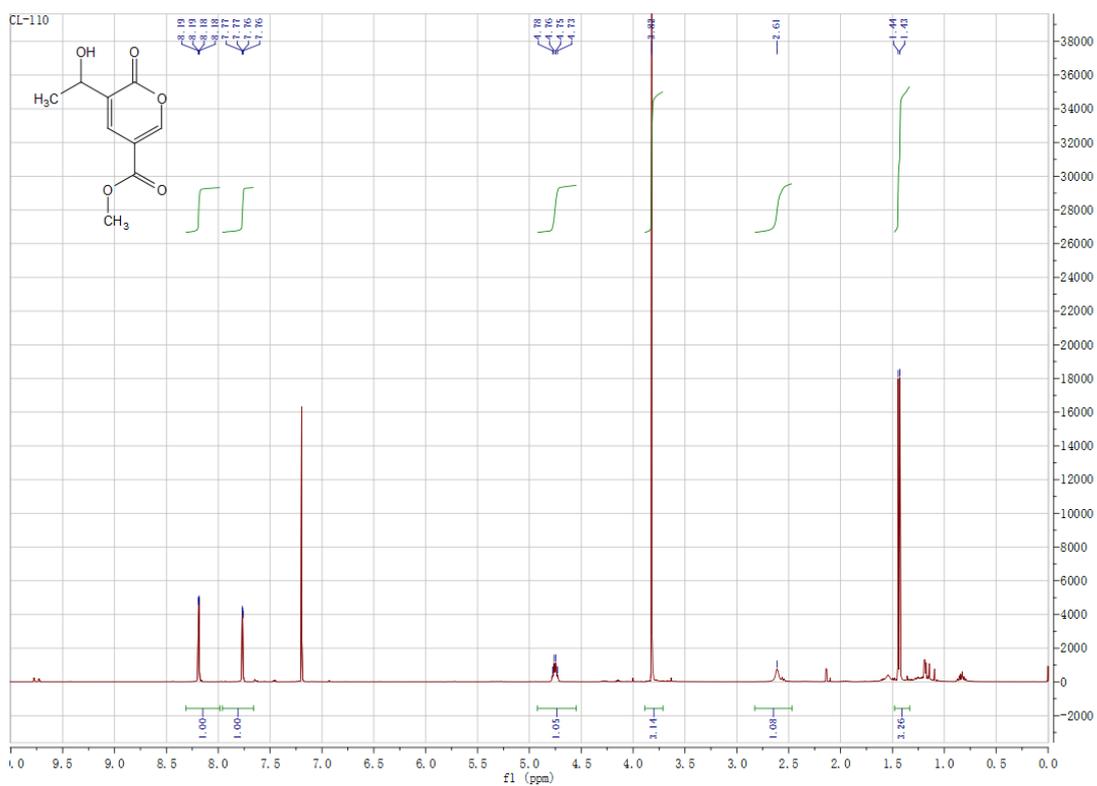
Methyl 3-(1-hydroxybutyl) -2-oxo-2H-pyran -5-carboxylate (2j):



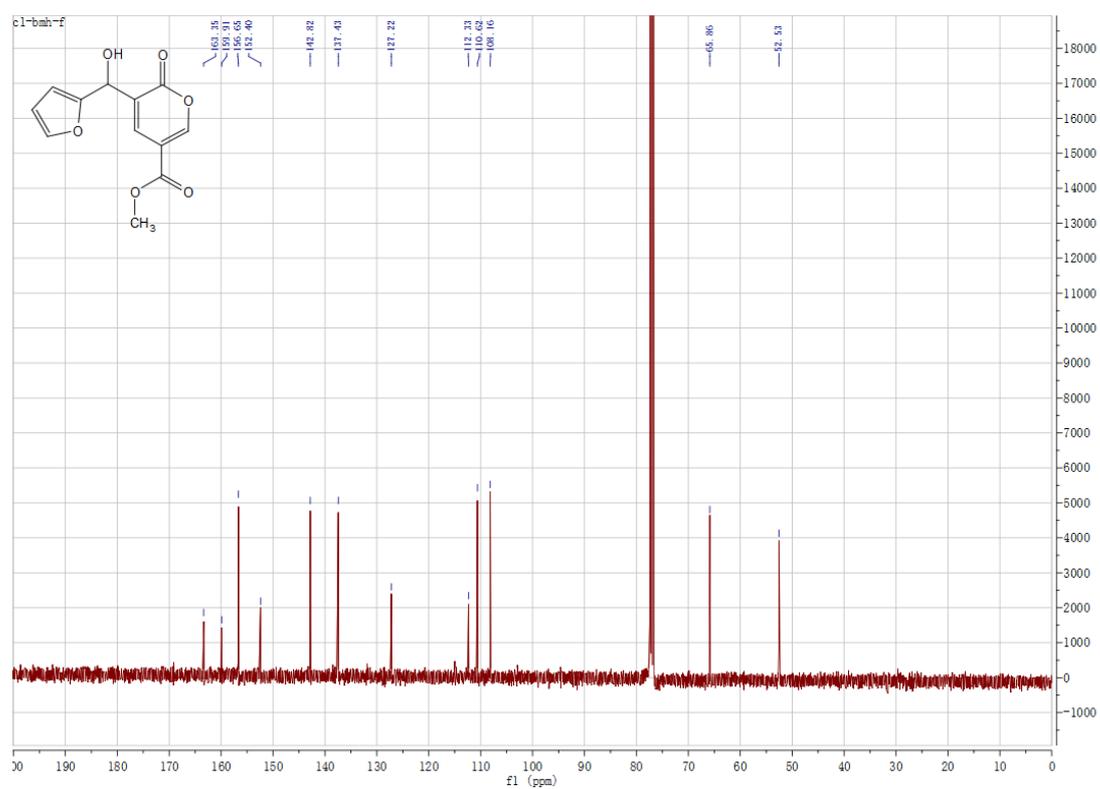
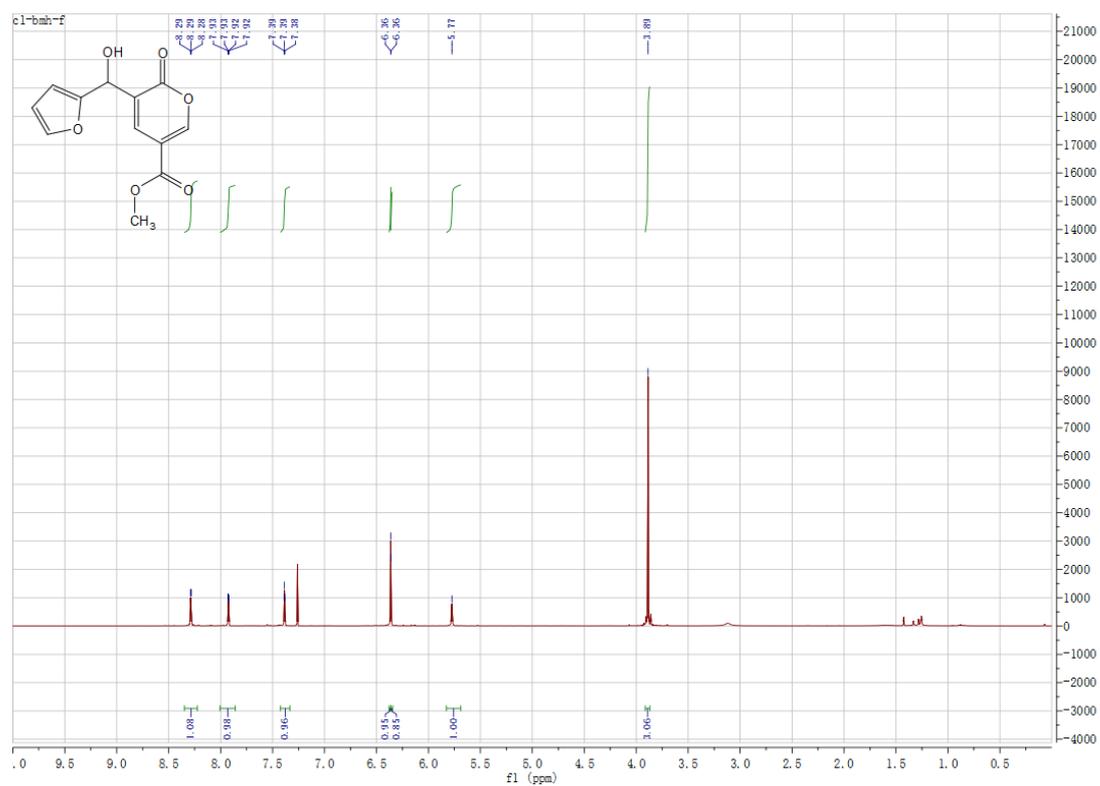
Methyl 3-(1-hydroxybutyl) -2-oxo-2H-pyran -5-carboxylate (2j):



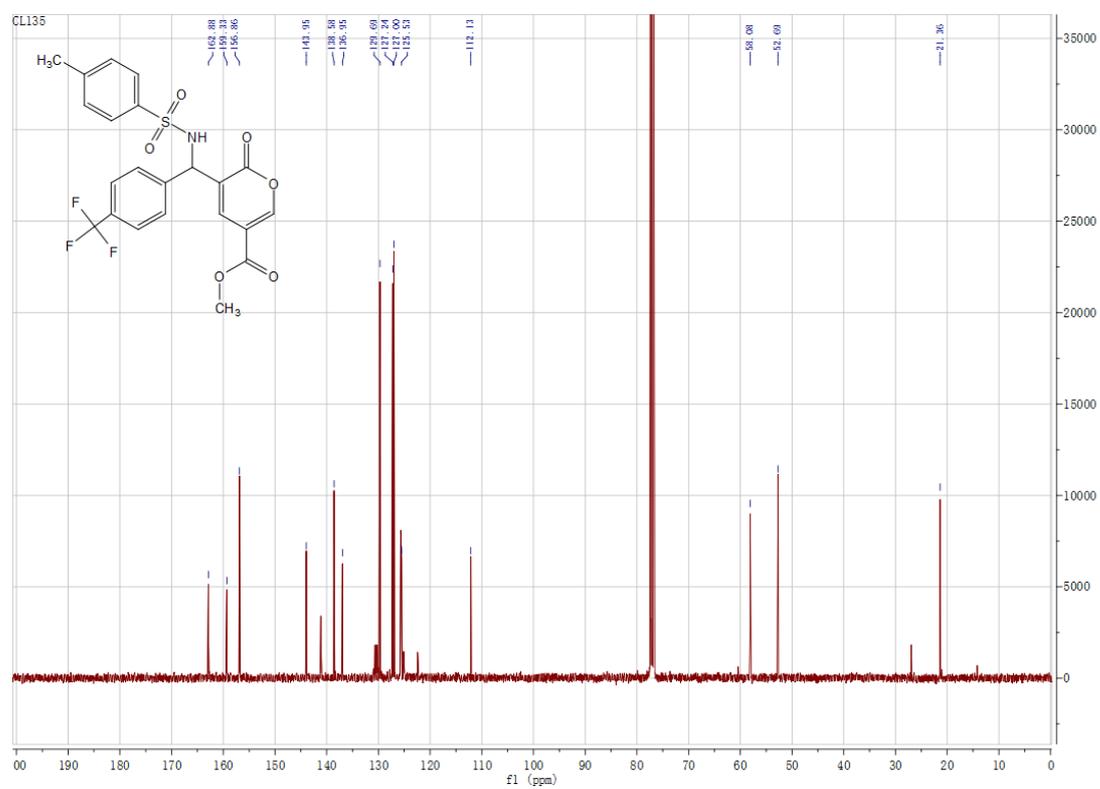
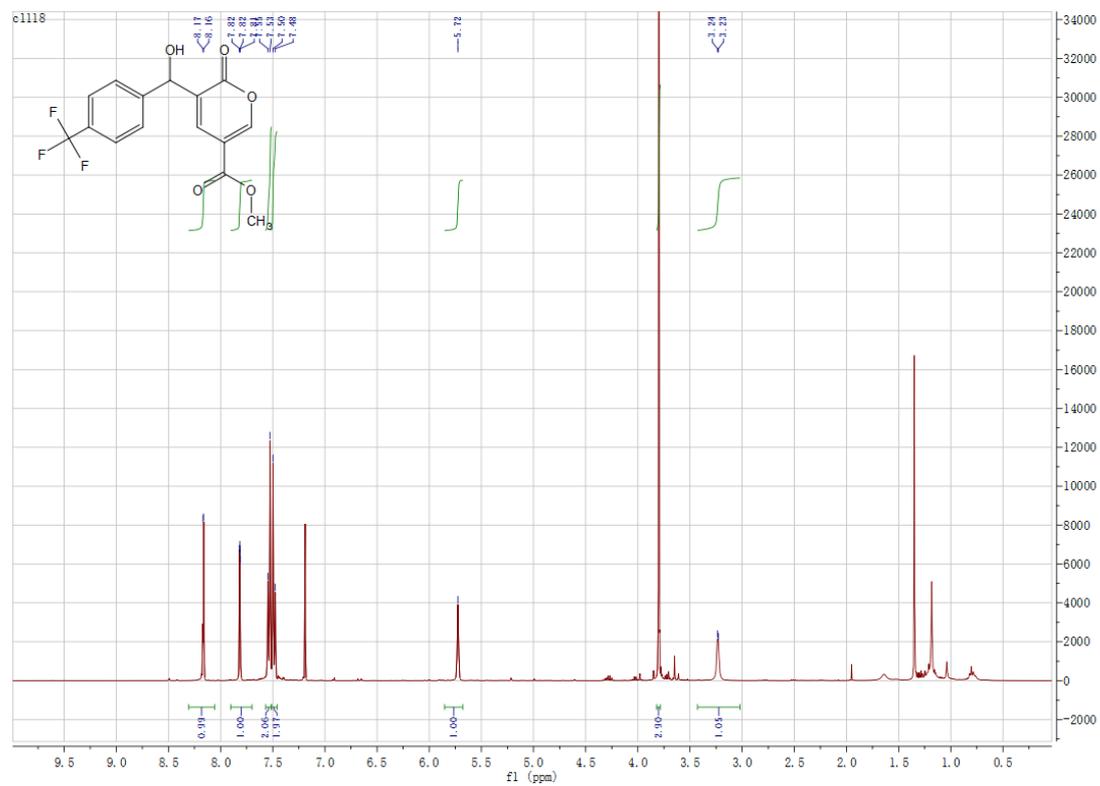
Methyl 3-(1-hydroxyethyl) -2-oxo-2H- pyran-5-carboxylate (2k):



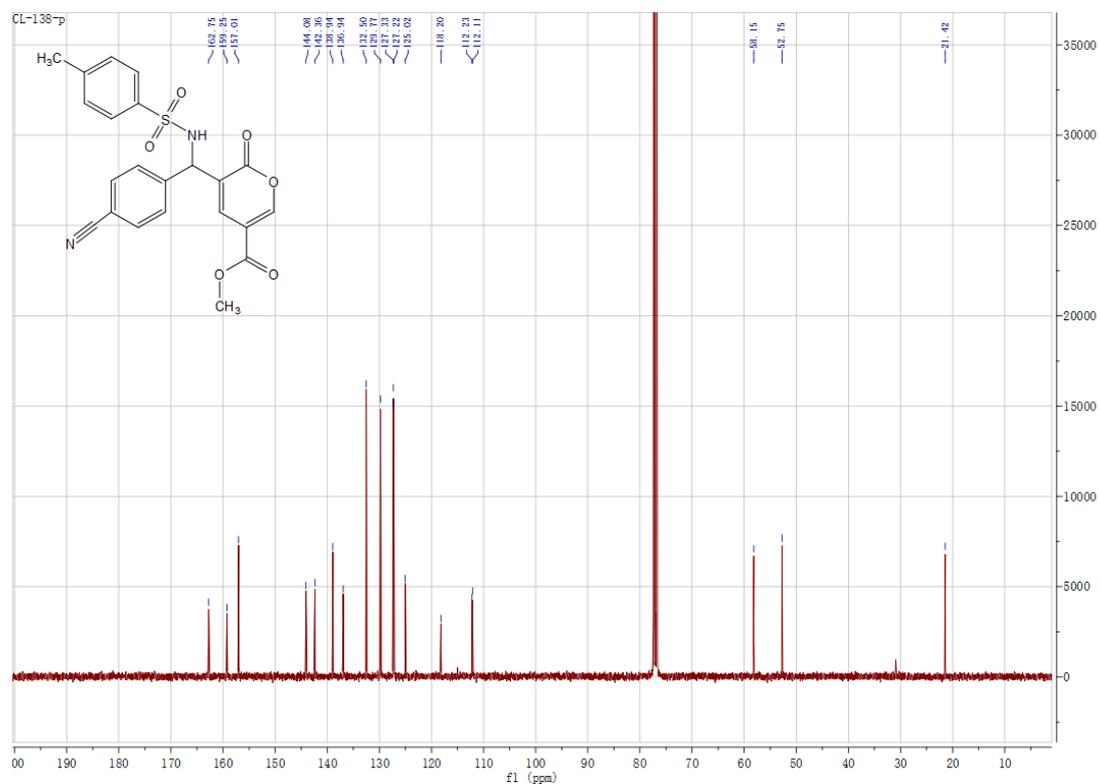
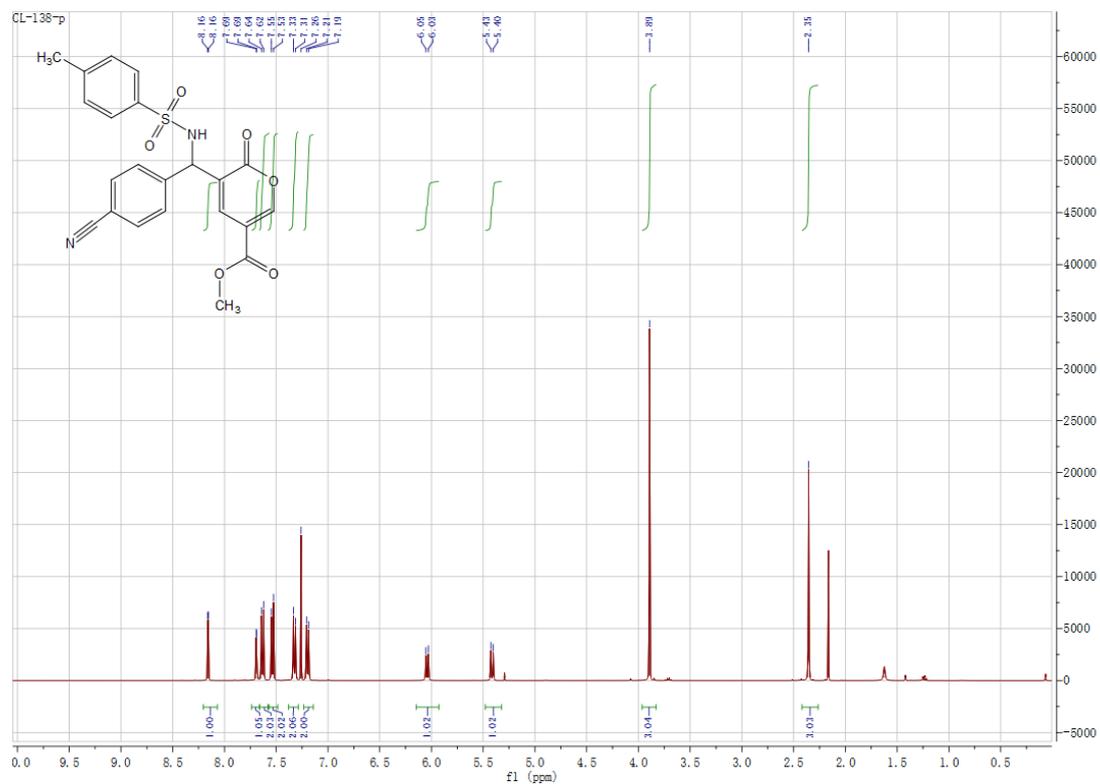
Methyl 3-(furan-2-yl (hydroxy)methyl)-2-oxo-2H-pyran-5-carboxylate (2I):



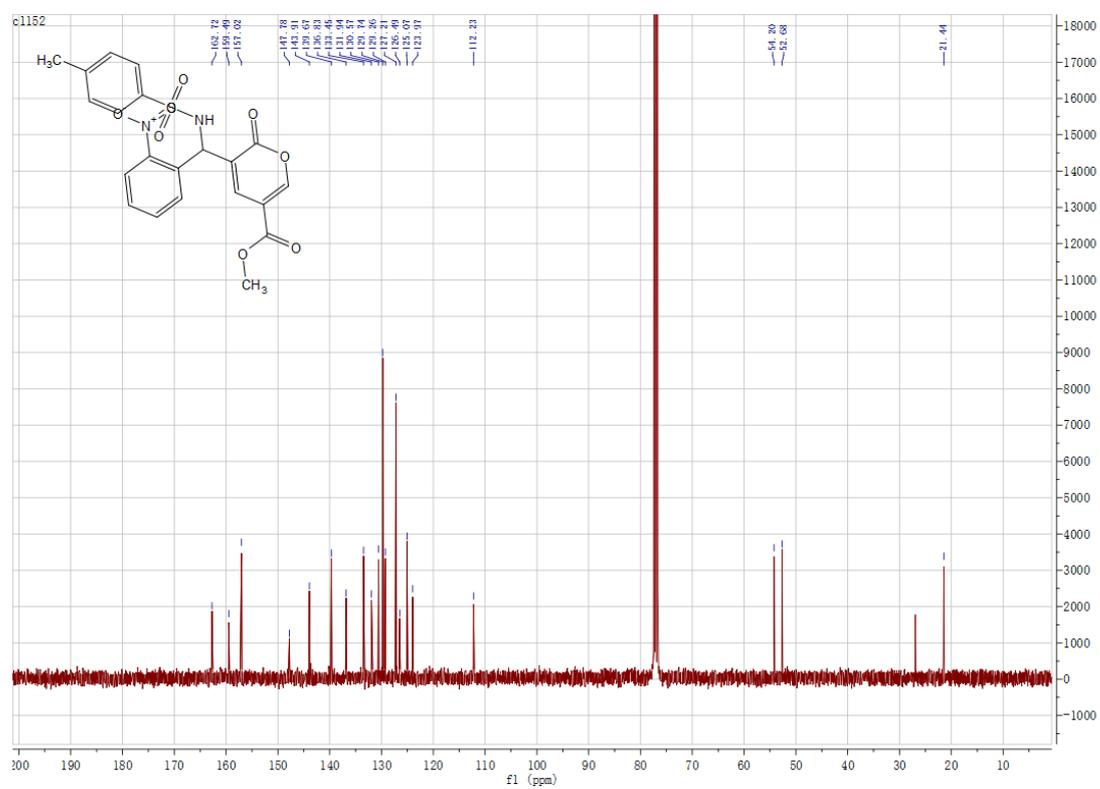
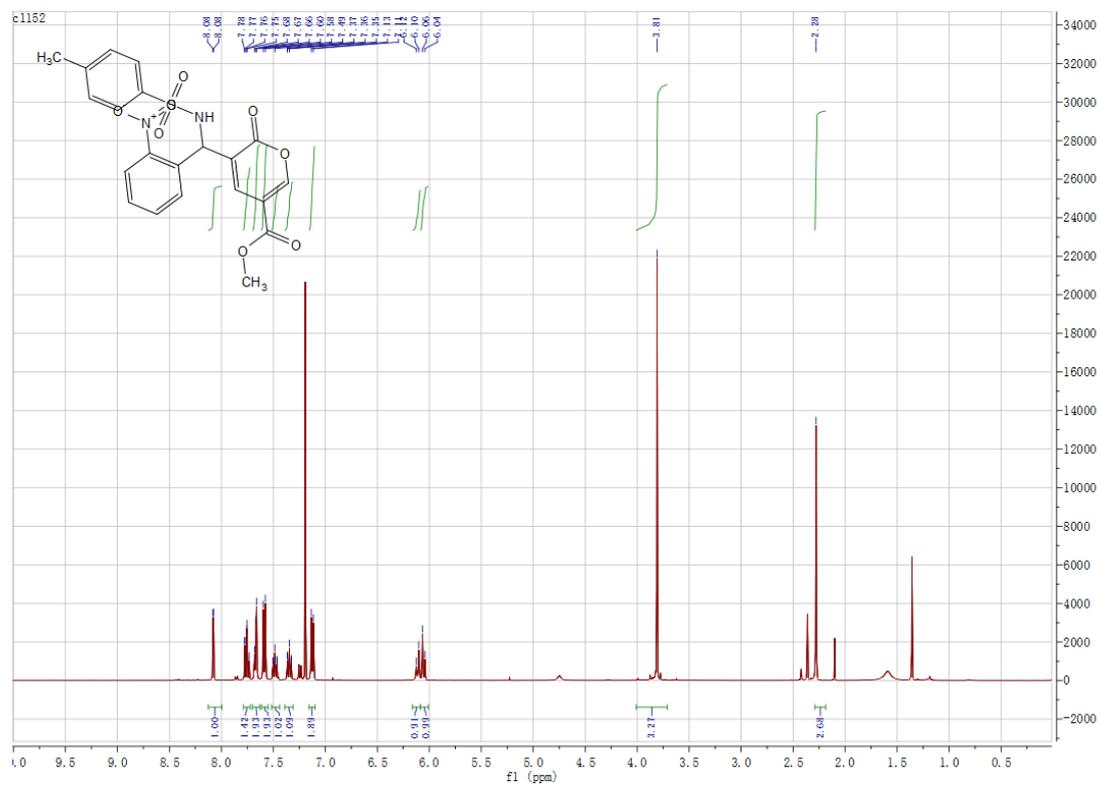
Methyl 3-((4-methylphenylsulfonamido)(4-(trifluoromethyl)phenyl)methyl)-2-oxo-2H-pyran-5-carboxylate (2n):



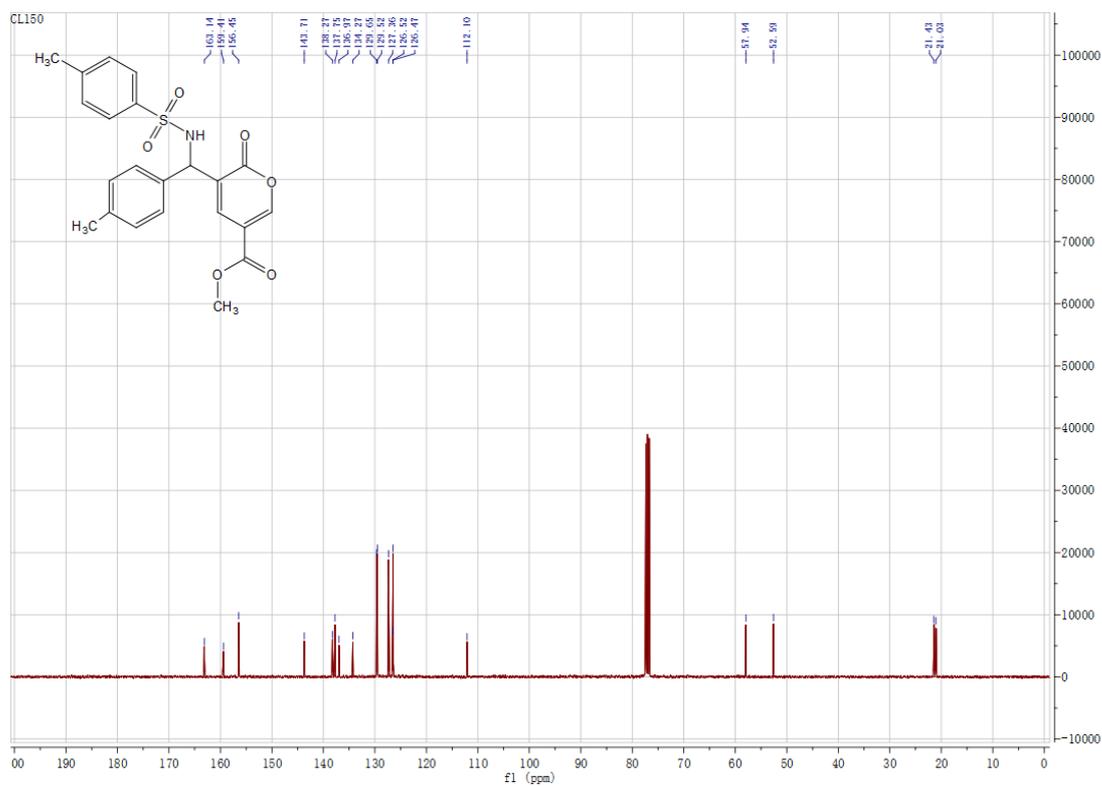
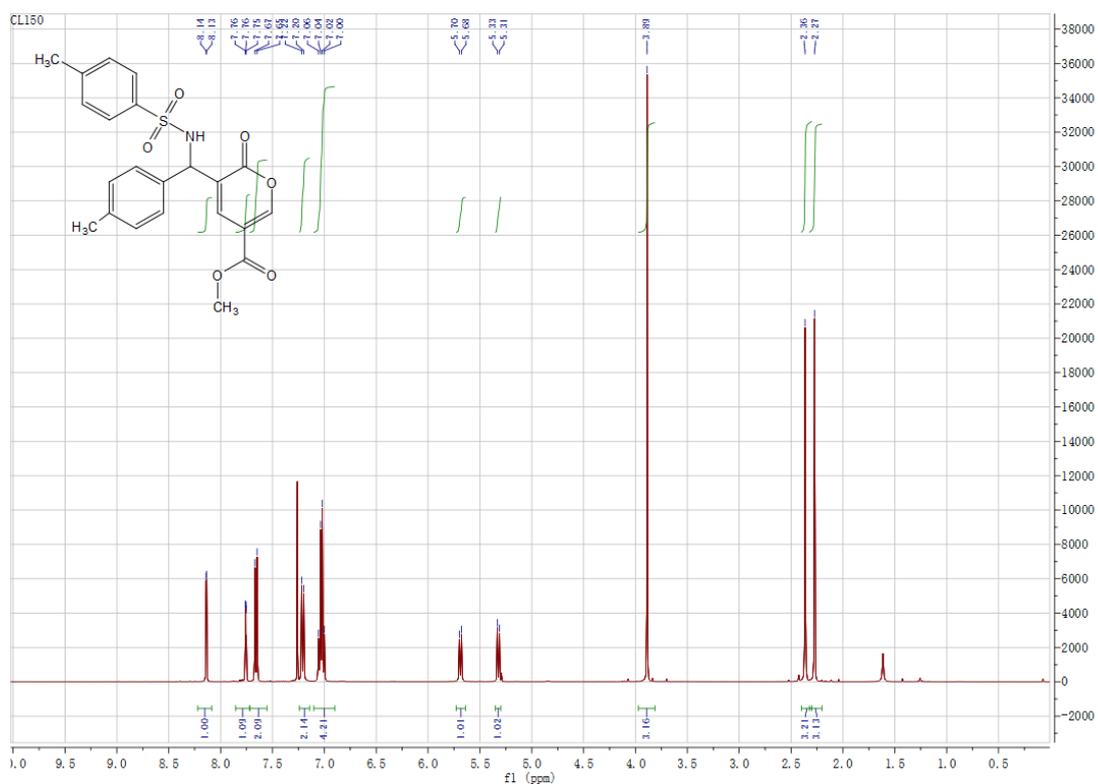
Methyl 3-((4-cyanophenyl) (4-methylphenylsulfonamido) methyl) -2-oxo-2H-pyran-5-carboxylate (2p):



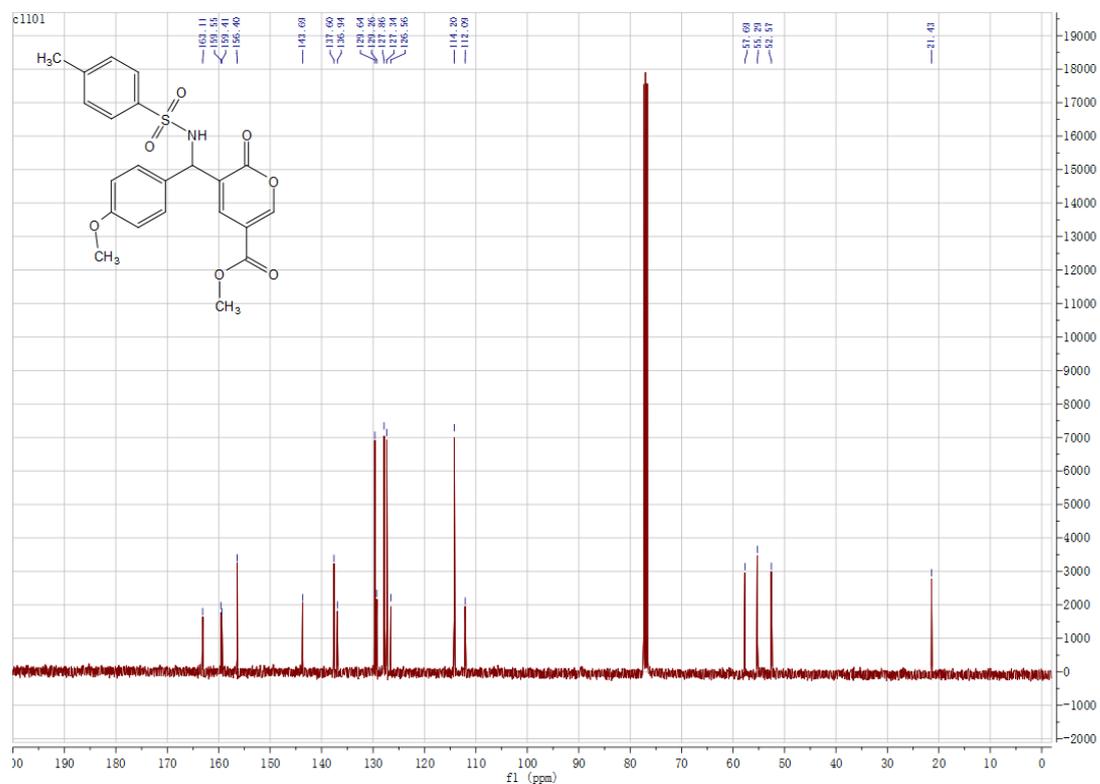
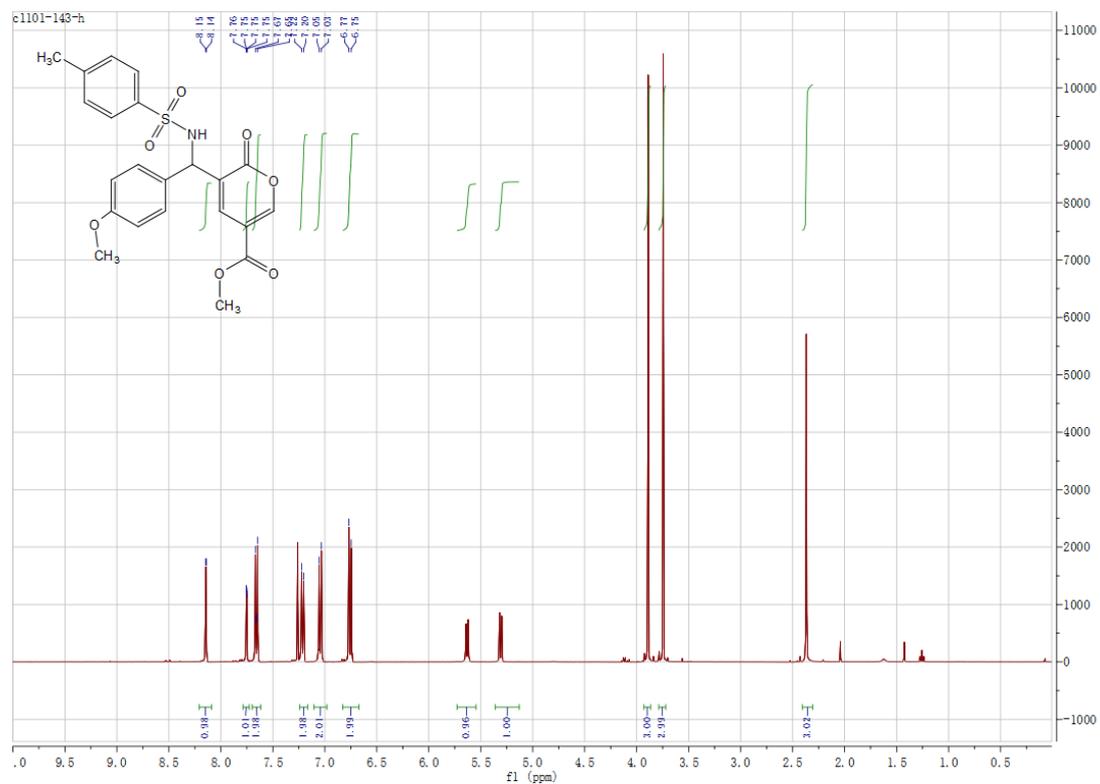
Methyl 3-((4-methylphenylsulfonamido) (2-nitrophenyl)methyl)- 2-oxo-2H-pyran-5-carboxylate (2q):



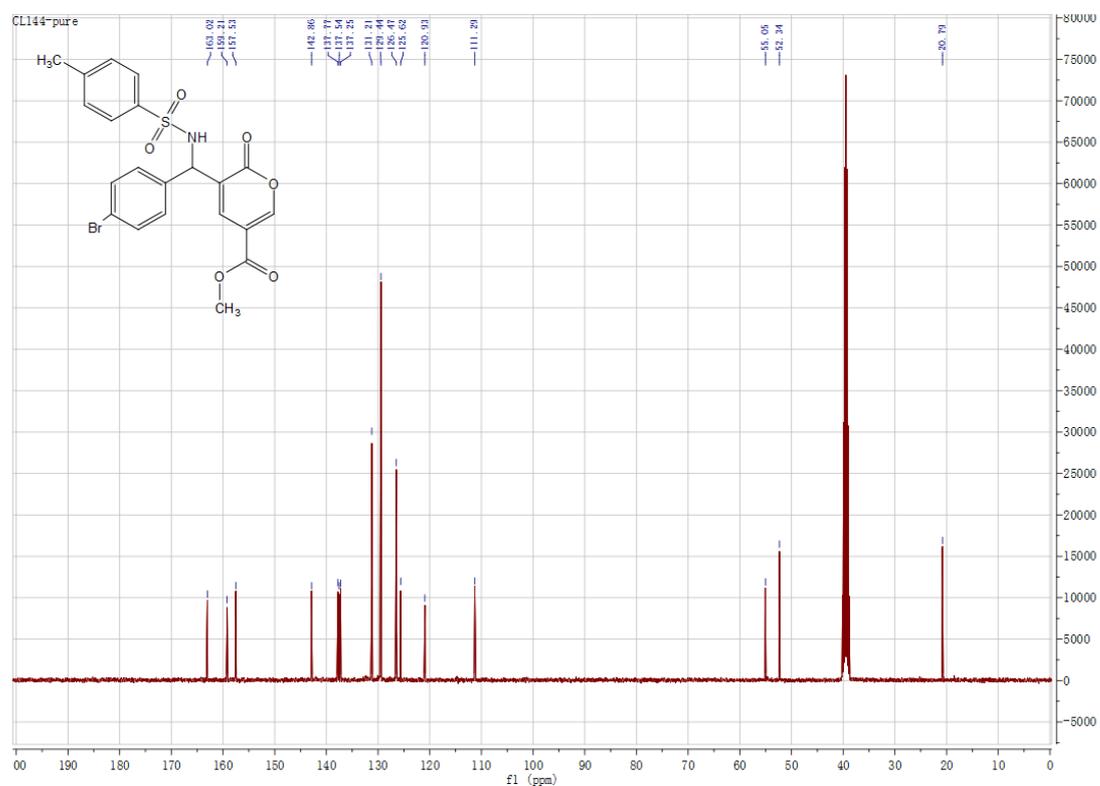
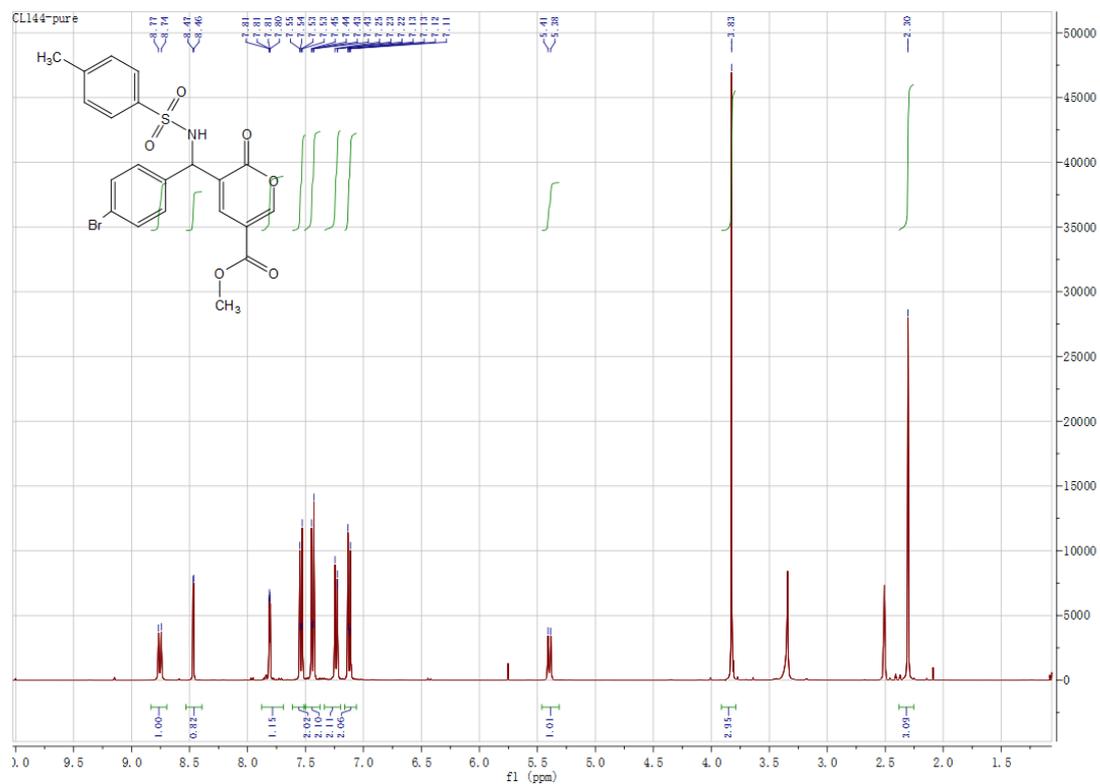
Methyl 3-((4-methylphenylsulfonamido) (p-tolyl)methyl)-2-oxo-2H-pyran-5-carboxylate (2r)



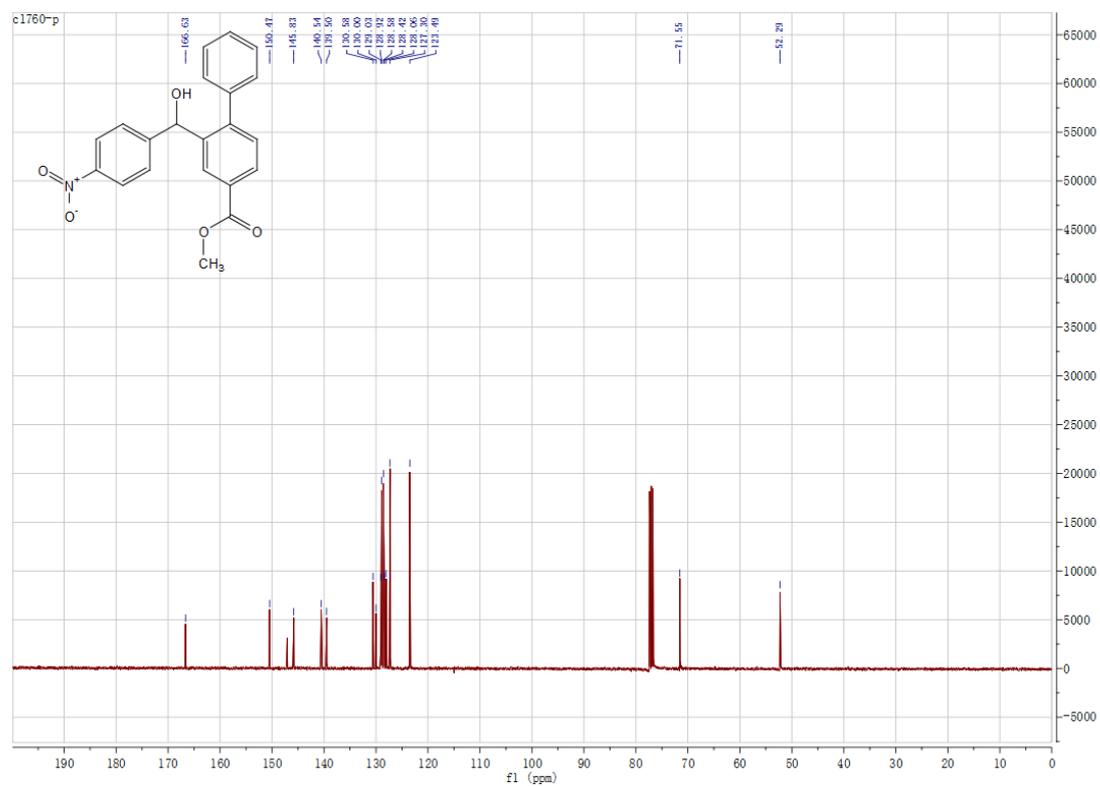
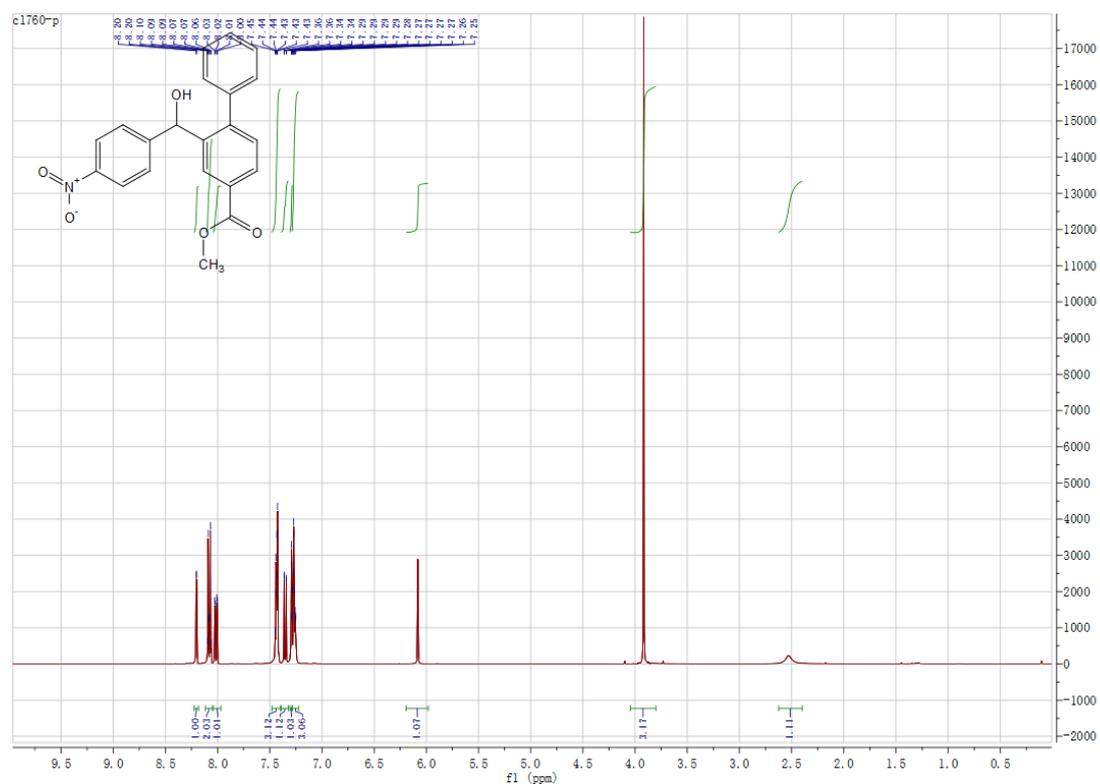
Methyl 3-((4-methoxyphenyl) (4-methylphenylsulfonamido) methyl)-2-oxo-2H-pyran-5-carboxylate (2s):



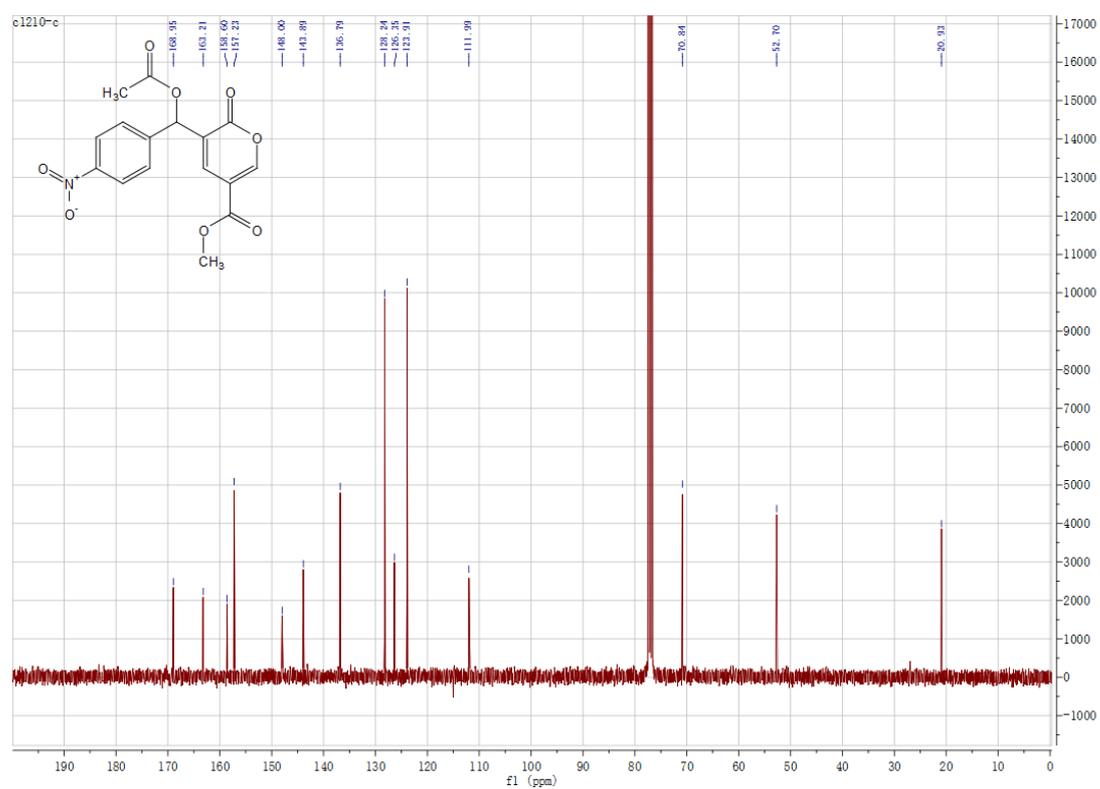
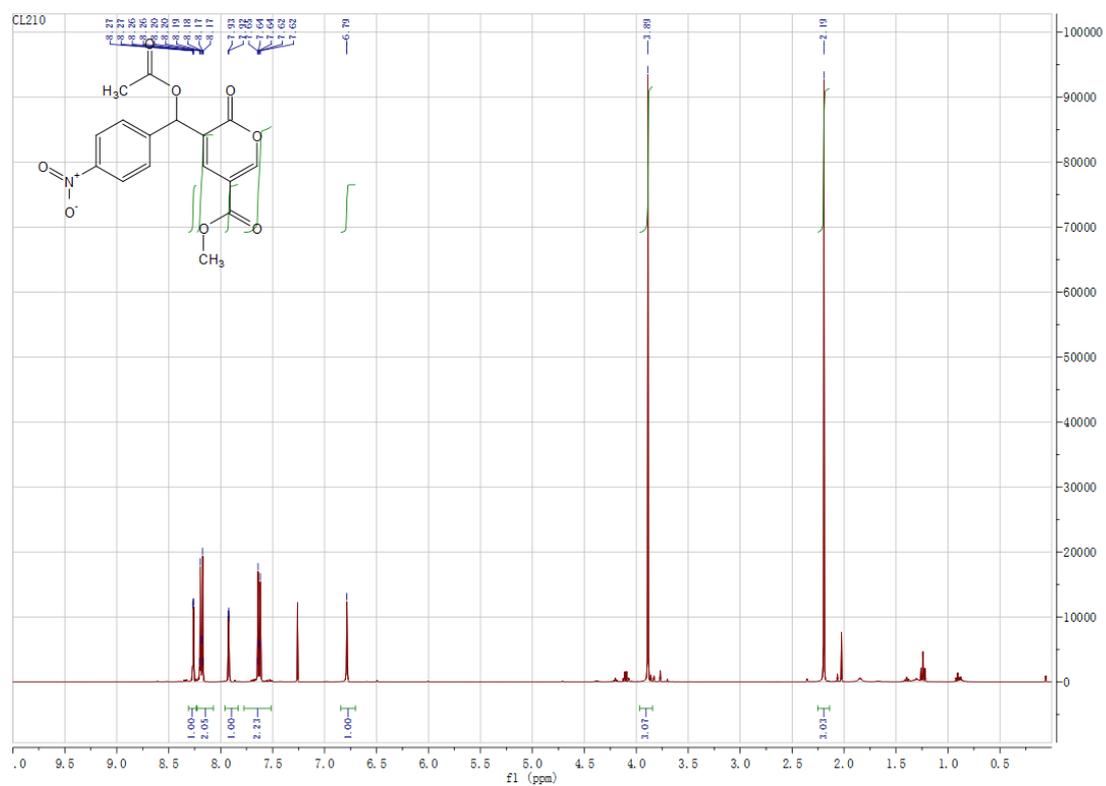
Methyl 3-((4-bromophenyl) (4-methylphenylsulfonamido) methyl)-2-oxo-2H-pyran-5-carboxylate (2u):



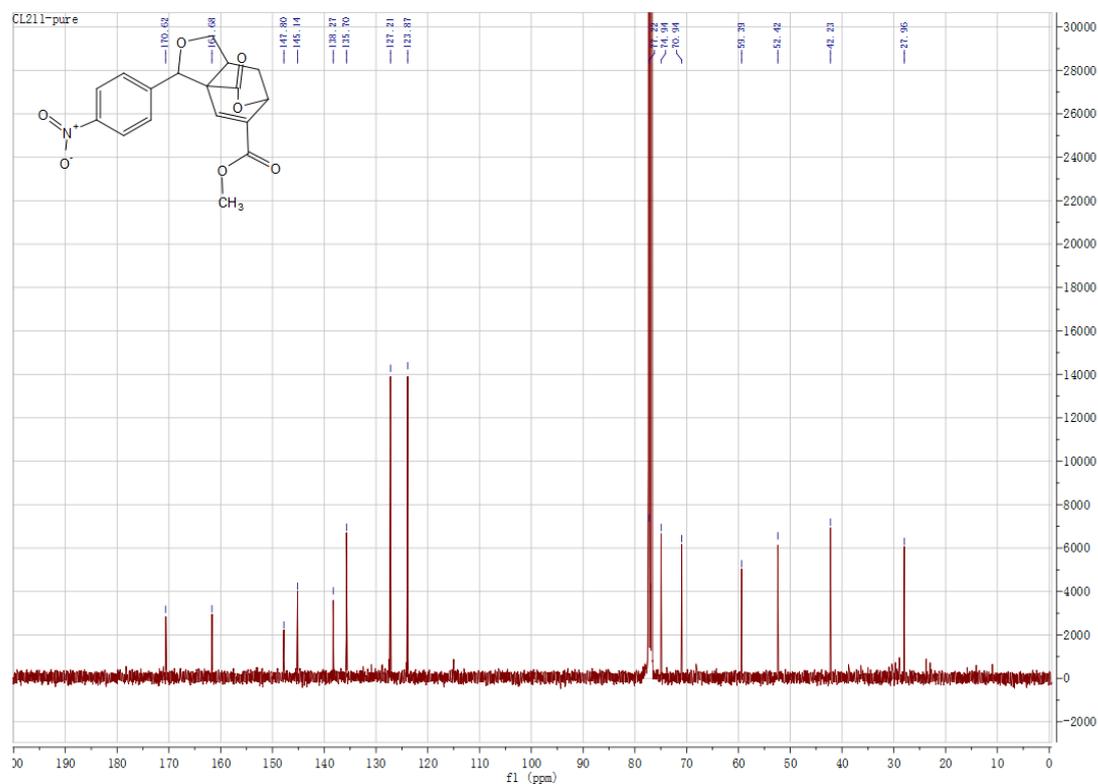
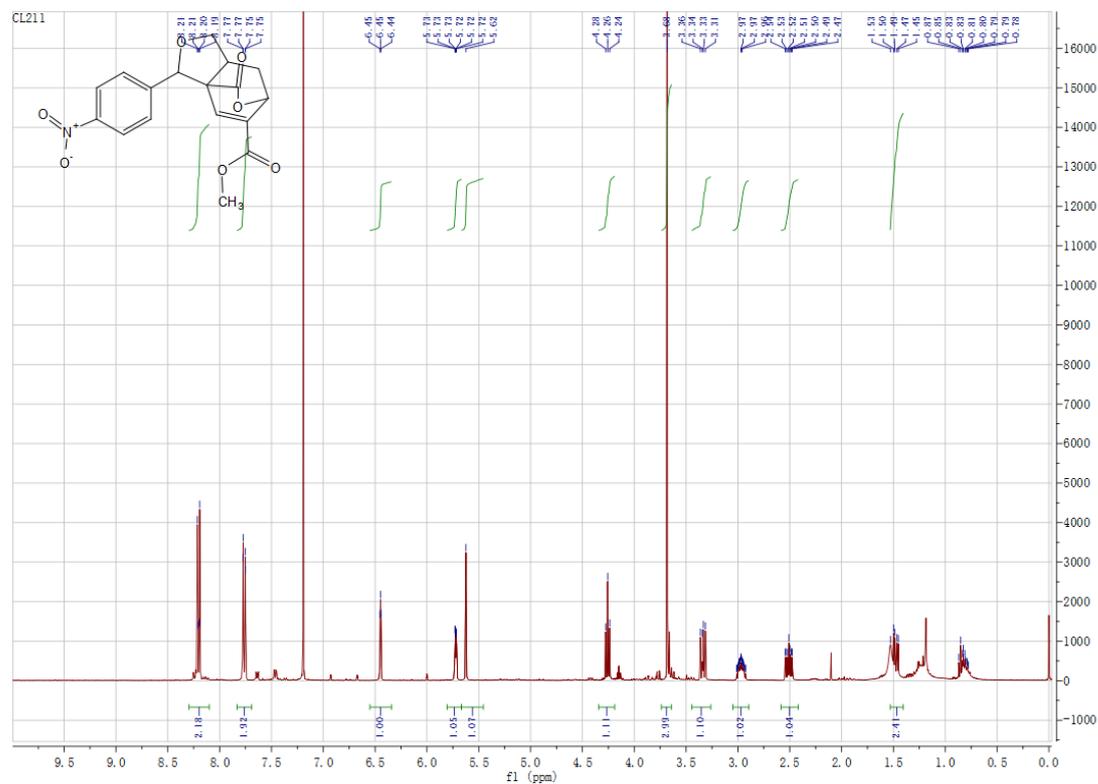
Methyl 2-(hydroxy(4-nitrophenyl)methyl)-[1,1'-biphenyl]-4-carboxylate (3a):



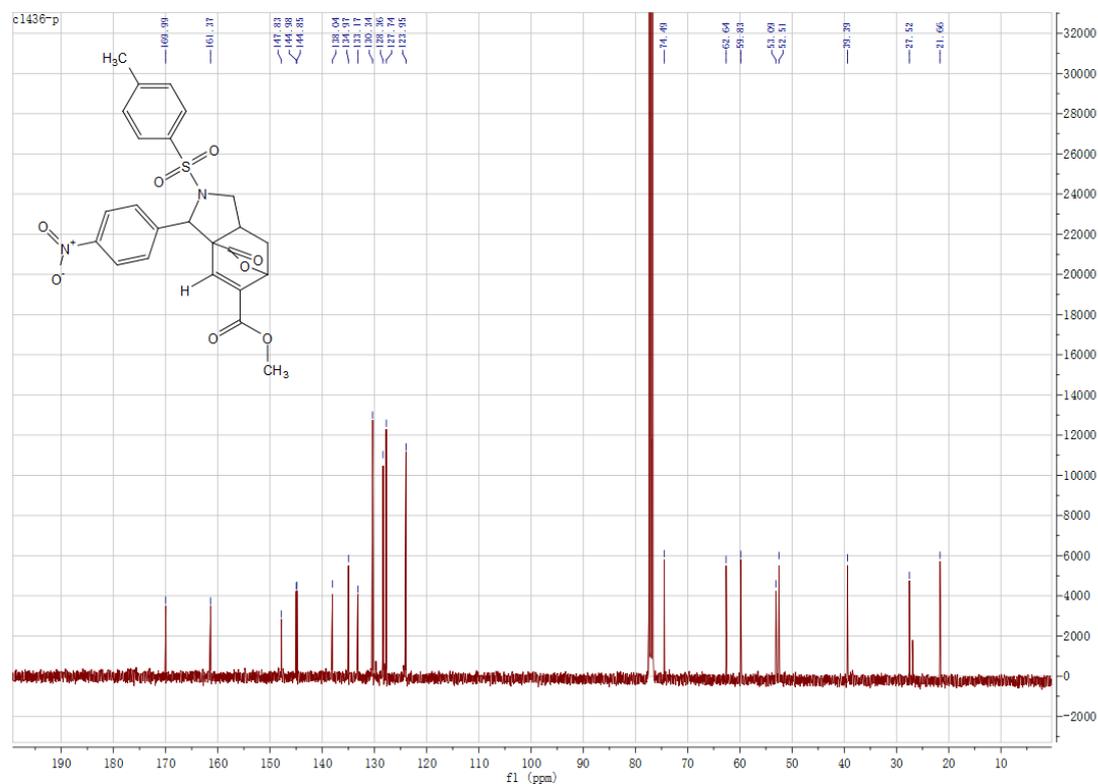
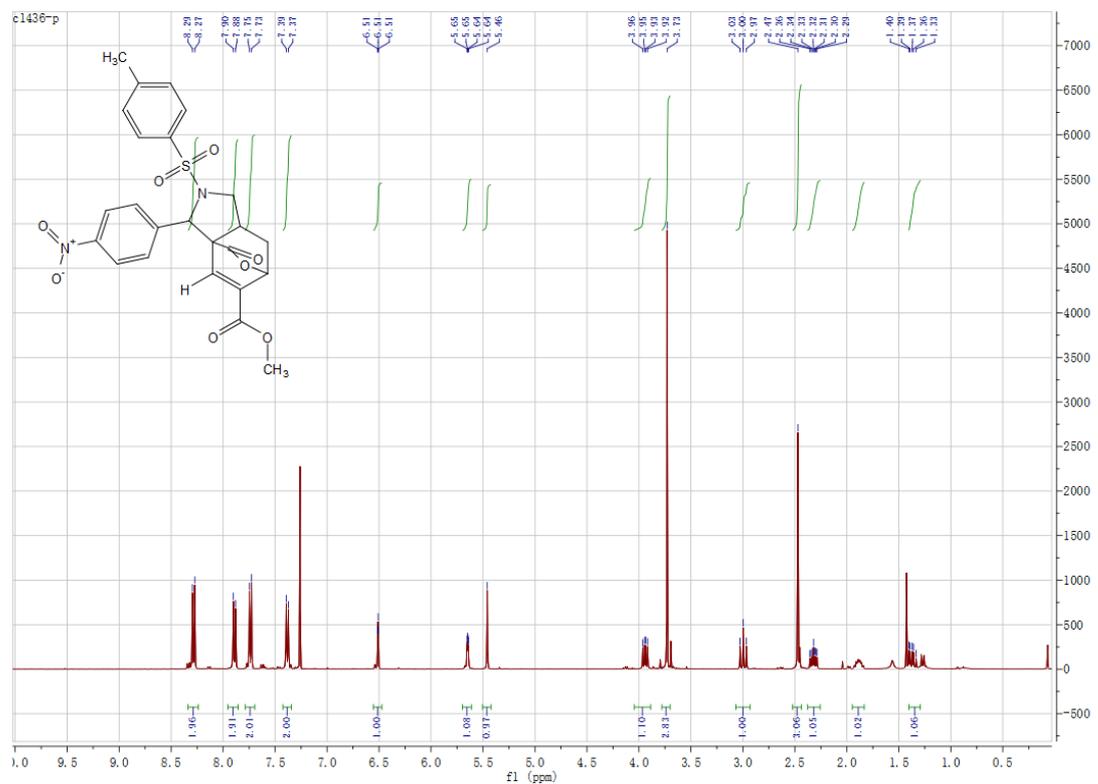
Methyl 3-(acetoxy(4-nitrophenyl)methyl) -2-oxo-2H-pyran-5-carboxylate (4a):



Methyl 1-(4-nitrophenyl)-8-oxo-3,3a,4,5-tetrahydro-1H-5,7a-
isobenzofuran-6-carboxylate (5a): (epoxymethano)

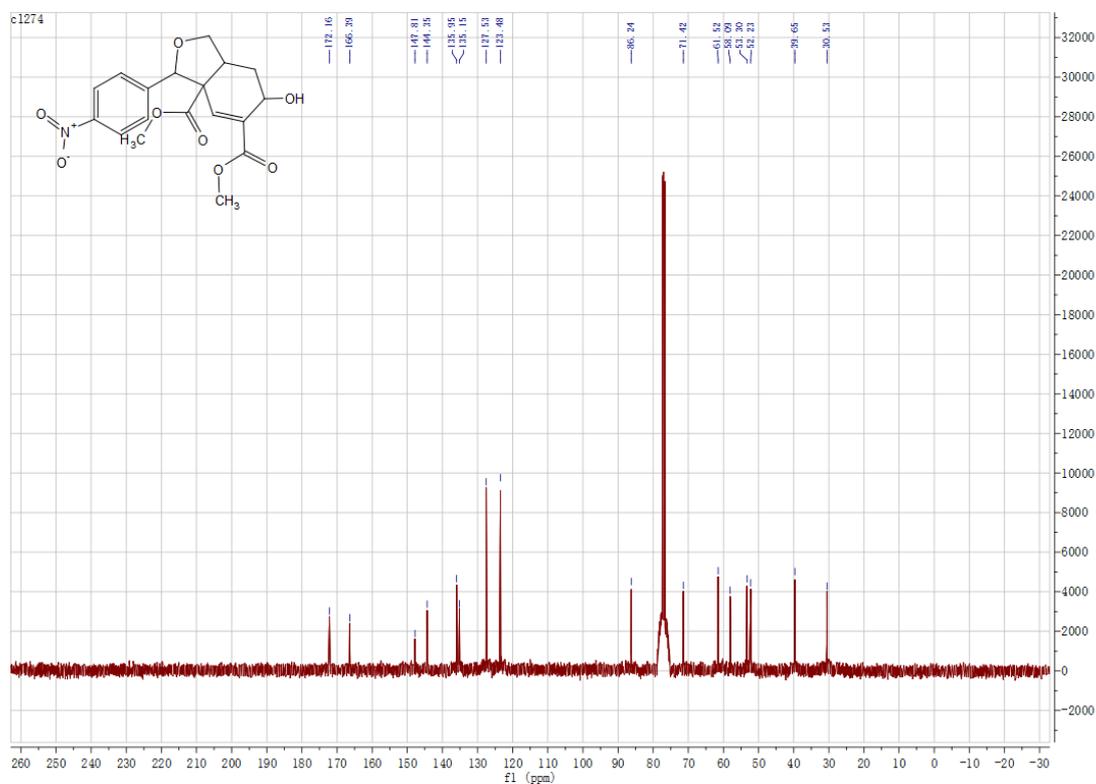
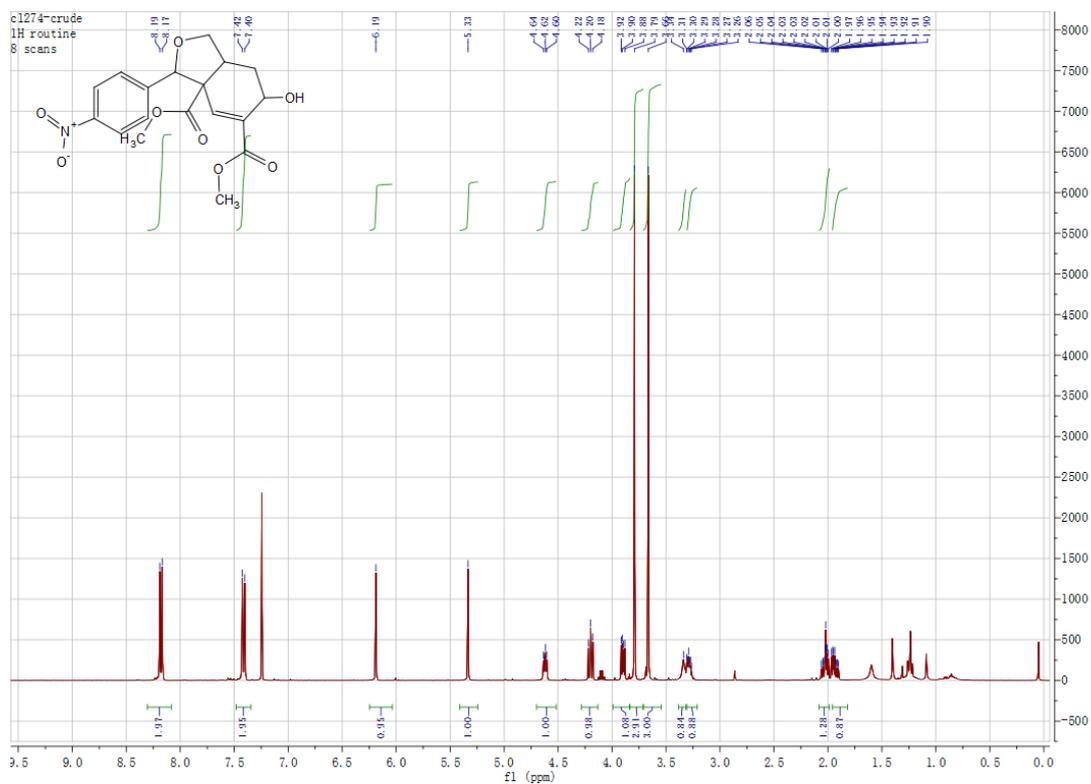


Methyl 1-(4-nitrophenyl)-8-oxo-2-tosyl-1,2,3,3a,4,5-hexahydro-5,7a-isoindole-6-carboxylate (5b):



Dimethyl 6-hydroxy-3-(4-nitrophenyl)-
-3a,5-dicarboxylate (6a):

1,3,3a,6,7,7a-hexahydroisobenzofuran



Dimethyl 6-hydroxy-3-(4-nitrophenyl)-2-tosyl-2,3,3a,6,7,7a-hexahydro-1H-isoindole-3a,5-dicarboxylate (6b):

