

Synthesis of 2, 5-Disubstituted Oxazoles and Oxazolines Catalyzed by Ruthenium (II) Porphyrin and Simple Copper Salts

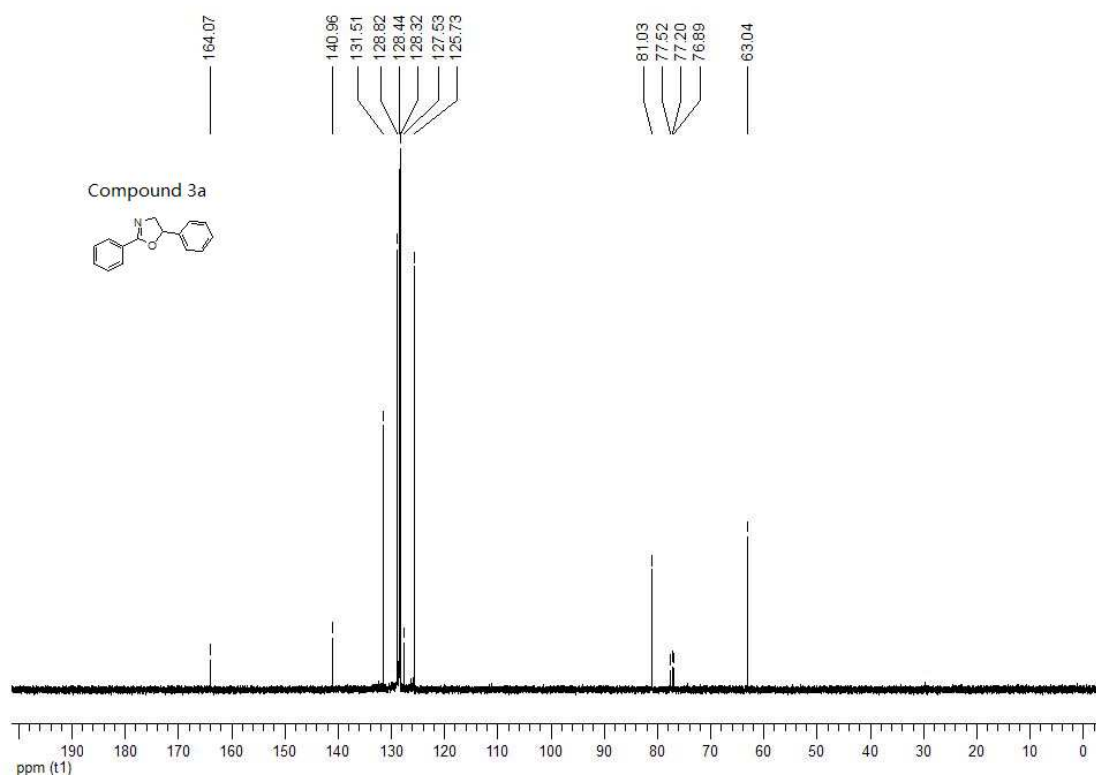
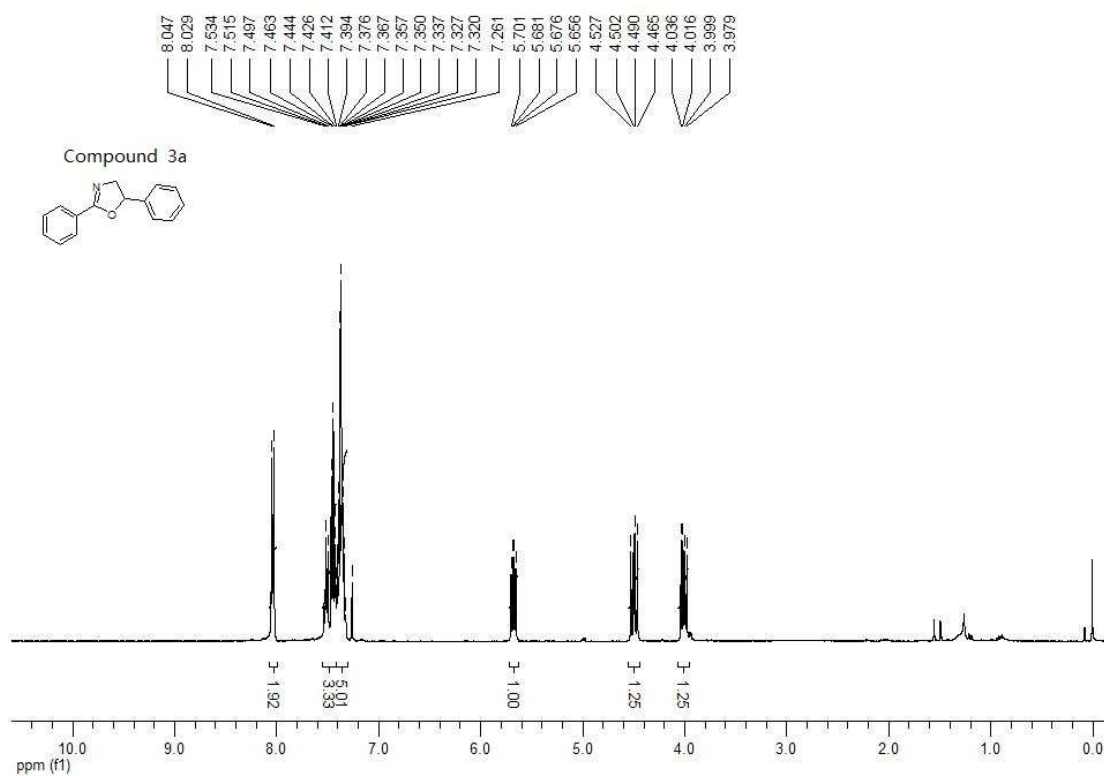
Chuan Long Zhong[†], Bo Yang Tang[†], Ping Yin[†], Yue Chen[‡], Ling He^{*†}

Key Laboratory of Drug-Targeting and Drug-Delivery Systems of the Ministry of Education, Department of Medicinal Chemistry, West China School of Pharmacy, Sichuan University, Chengdu, Sichuan, 610041, P. R. China.

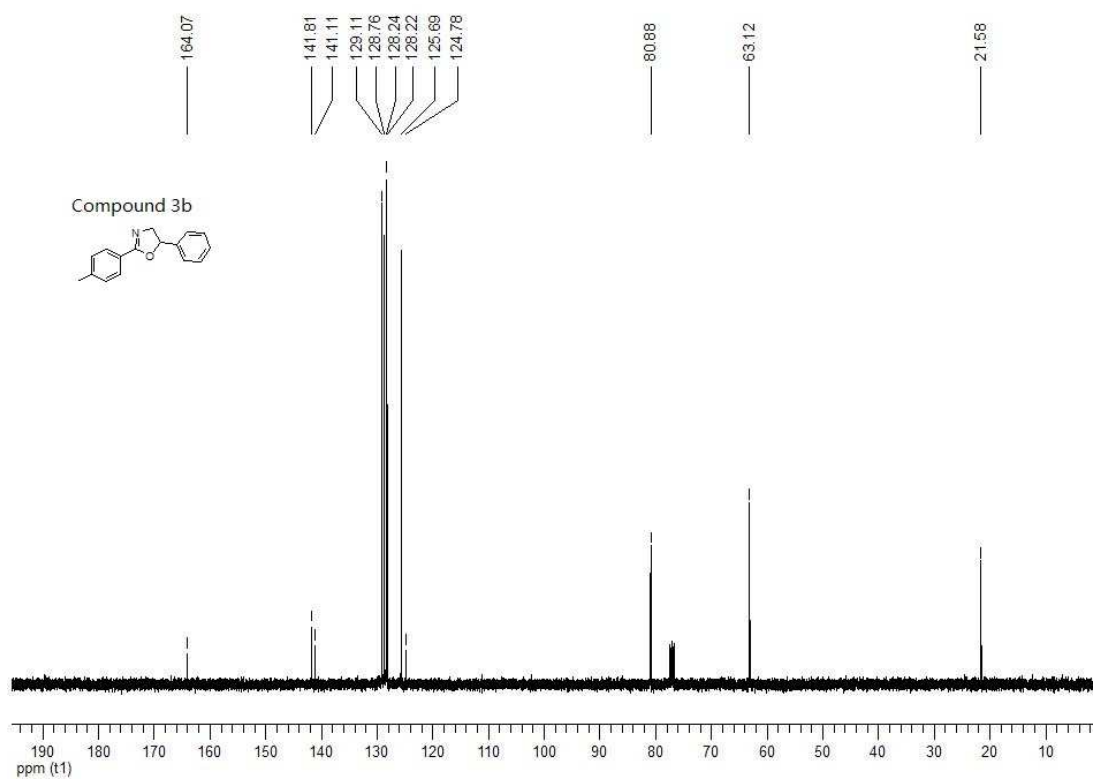
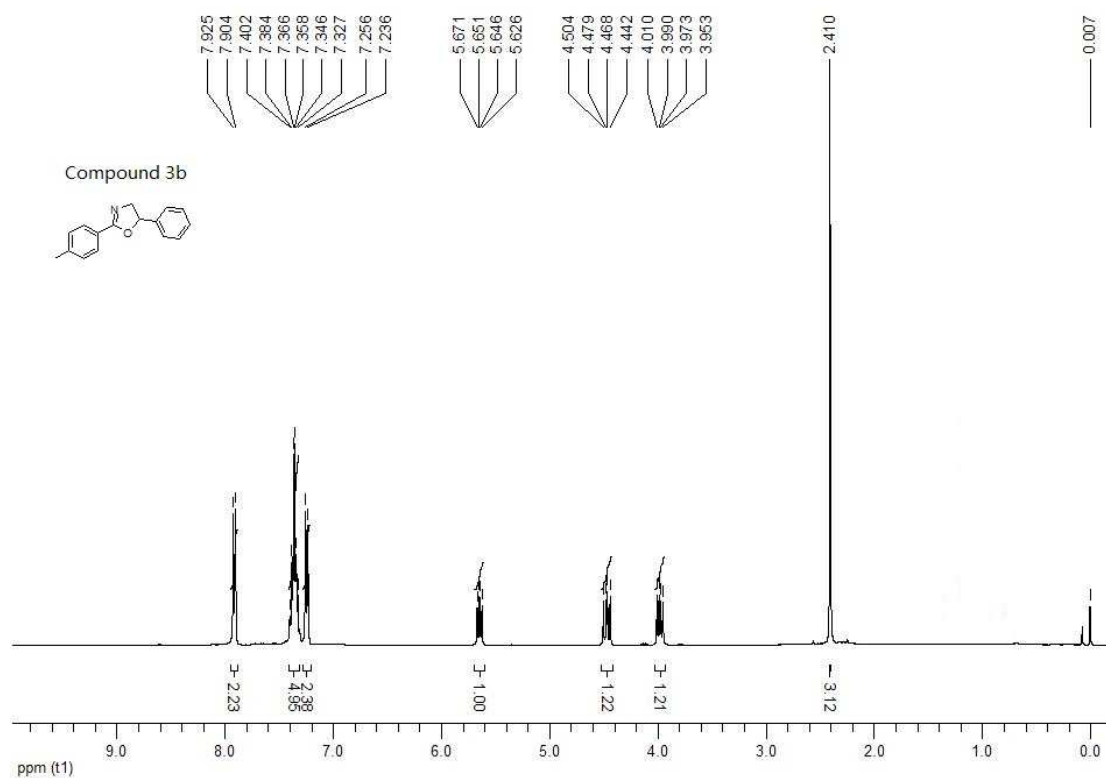
Supporting Information

¹H-NMR and ¹³C-NMR Spectra of Compounds.....S2-S36

2,5-diphenyl-4,5-dihydrooxazole (**3a**)



5-phenyl-2-p-tolyl-4,5-dihydrooxazole (**3b**):



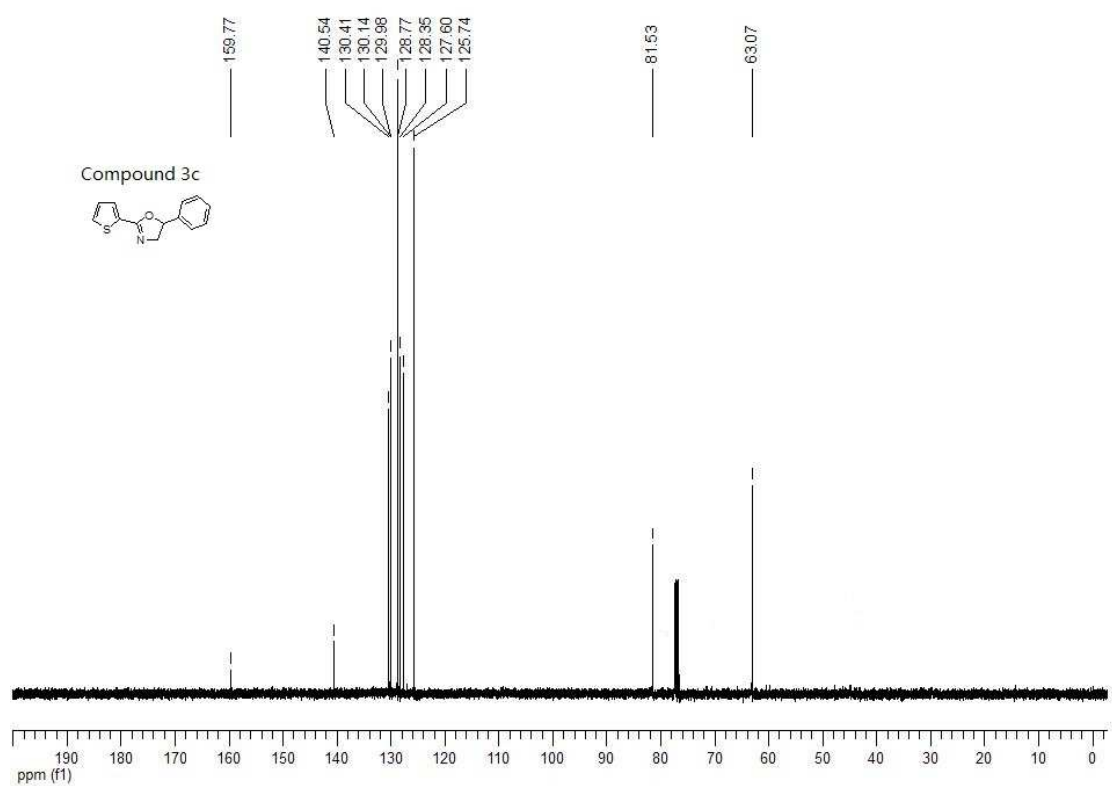
Compound 3c

c1ccc(cc1)-c2nc3ccsc3o2

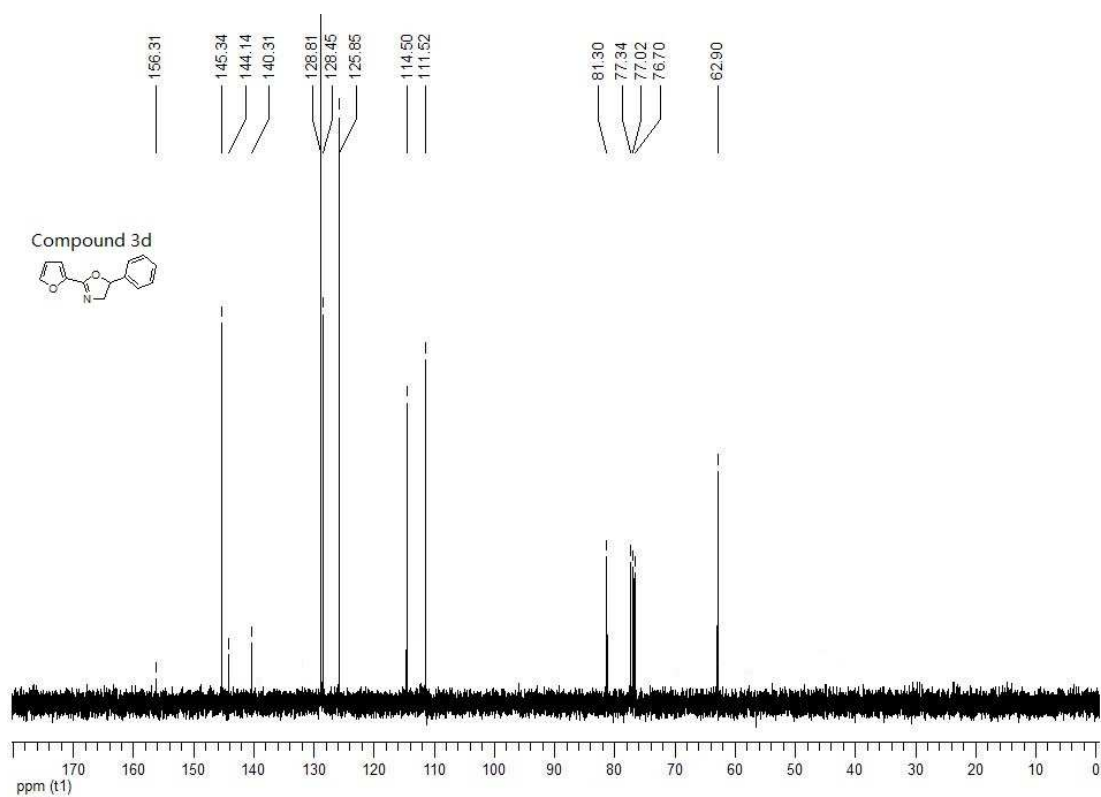
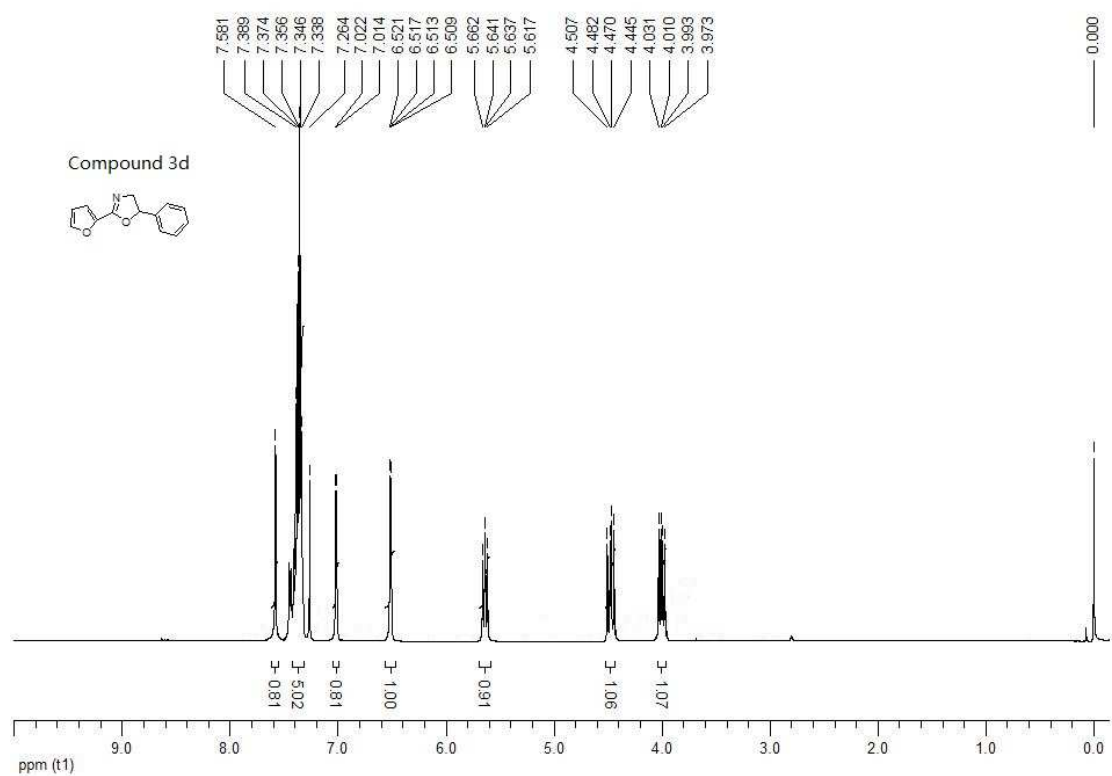
Chemical structure of Compound 3c: c1ccc(cc1)-c2nc3ccsc3o2

¹H NMR spectrum (CDCl₃) showing peaks at the following chemical shifts (ppm): 7.669, 7.661, 7.489, 7.478, 7.477, 7.409, 7.391, 7.388, 7.382, 7.373, 7.363, 7.344, 7.339, 7.336, 7.326, 7.319, 7.262, 7.112, 7.102, 7.100, 7.090, 5.680, 5.666, 5.636, 4.490, 4.464, 4.453, 4.428, 4.003, 3.983, 3.966, 3.946.

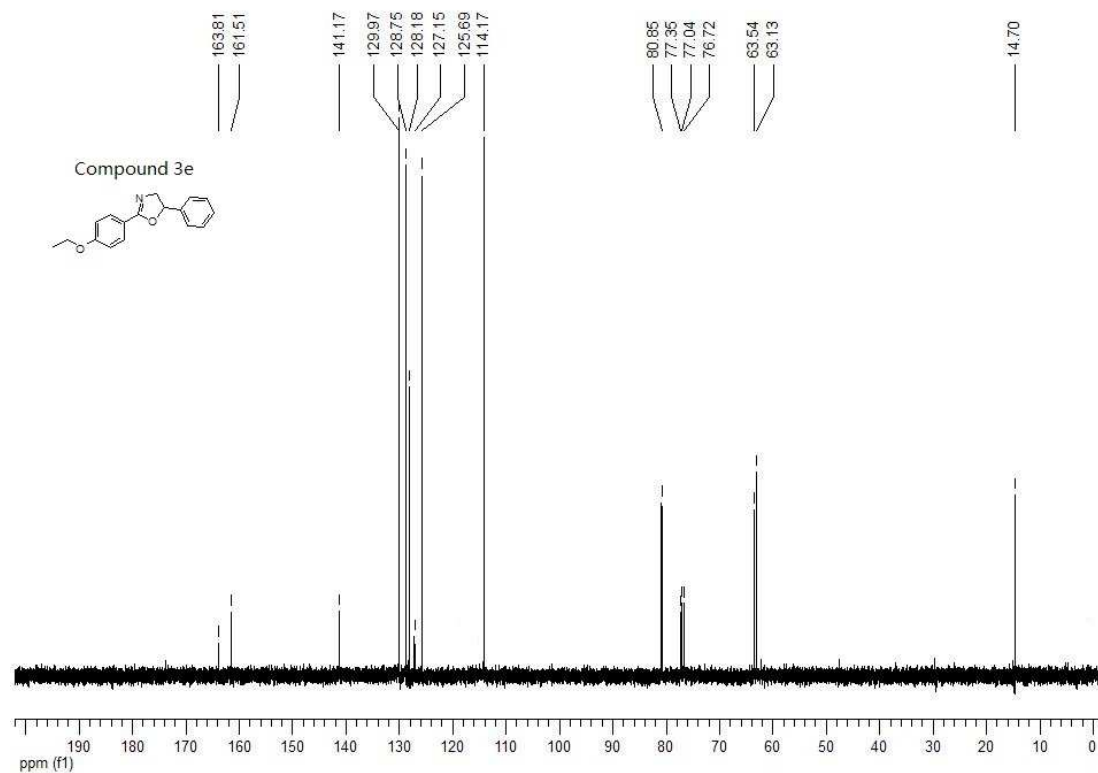
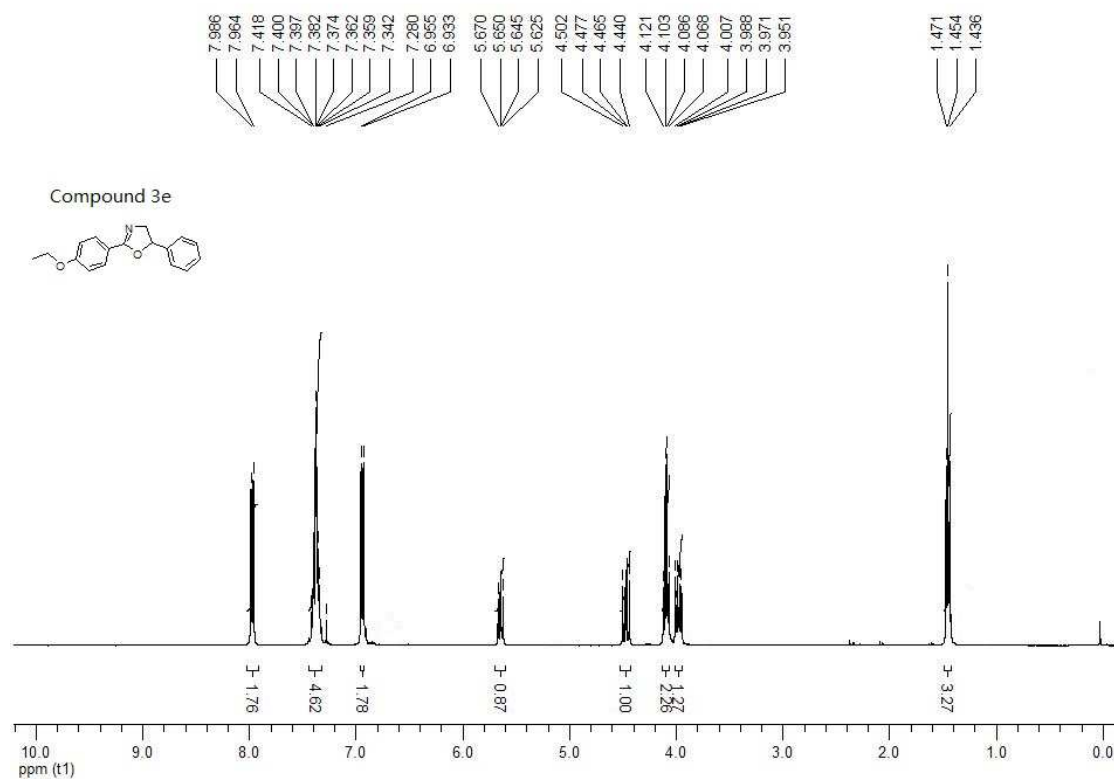
Integration values: 0.96, 0.96, 0.96, 0.98, 1.00, 1.20, 1.29.



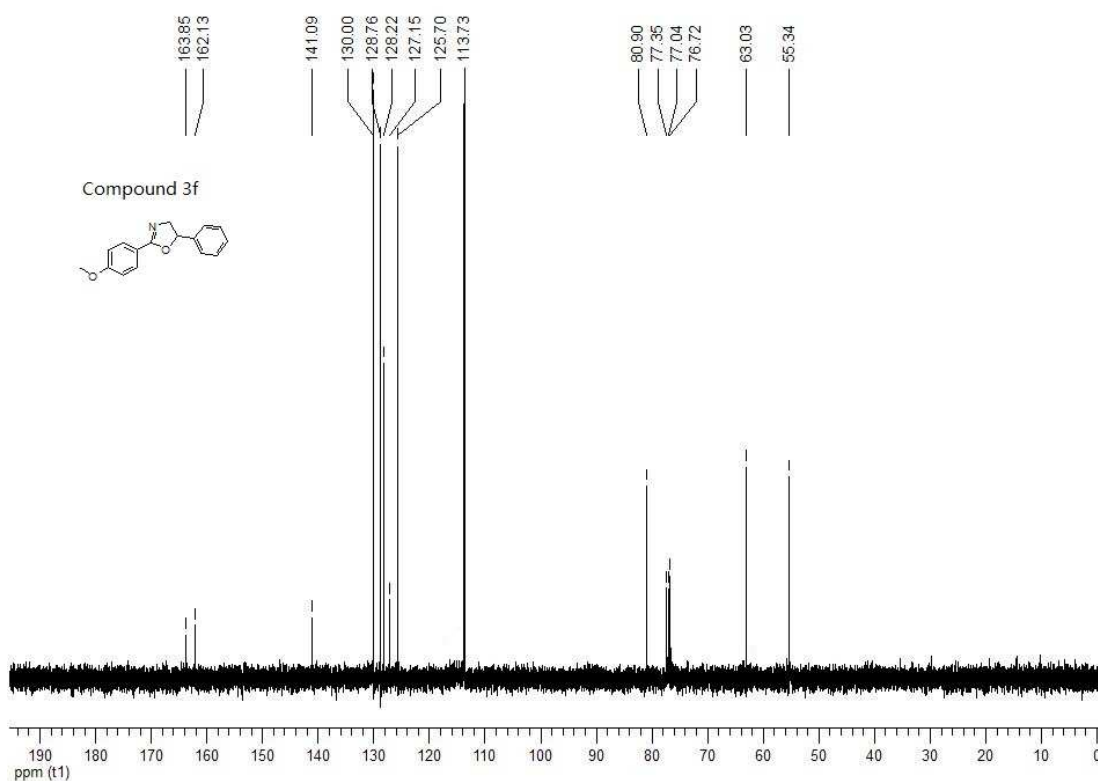
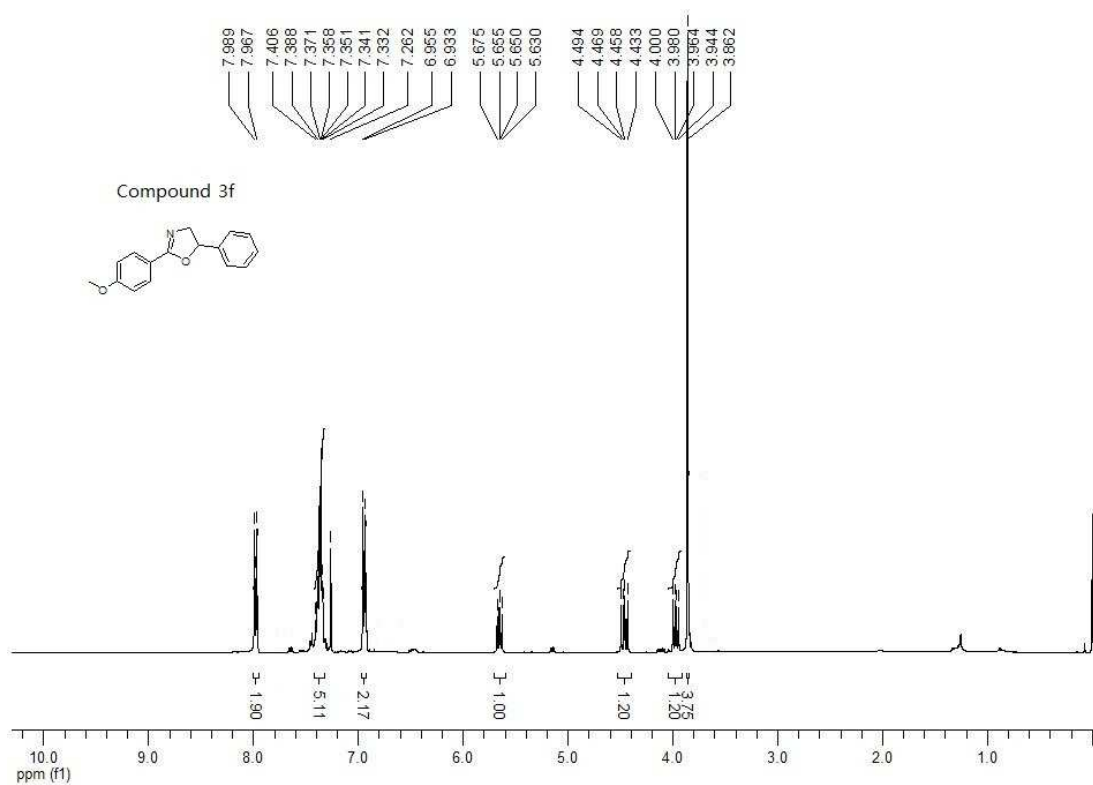
2-(furan-2-yl)-5-phenyl-4,5-dihydrooxazole (**3d**):



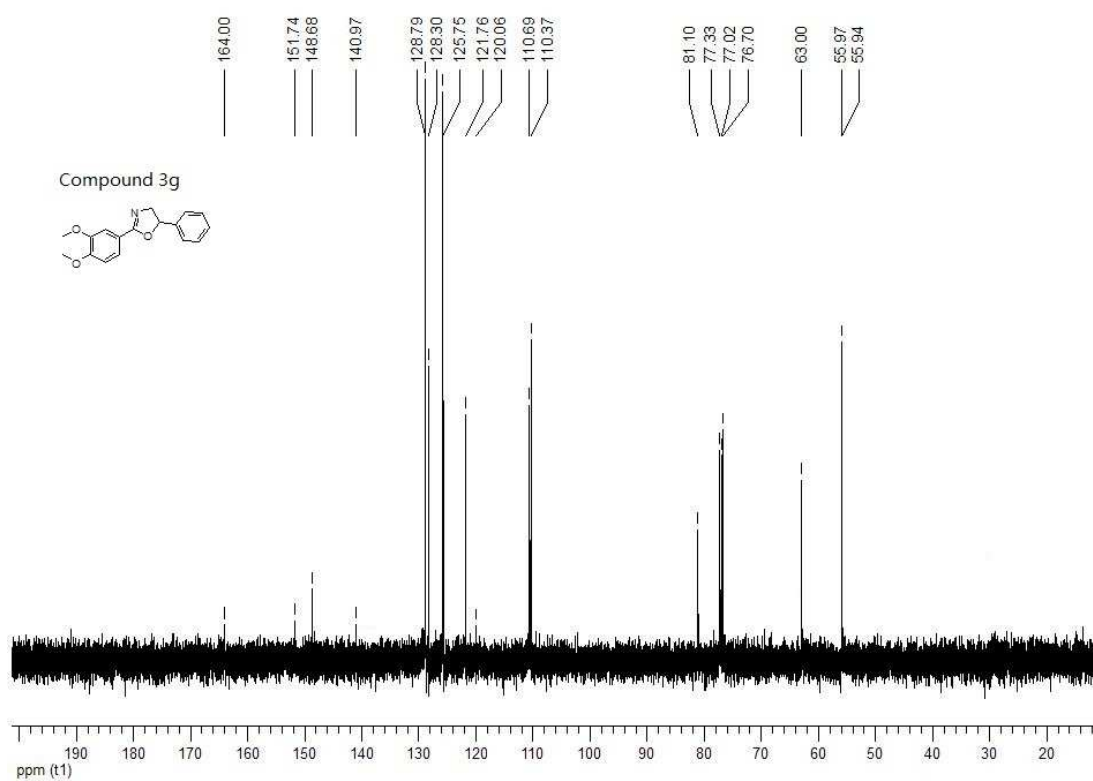
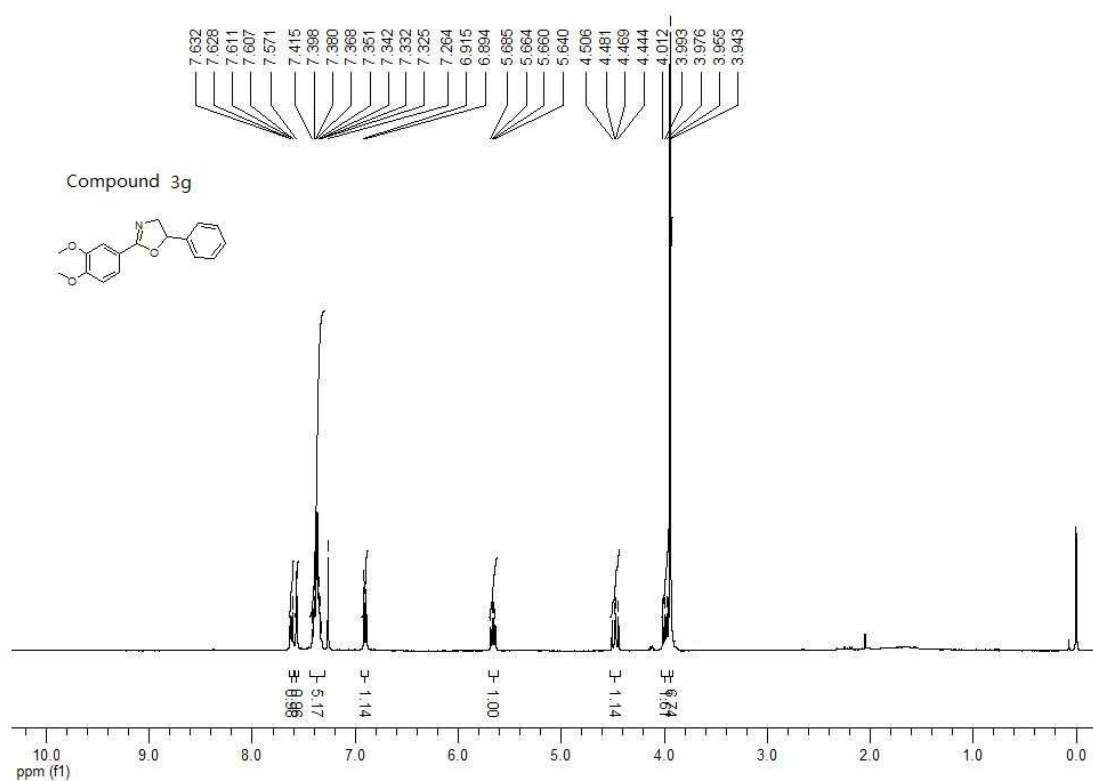
2-(4-ethoxyphenyl)-5-phenyl-4,5-dihydrooxazole (**3e**):



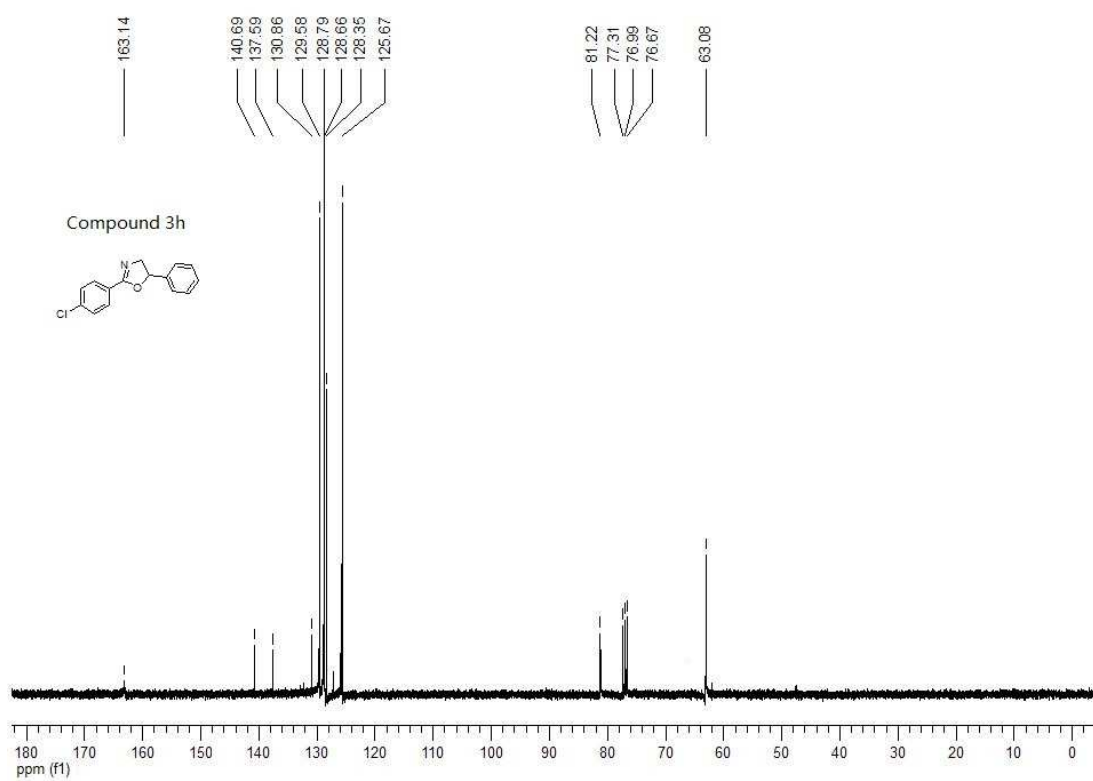
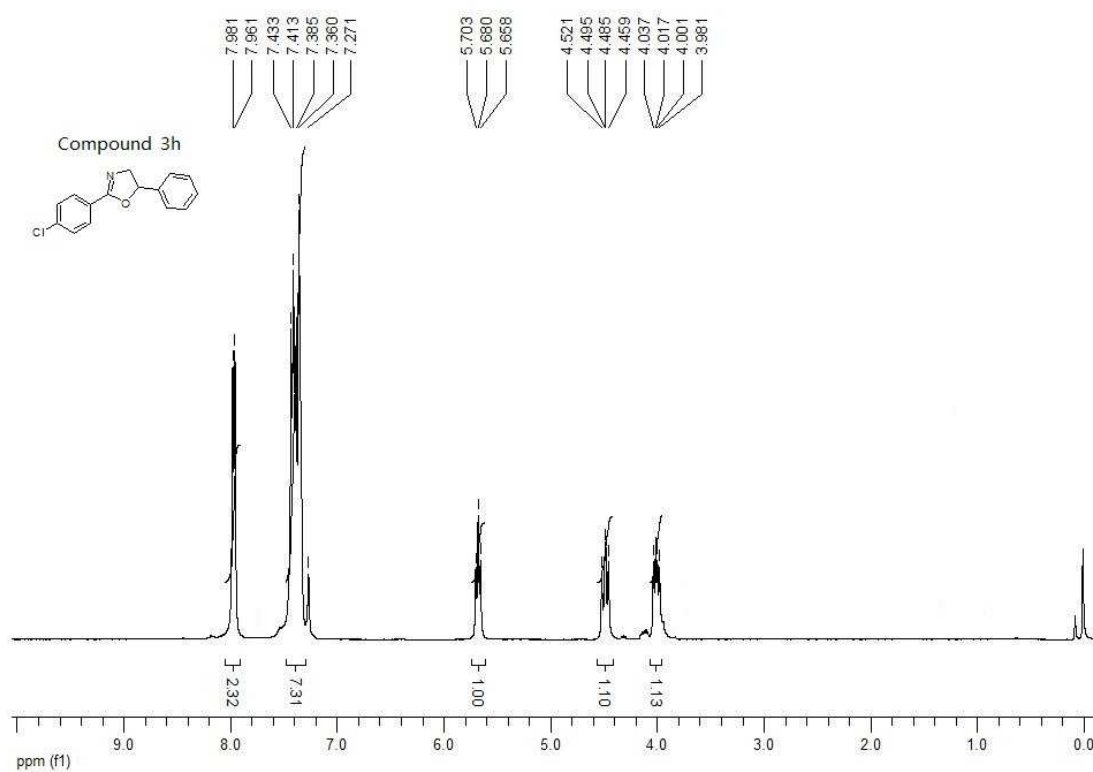
2-(4-methoxyphenyl)-5-phenyl-4,5-dihydrooxazole (**3f**):



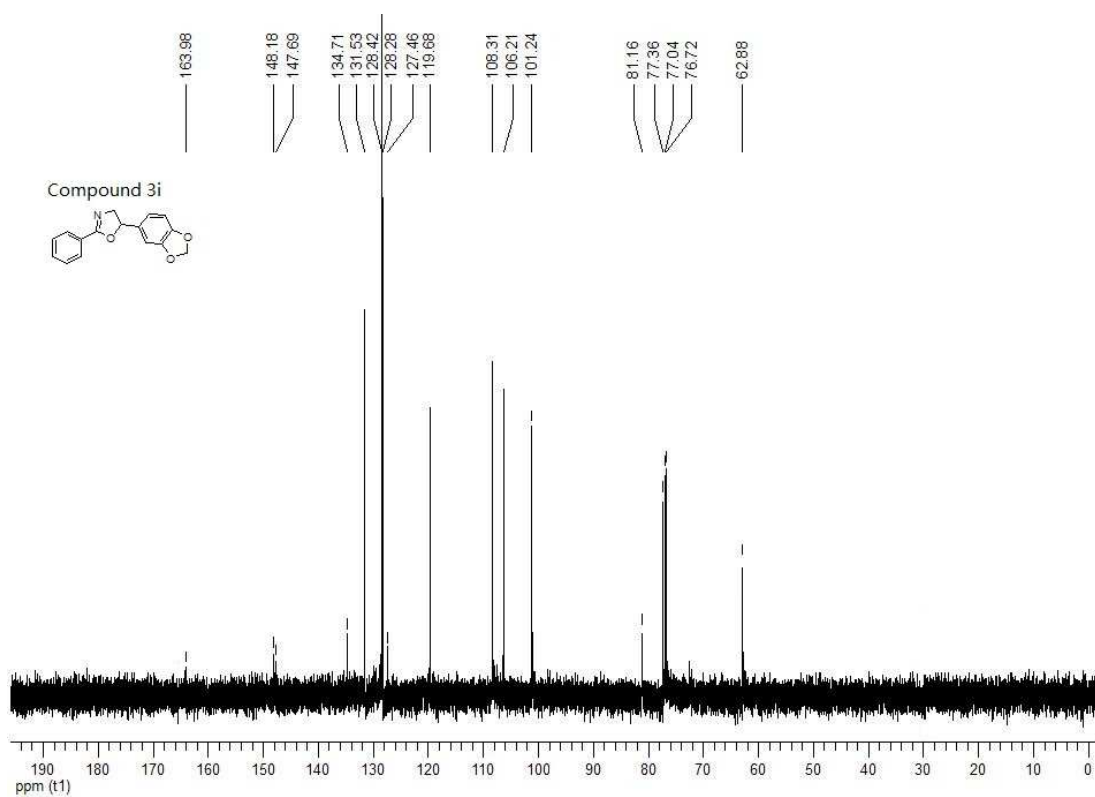
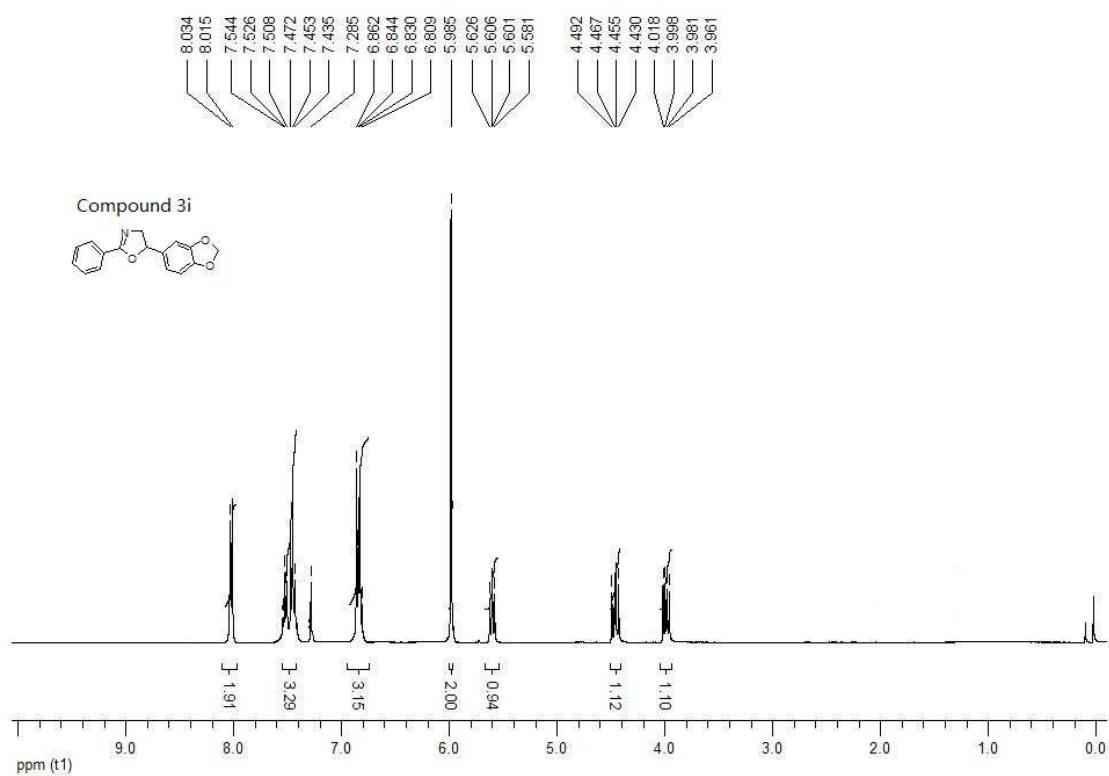
2-(3,4-dimethoxyphenyl)-5-phenyl-4,5-dihydrooxazole (**3g**):



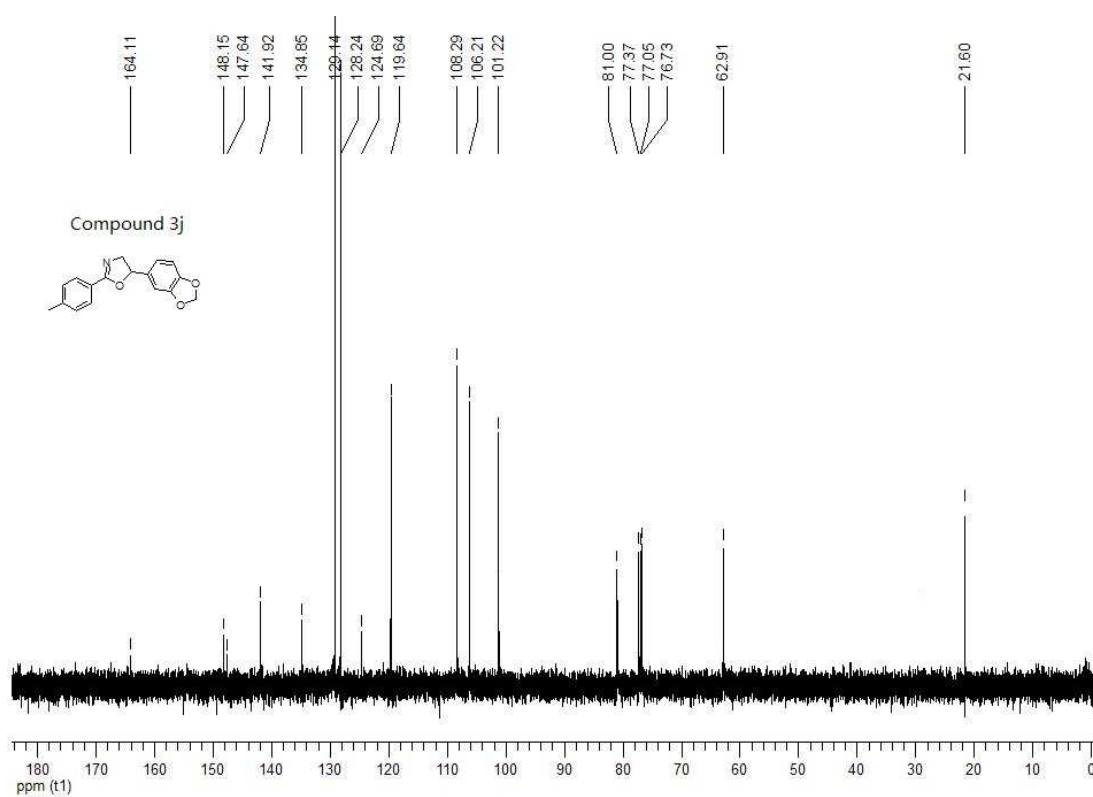
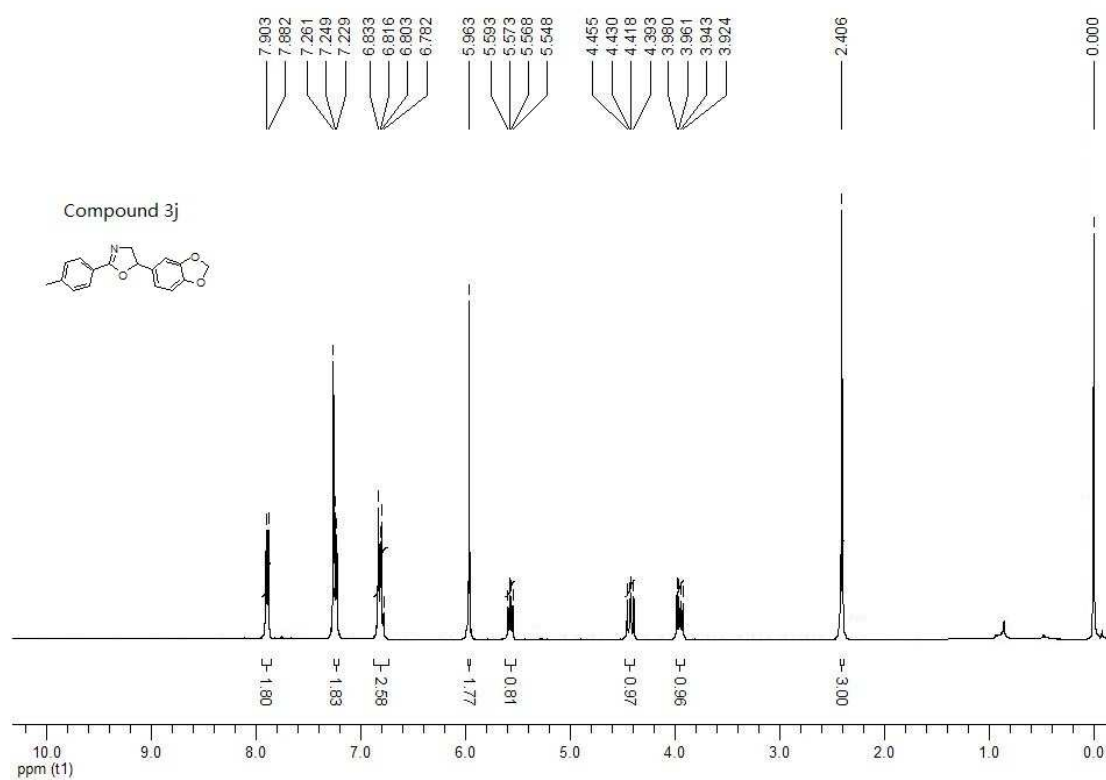
2-(4-chlorophenyl)-5-phenyl-4,5-dihydrooxazole (**3h**):



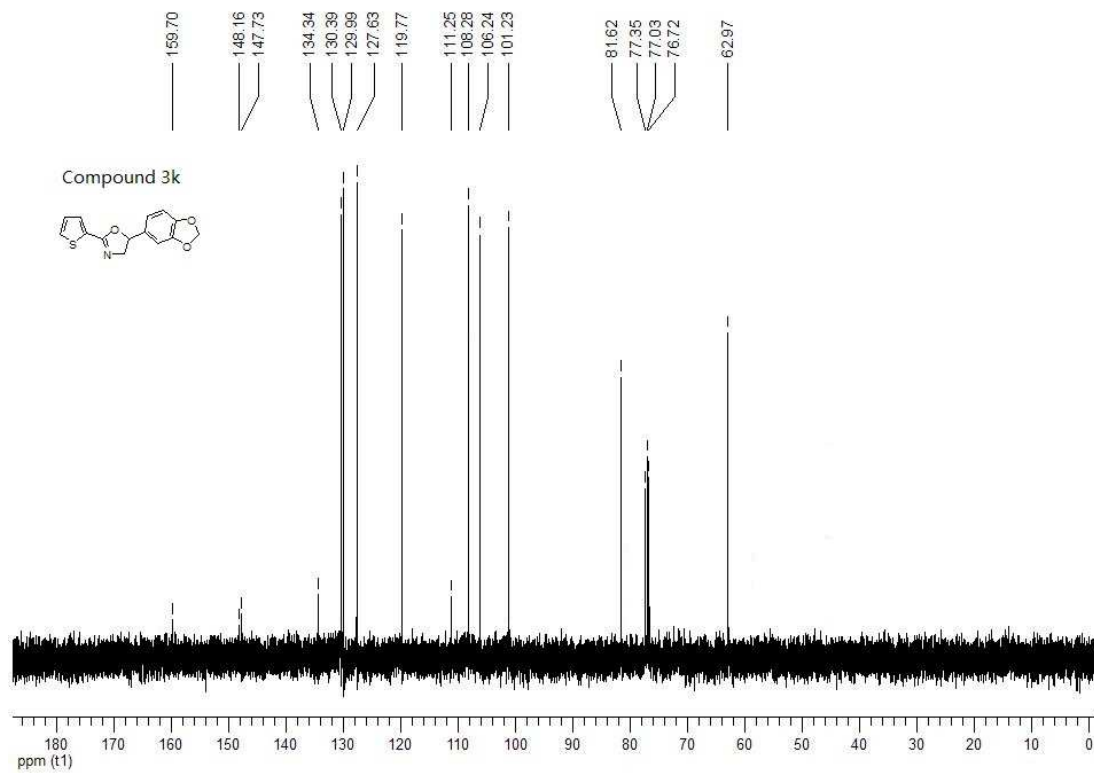
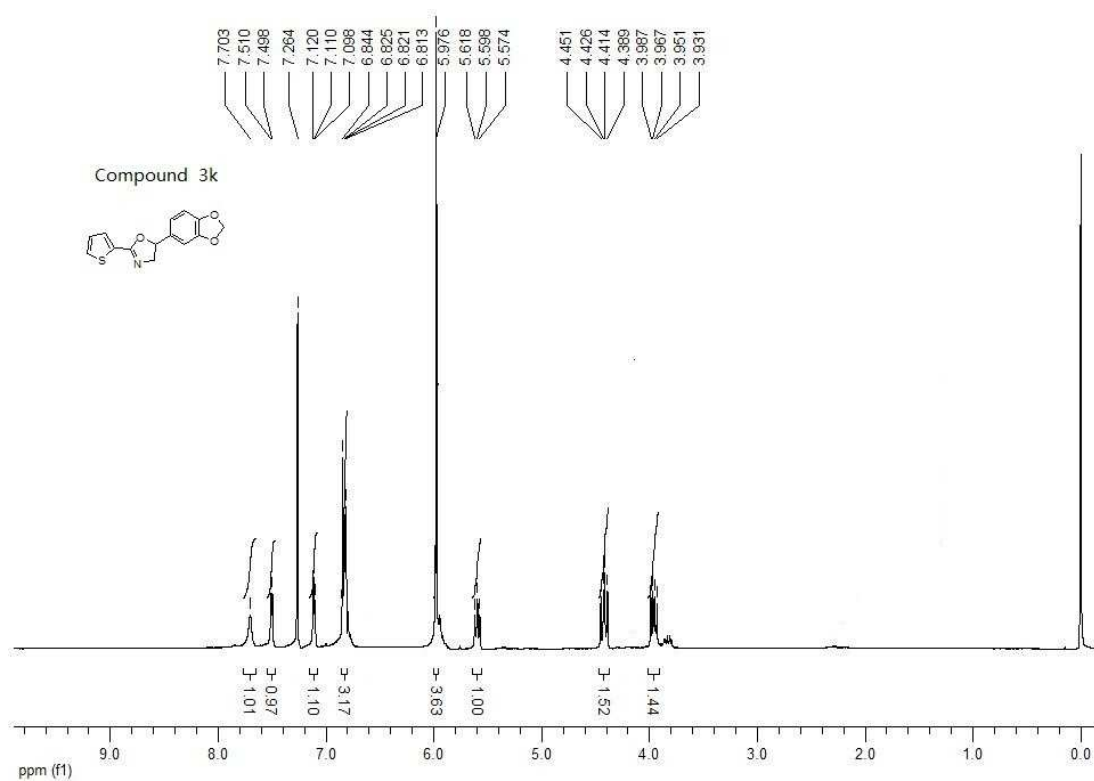
5-(benzo[d][1,3]dioxol-5-yl)-2-phenyl-4,5-dihydrooxazole (**3i**):



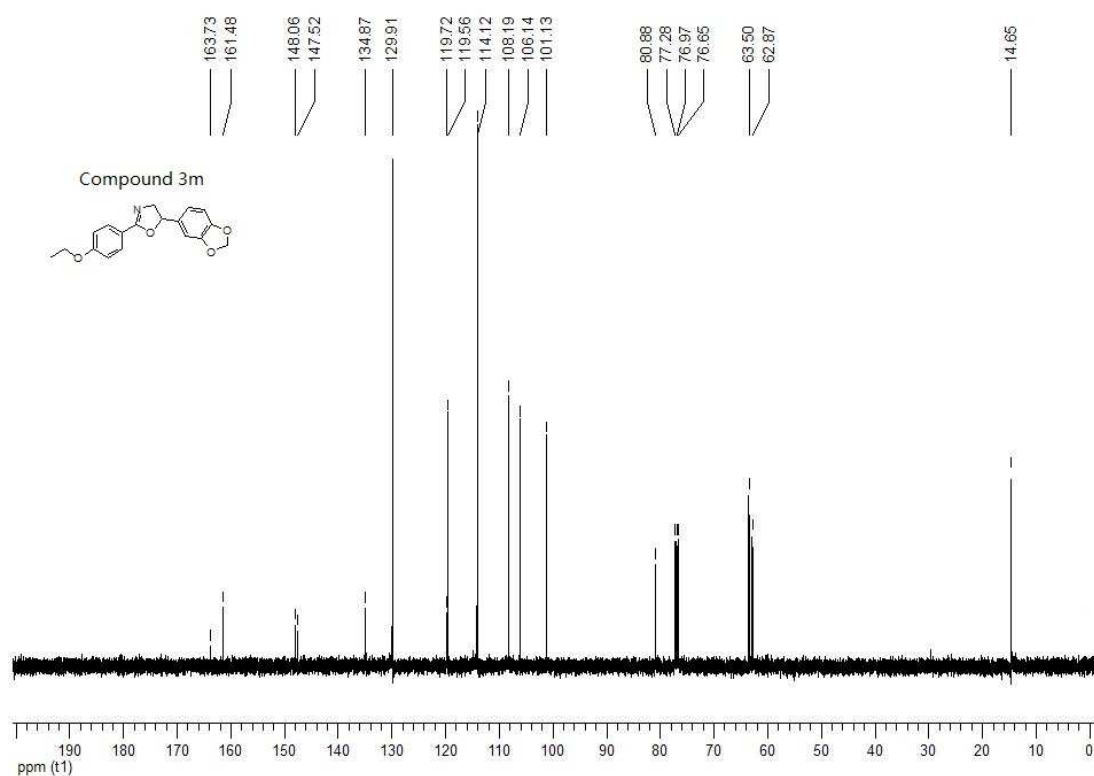
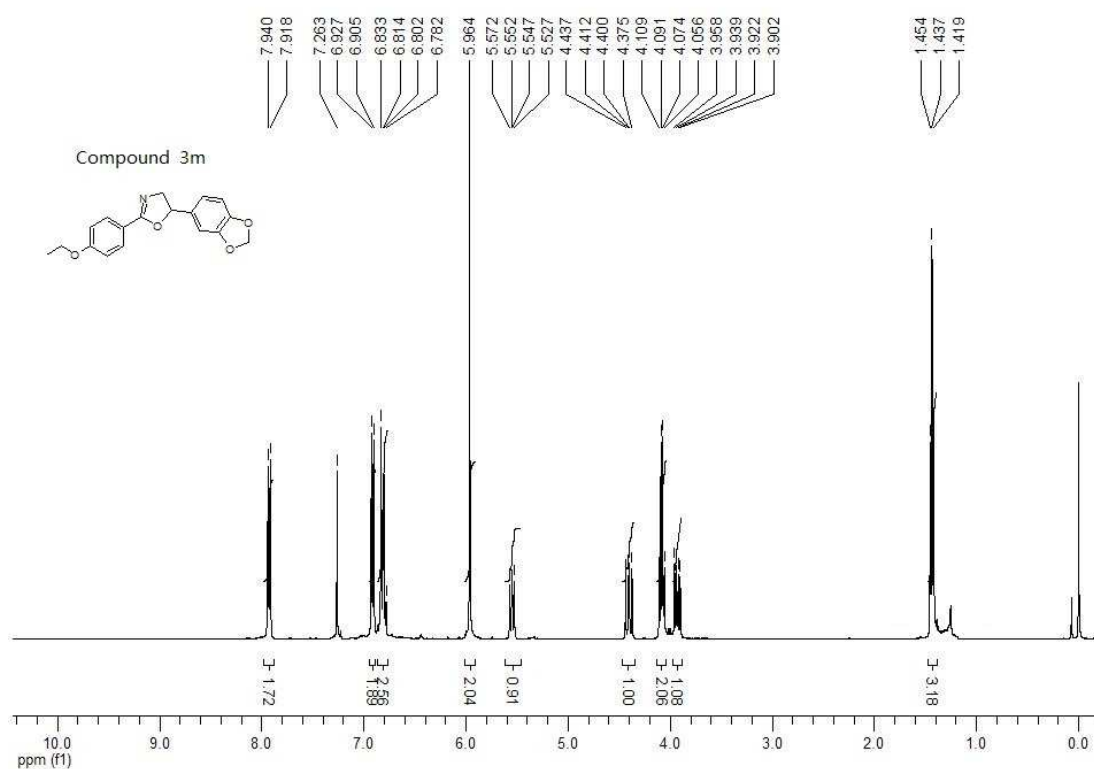
5-(benzo[d][1,3]dioxol-5-yl)-2-p-tolyl-4,5-dihydrooxazole (**3j**):



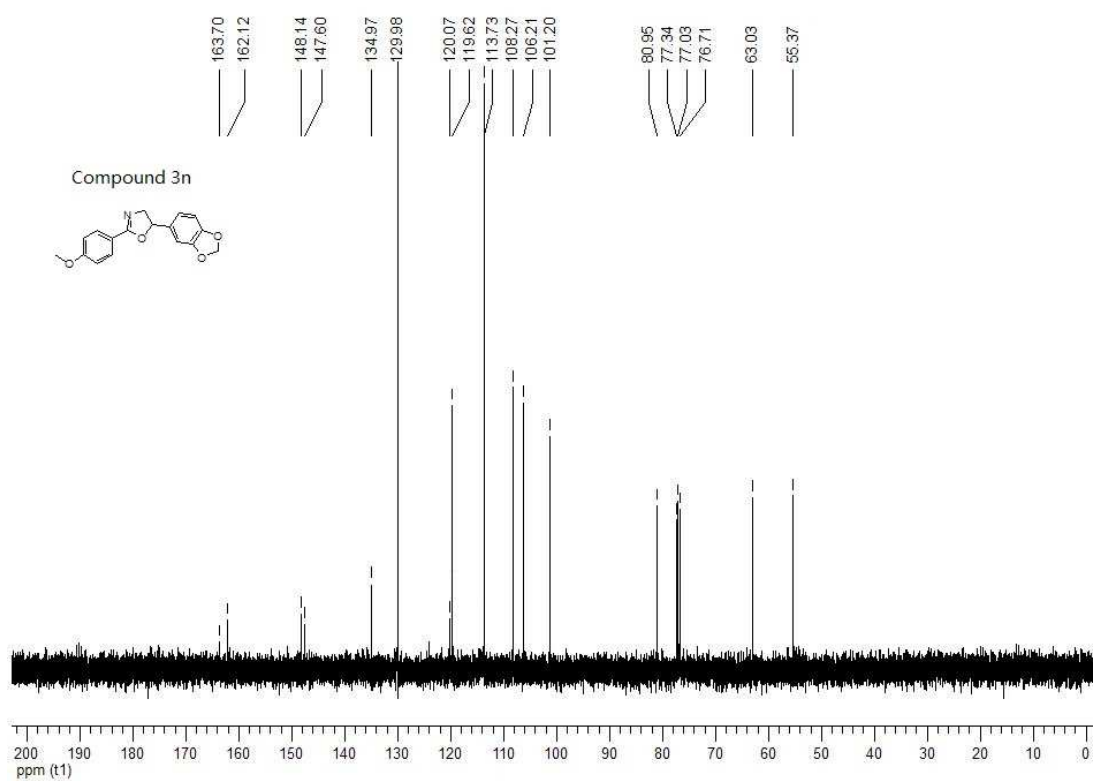
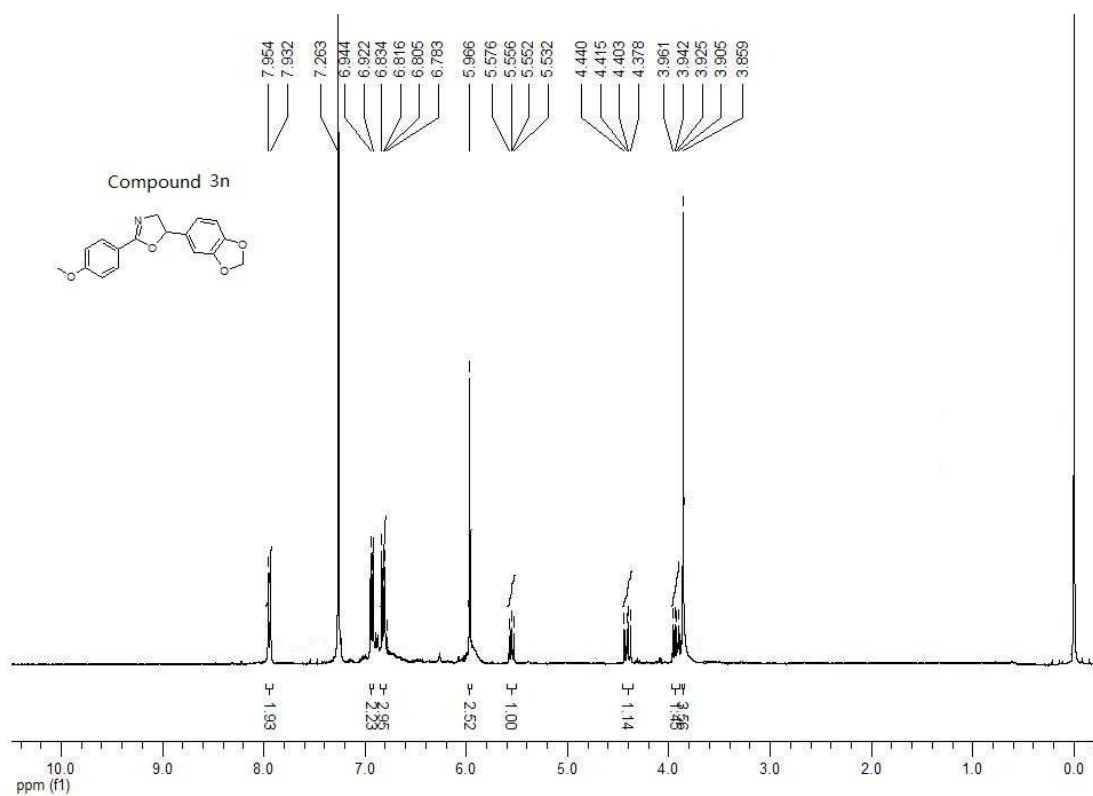
5-(benzo[d][1,3]dioxol-5-yl)-2-(thiophen-2-yl)-4,5-dihydrooxazole (**3k**):



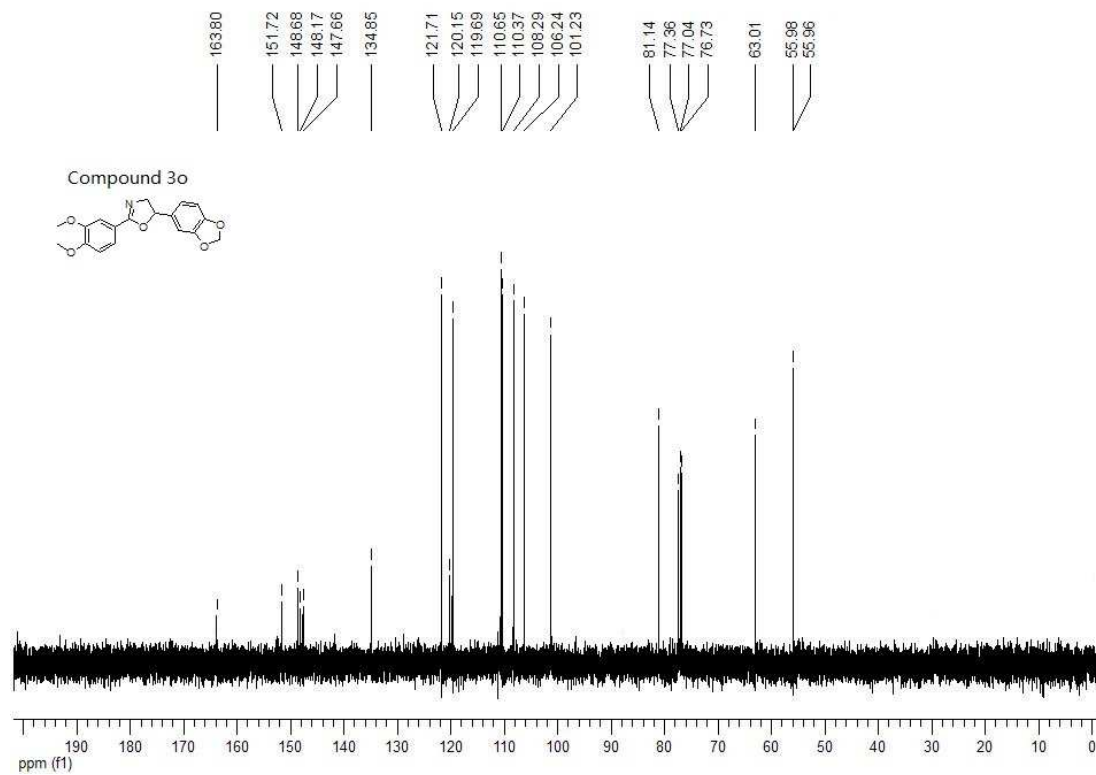
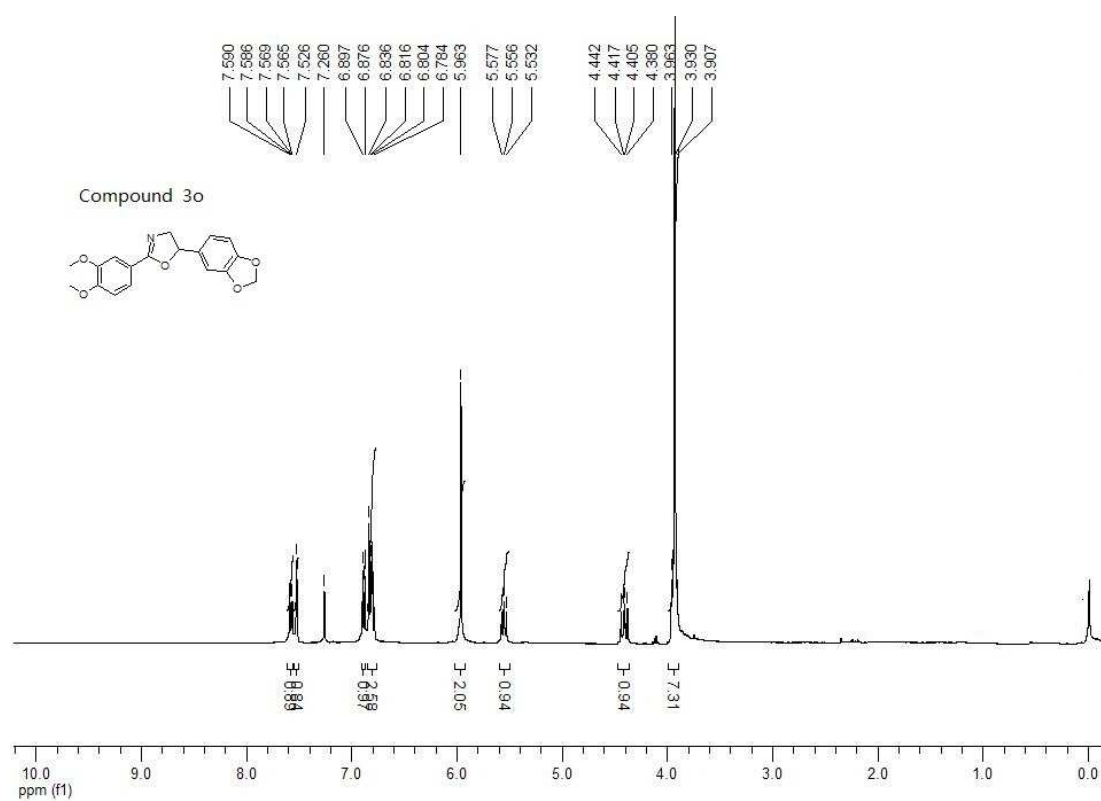
5-(benzo[d][1,3]dioxol-5-yl)-2-(4-ethoxyphenyl)-4,5-dihydrooxazole (**3m**):



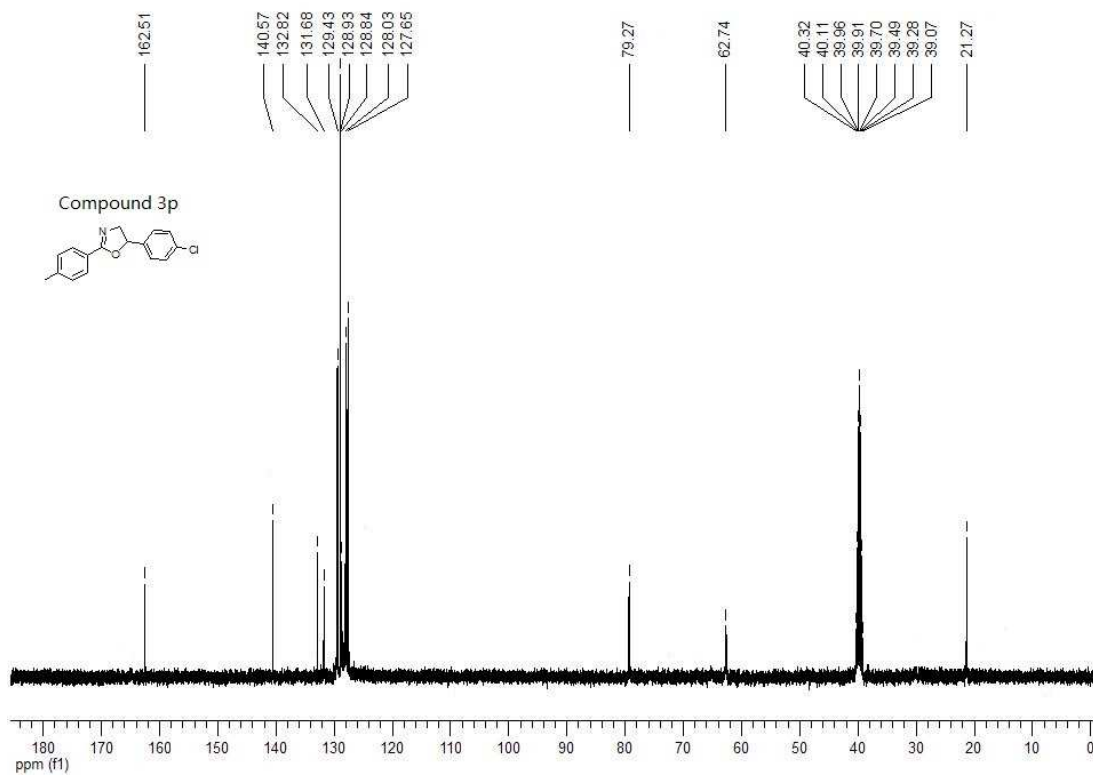
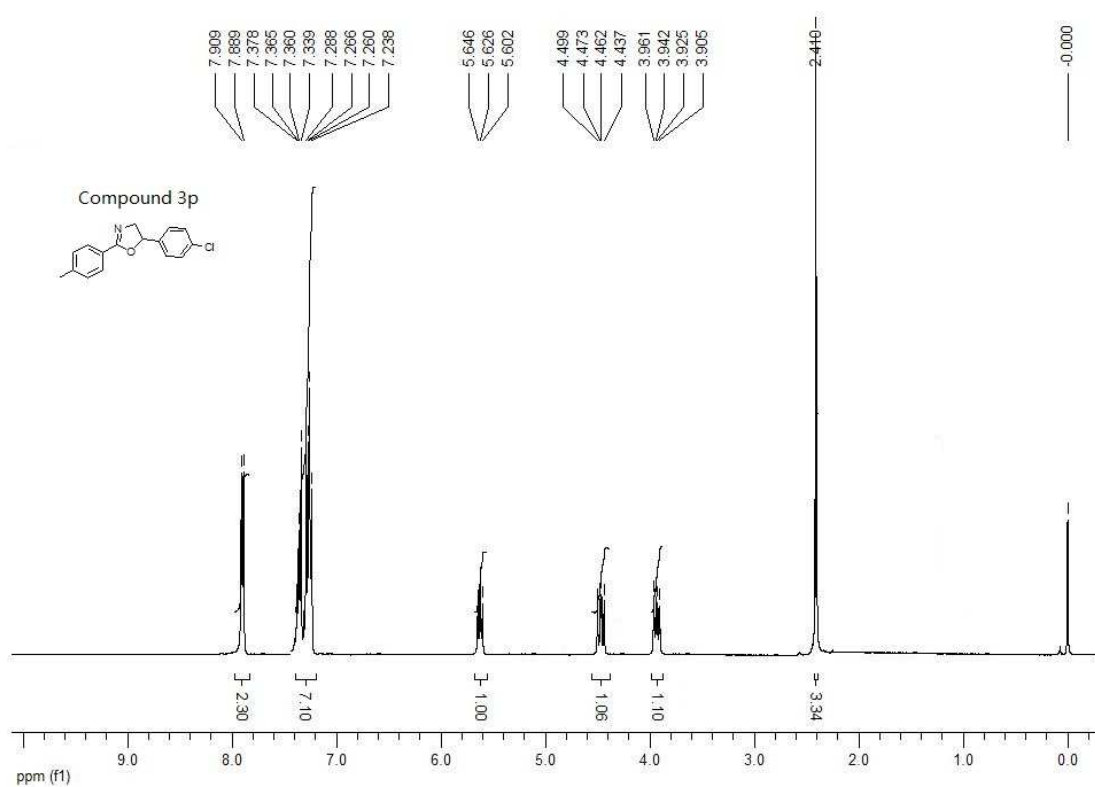
5-(benzo[d][1,3]dioxol-5-yl)-2-(4-methoxyphenyl)-4,5-dihydrooxazole (**3n**):



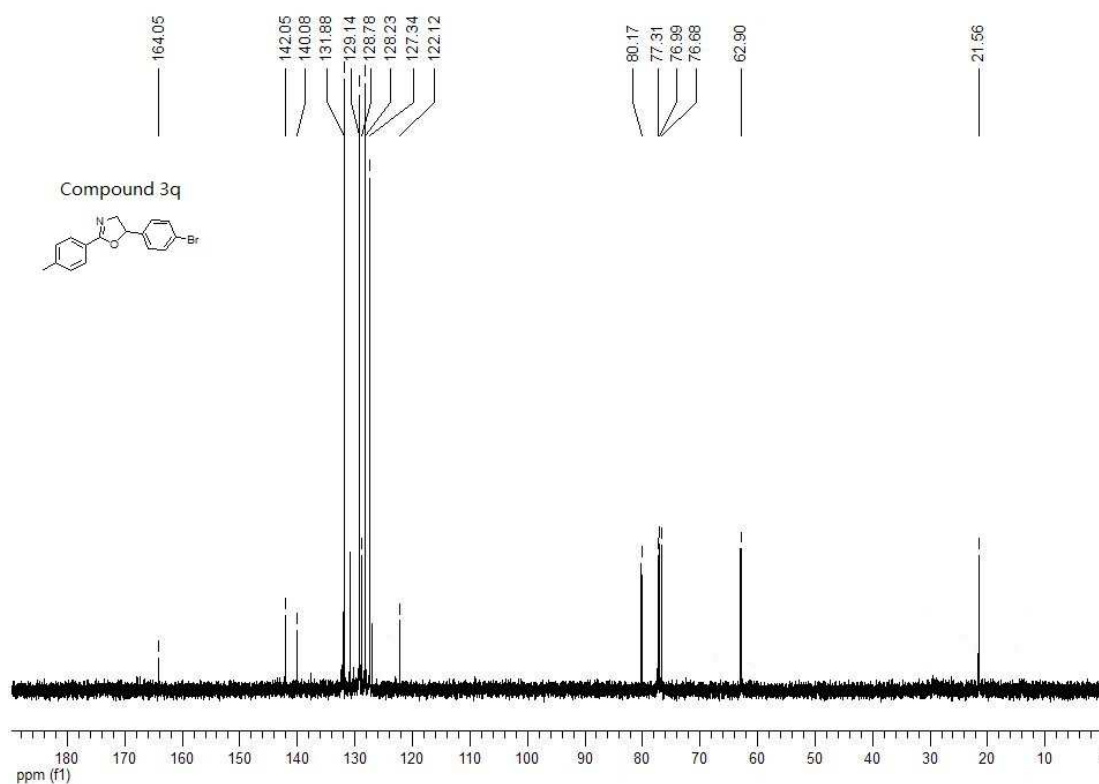
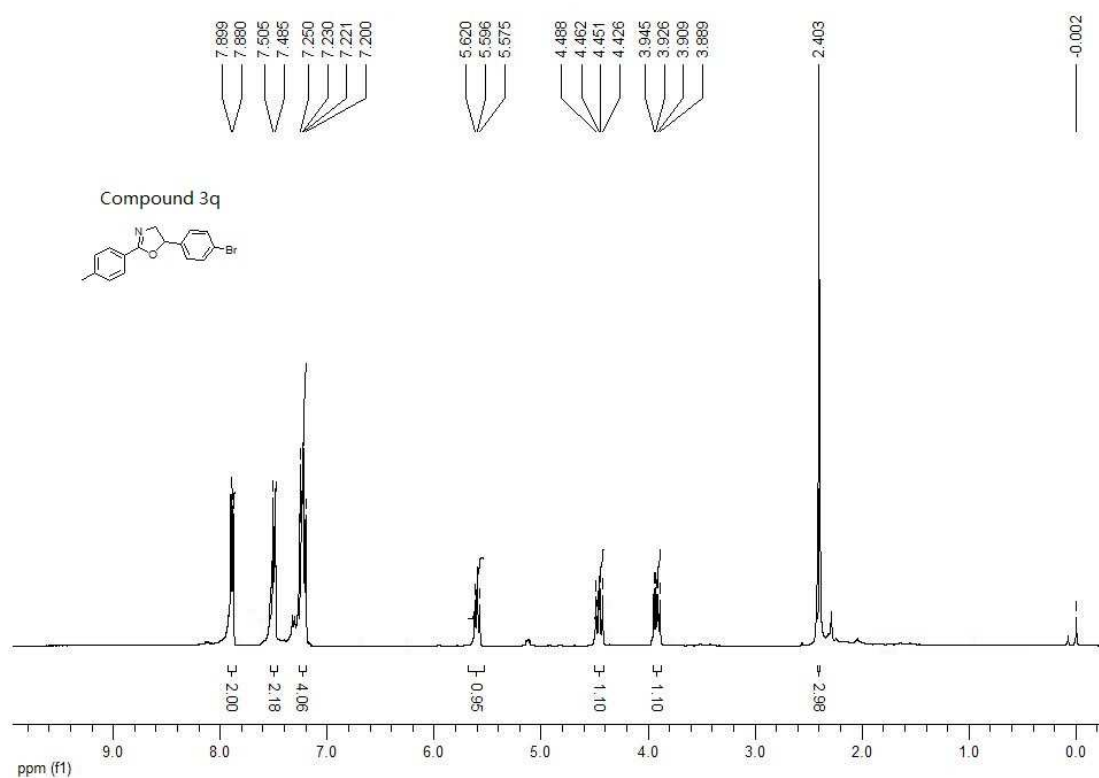
5-(benzo[d][1,3]dioxol-5-yl)-2-(3,4-dimethoxyphenyl)-4,5-dihydrooxazole (**3o**):



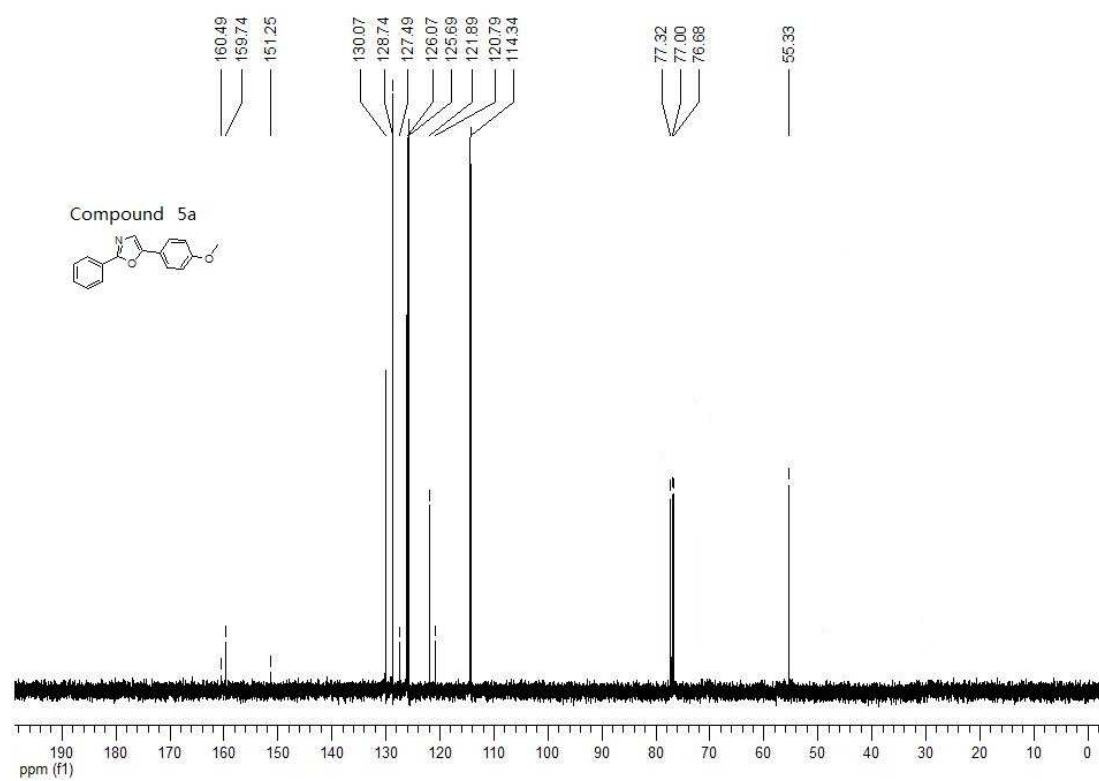
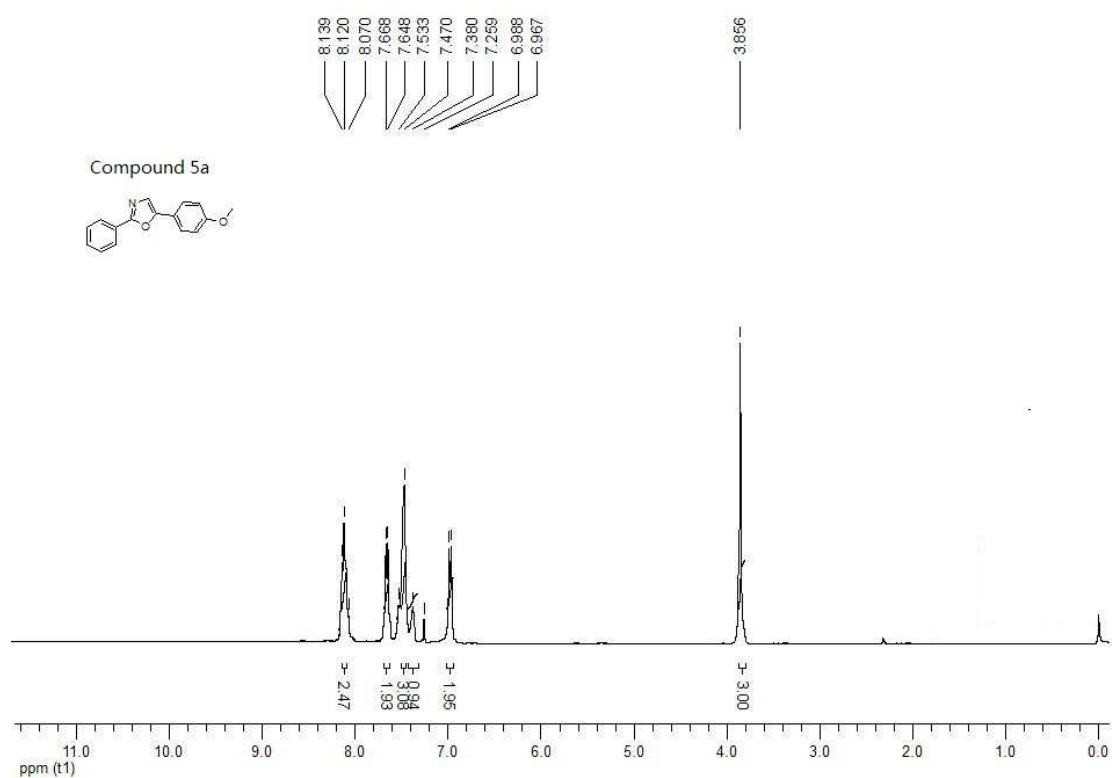
5-(4-chlorophenyl)-2-p-tolyl-4,5-dihydrooxazole (**3p**):



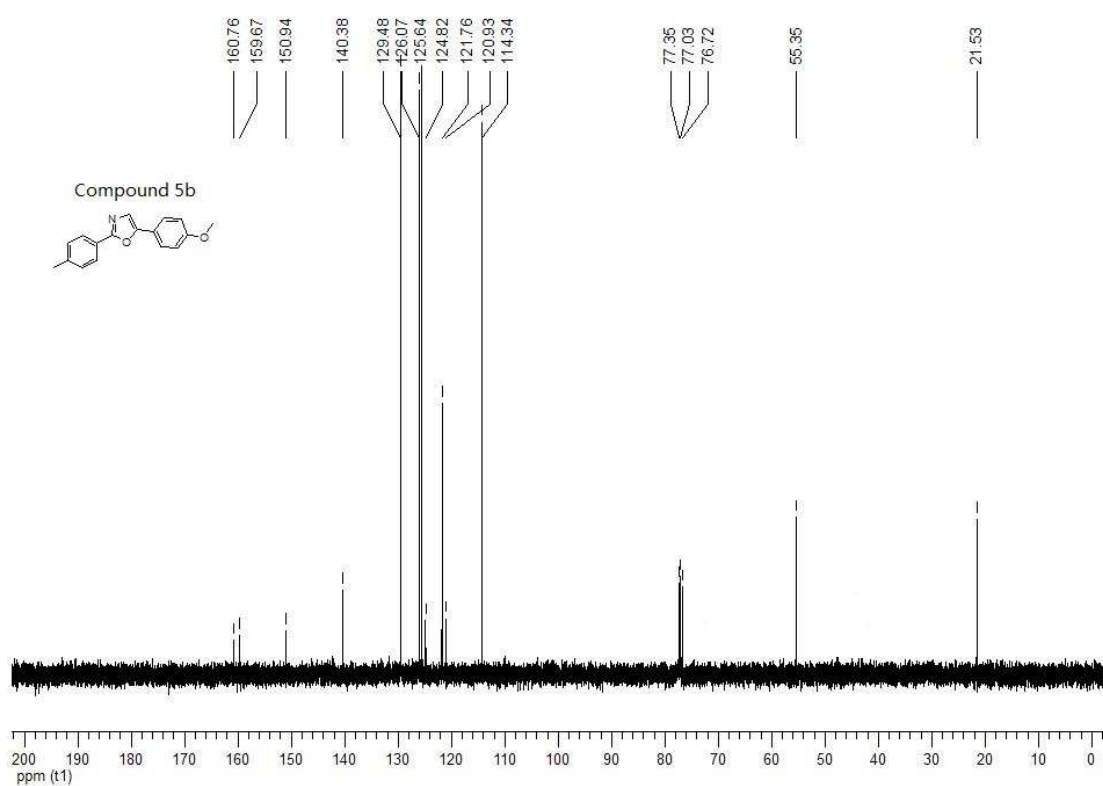
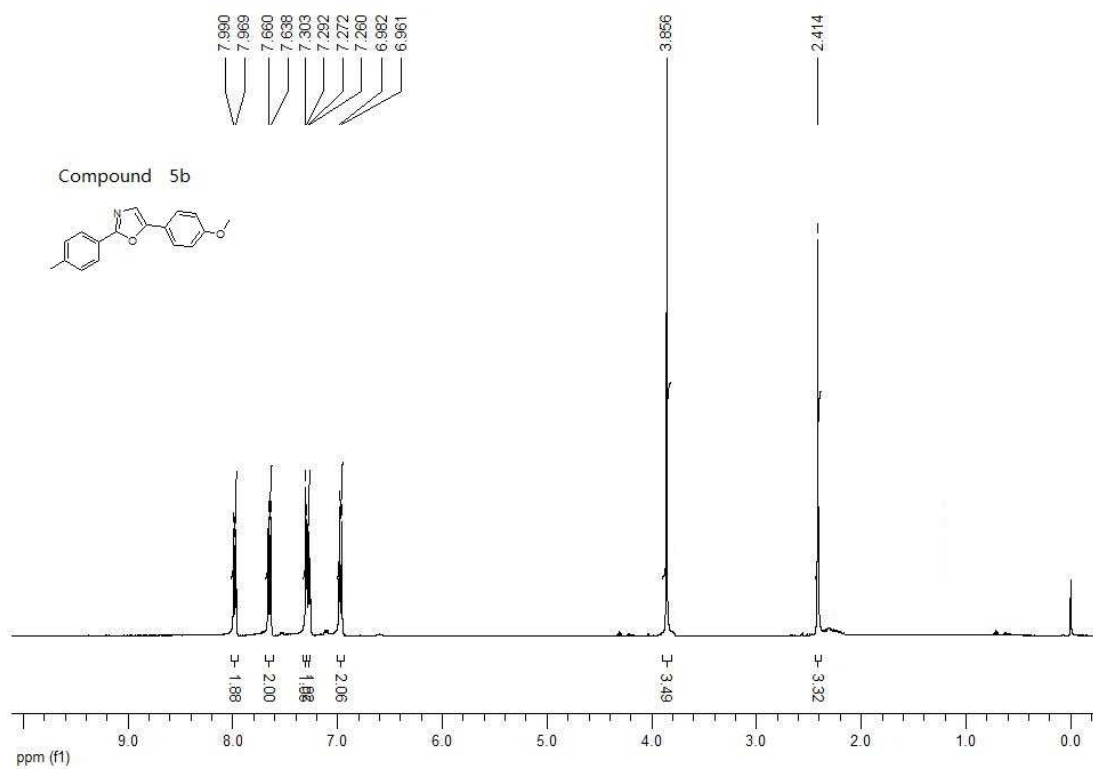
5-(4-bromophenyl)-2-p-tolyl-4,5-dihydrooxazole (**3q**):



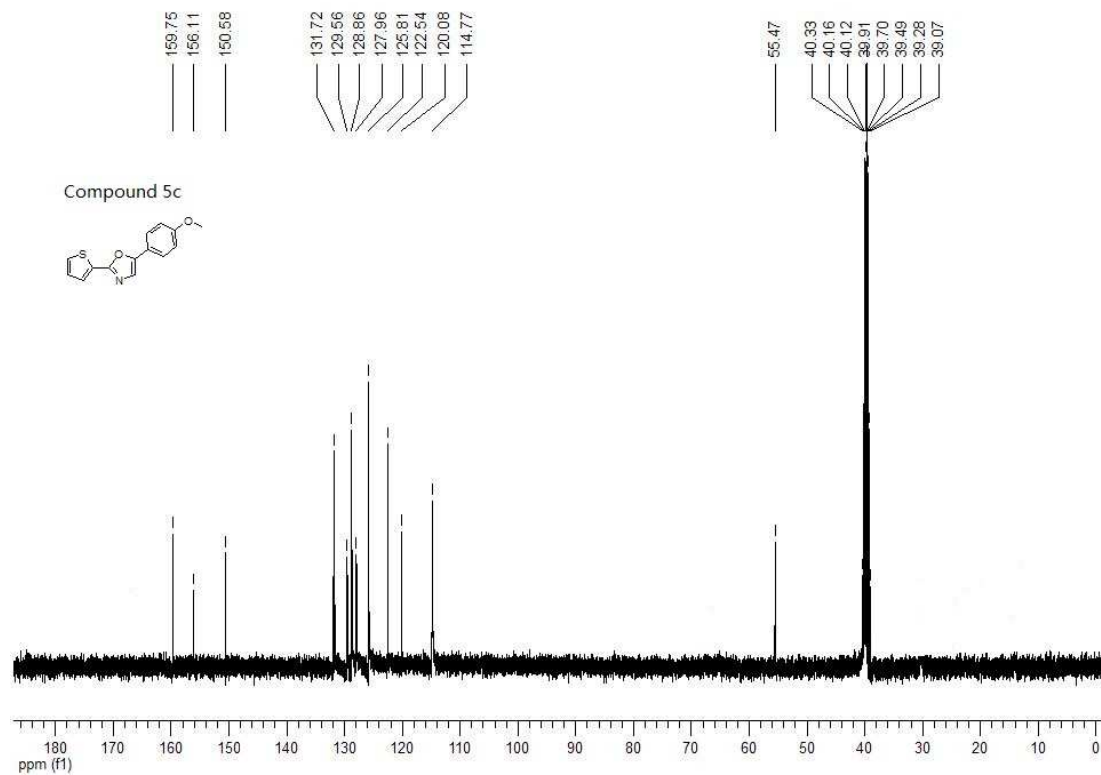
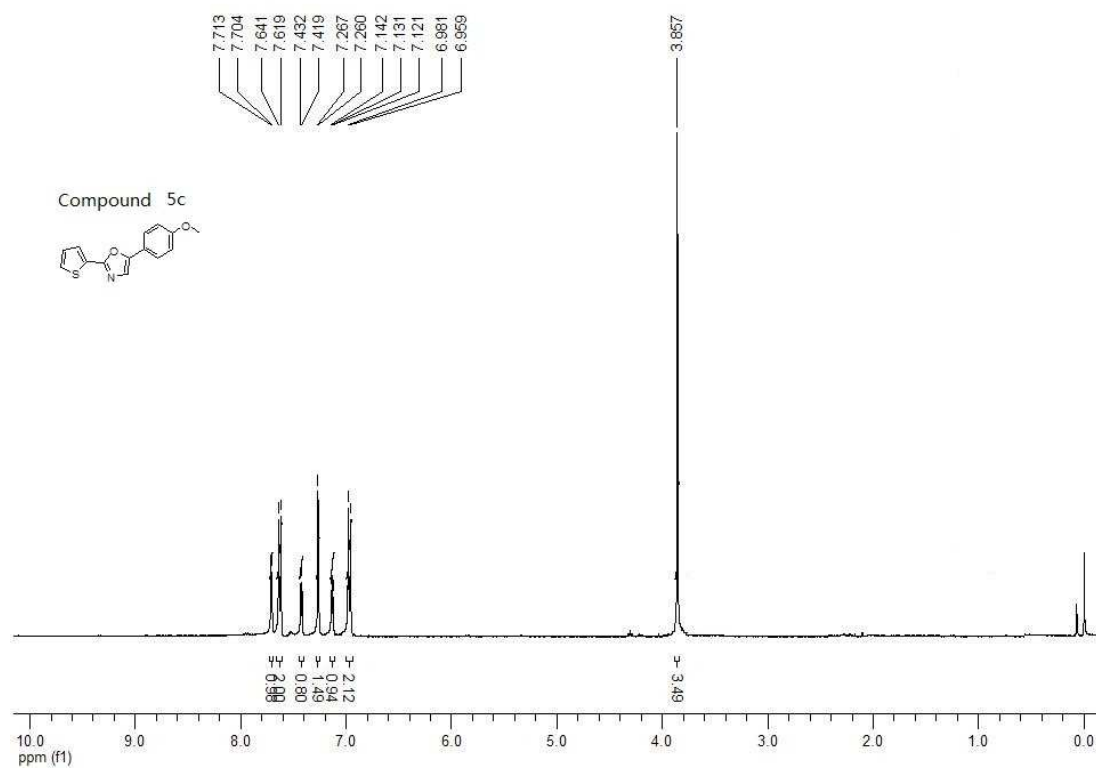
5-(4-methoxyphenyl)-2-phenyloxazole (**5a**):



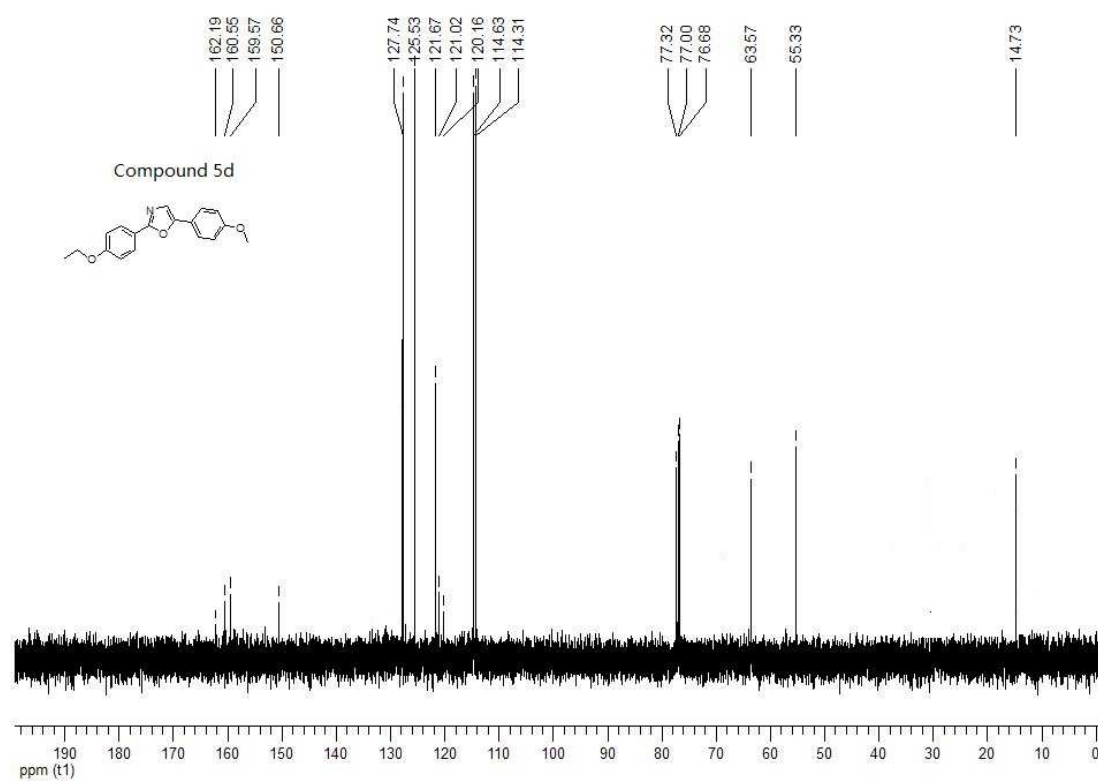
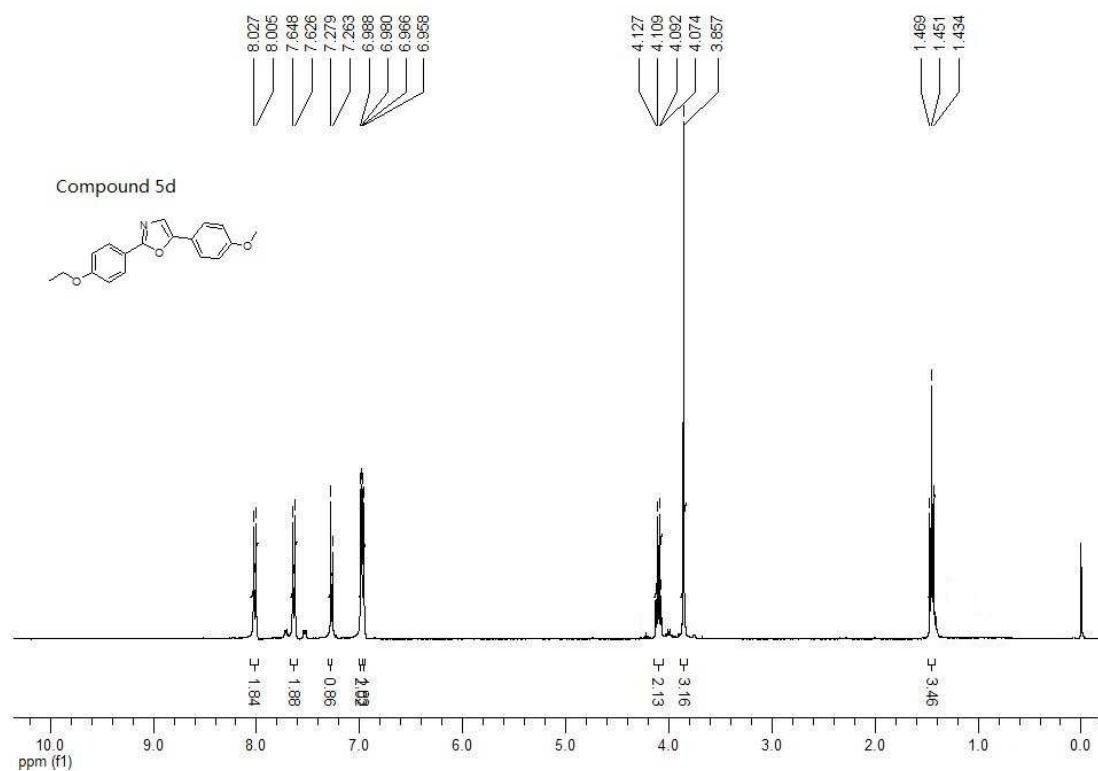
5-(4-methoxyphenyl)-2-p-tolylloxazole (**5b**):



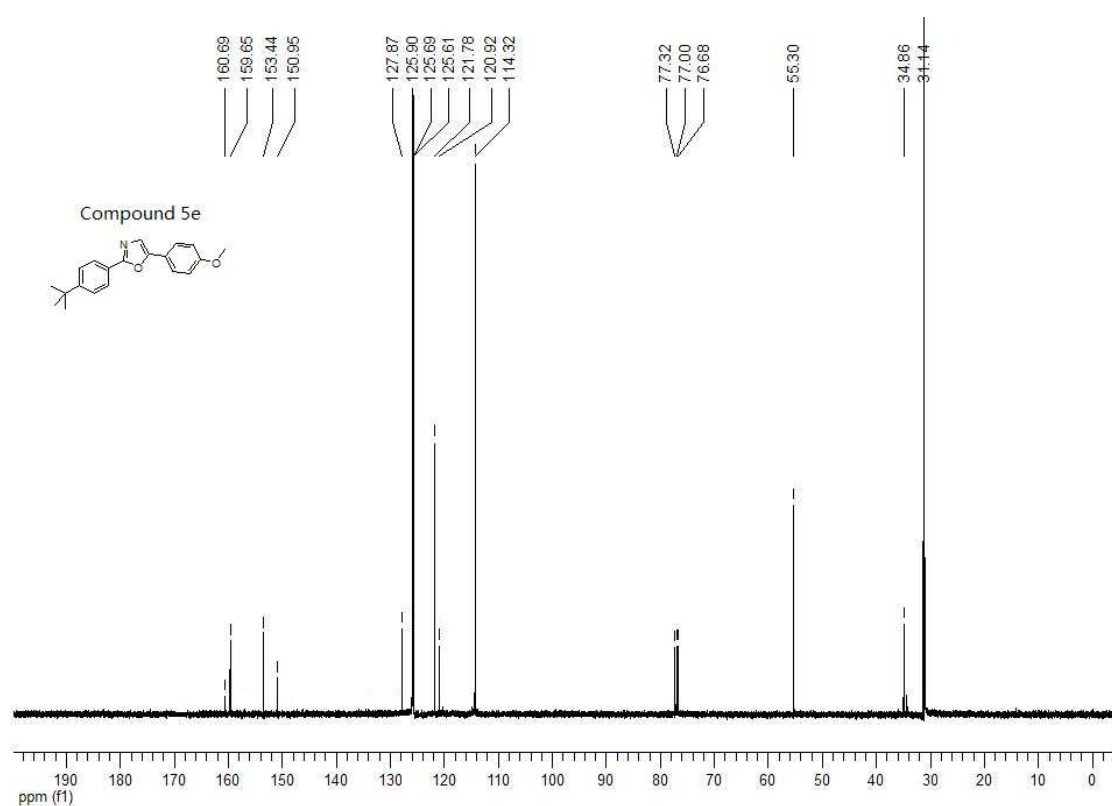
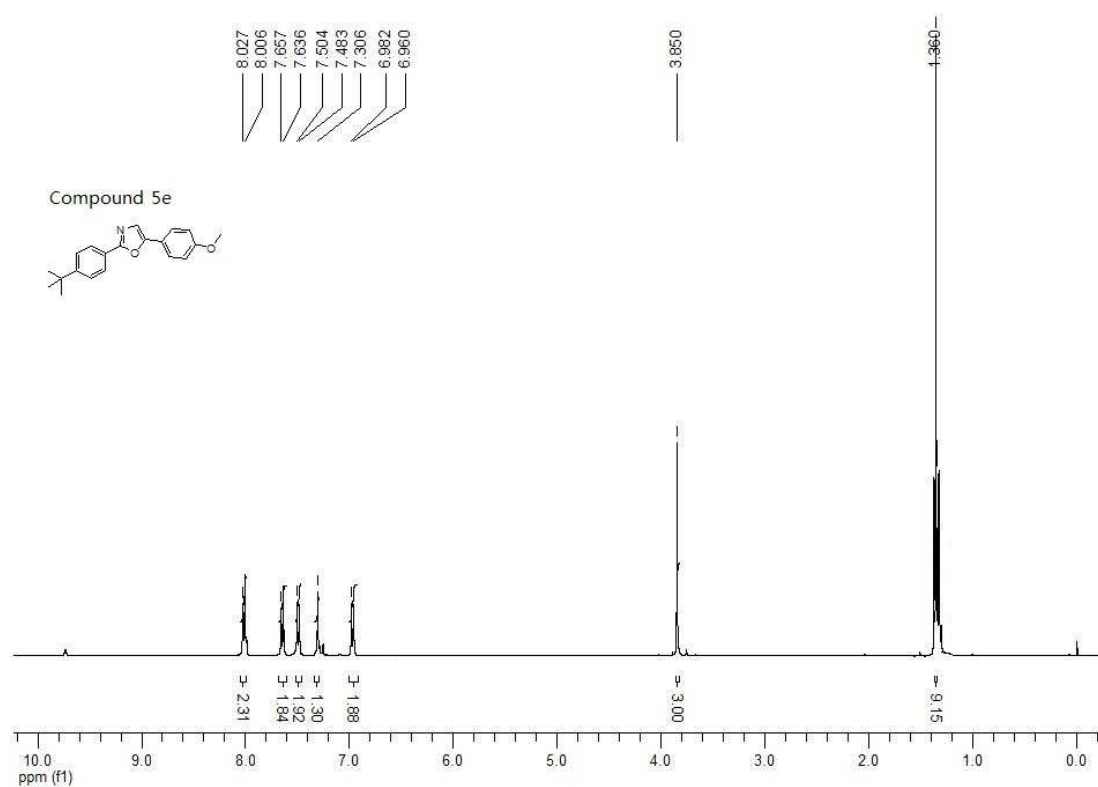
5-(4-methoxyphenyl)-2-(thiophen-2-yl)oxazole (**5c**):



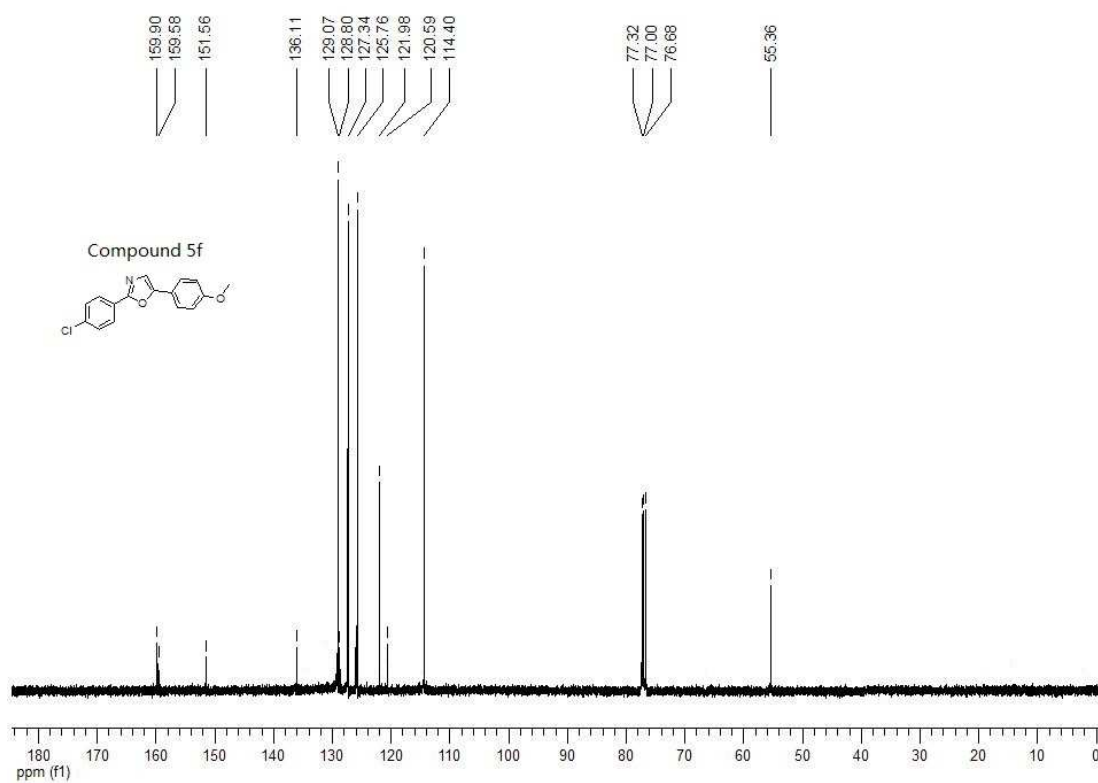
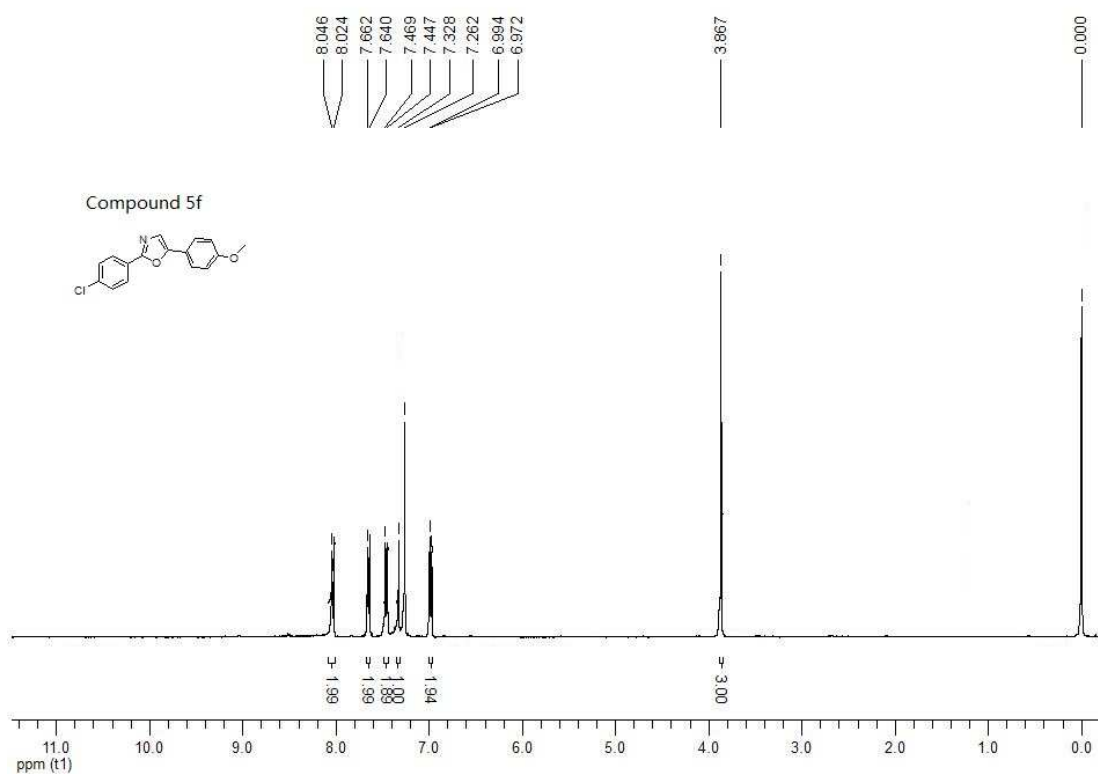
2-(4-ethoxyphenyl)-5-(4-methoxyphenyl)oxazole (**5d**):



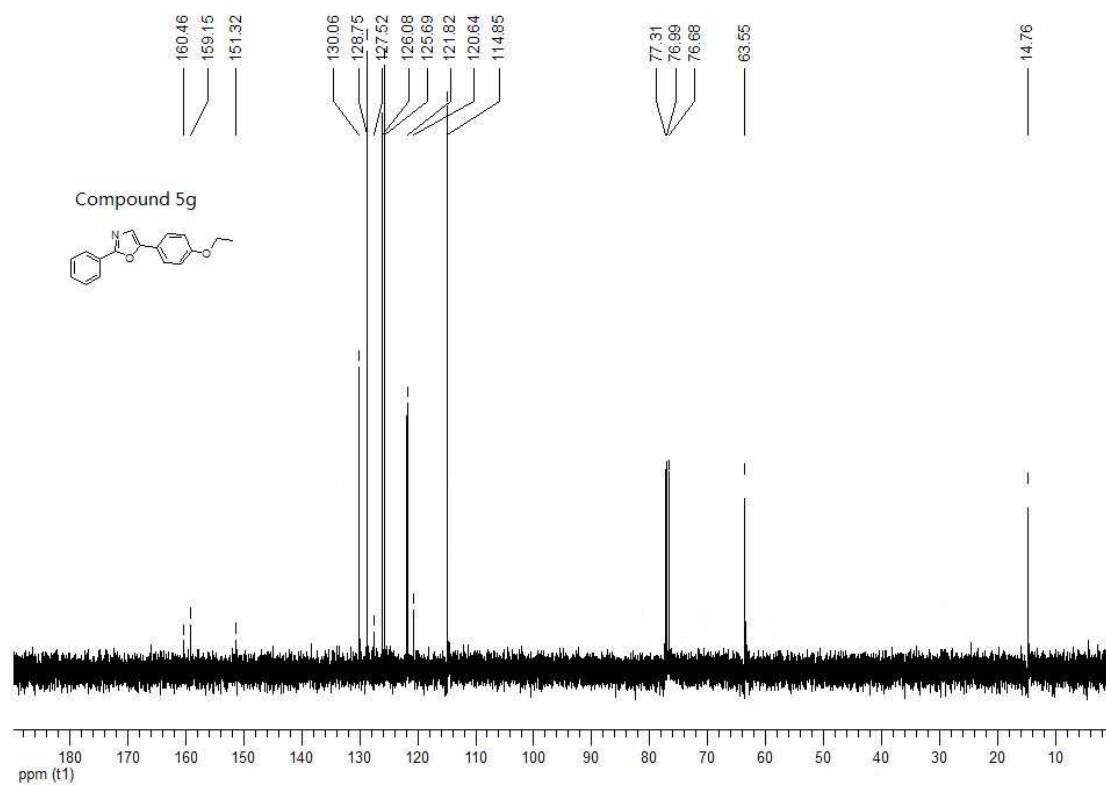
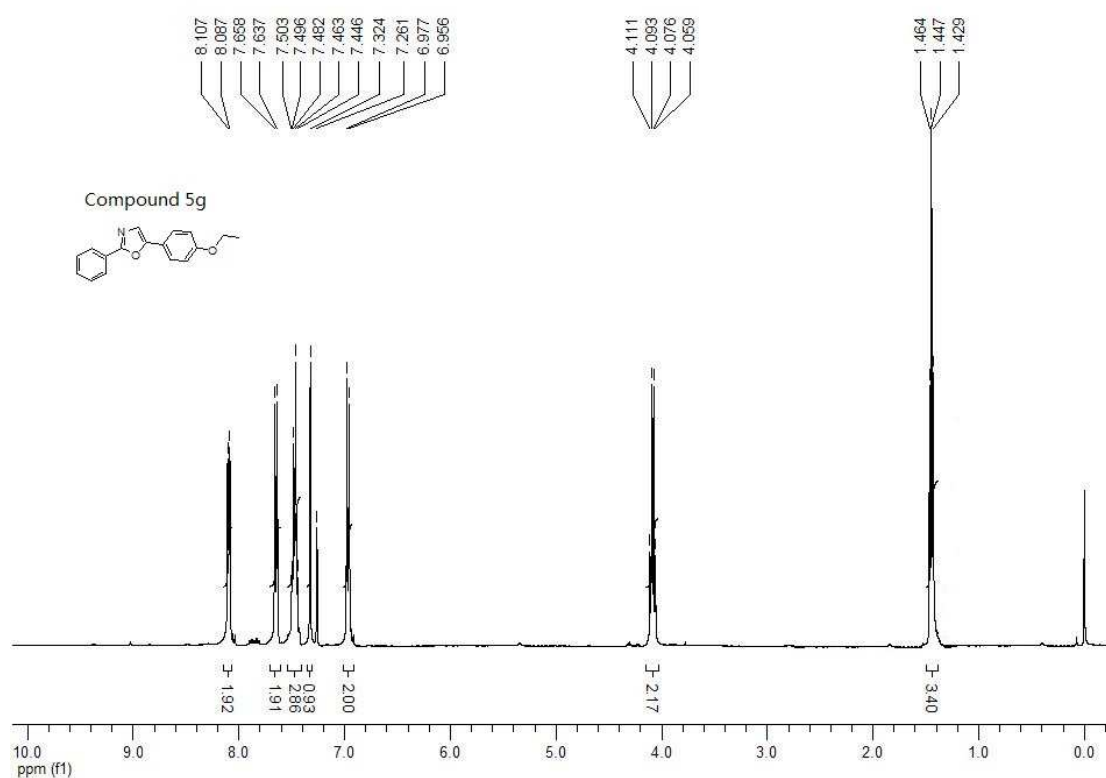
2-(4-tert-butylphenyl)-5-(4-methoxyphenyl)oxazole (**5e**):



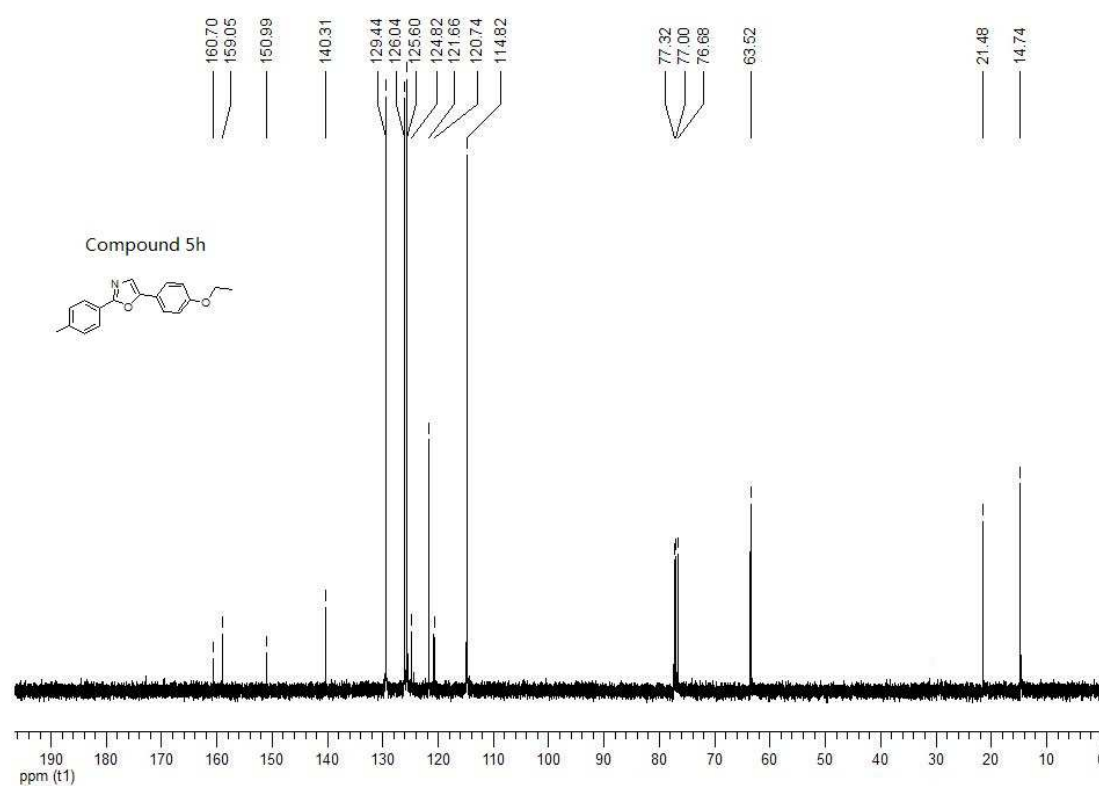
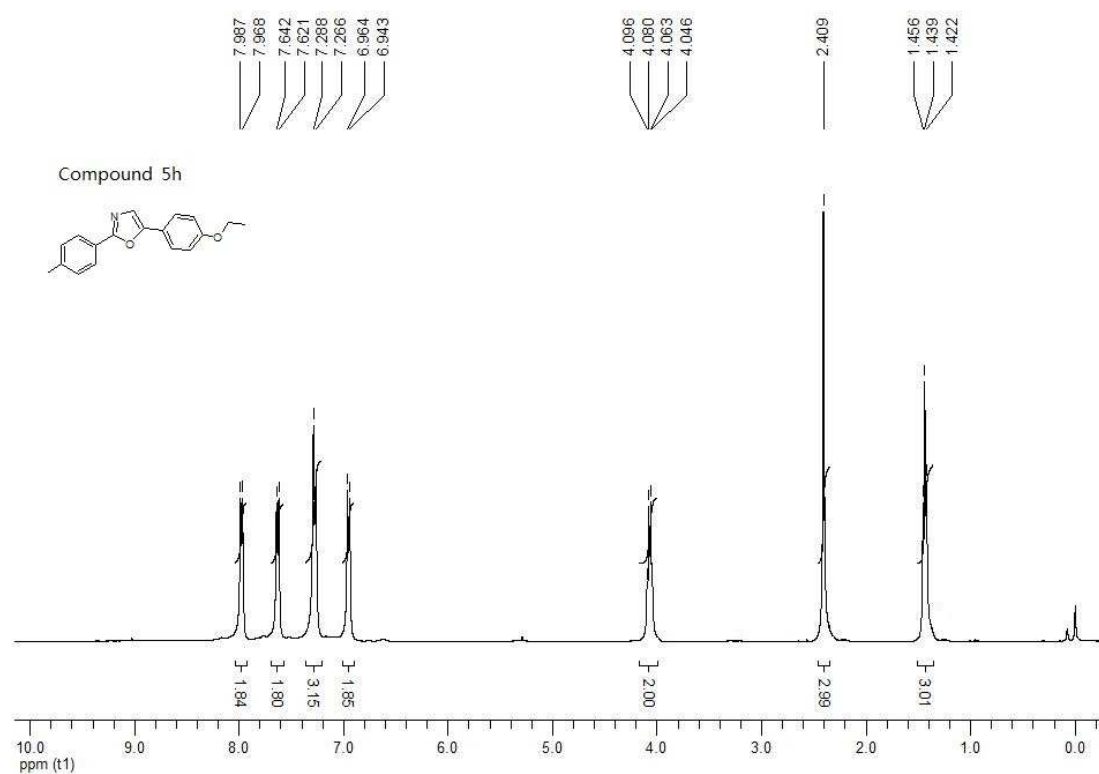
2-(4-chlorophenyl)-5-(4-methoxyphenyl)oxazole (**5f**):



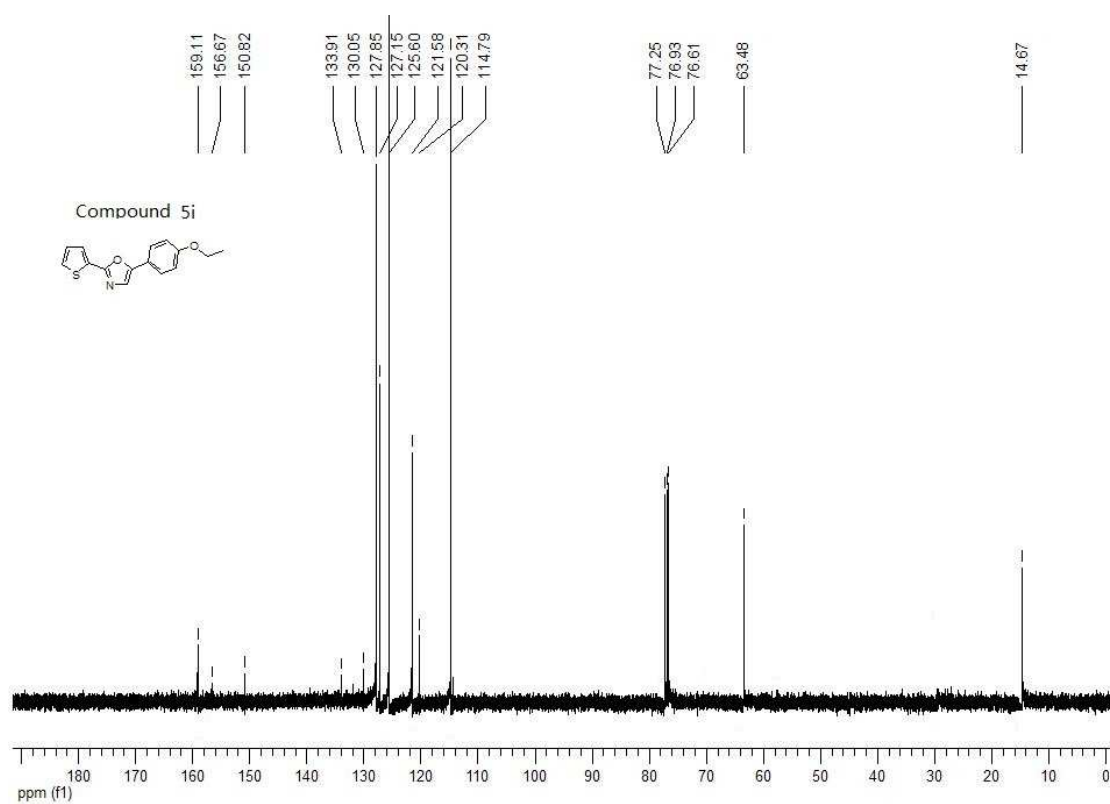
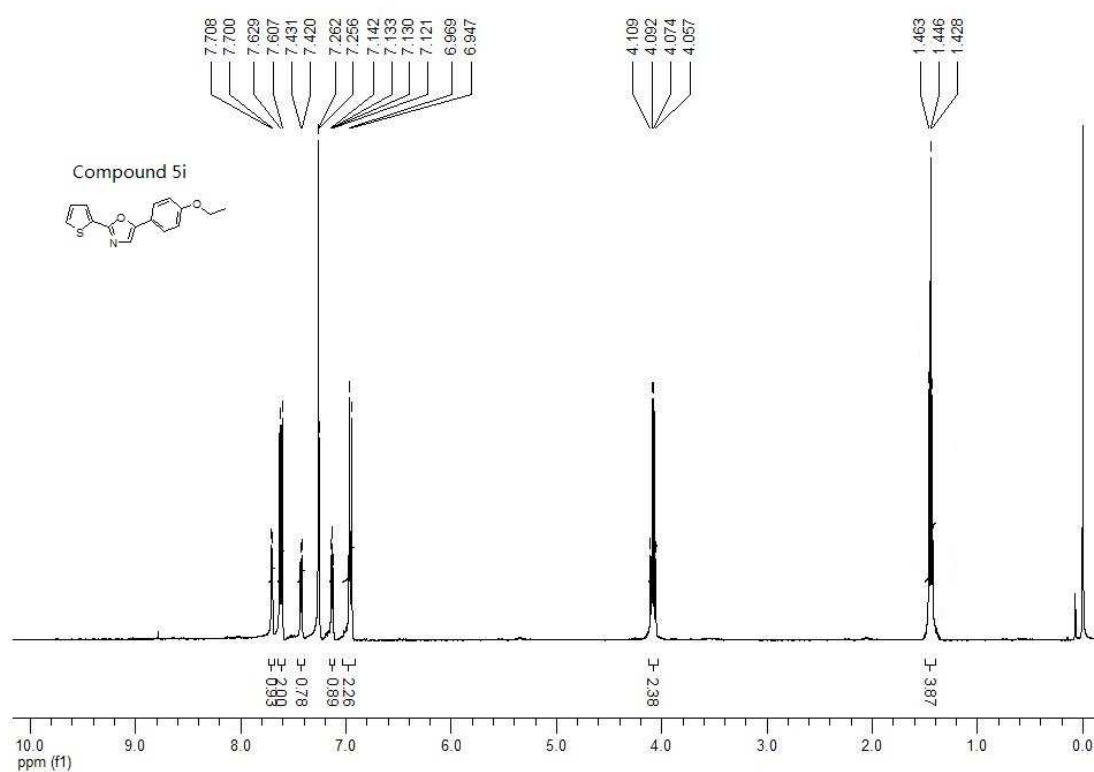
5-(4-ethoxyphenyl)-2-phenyloxazole (**5g**):



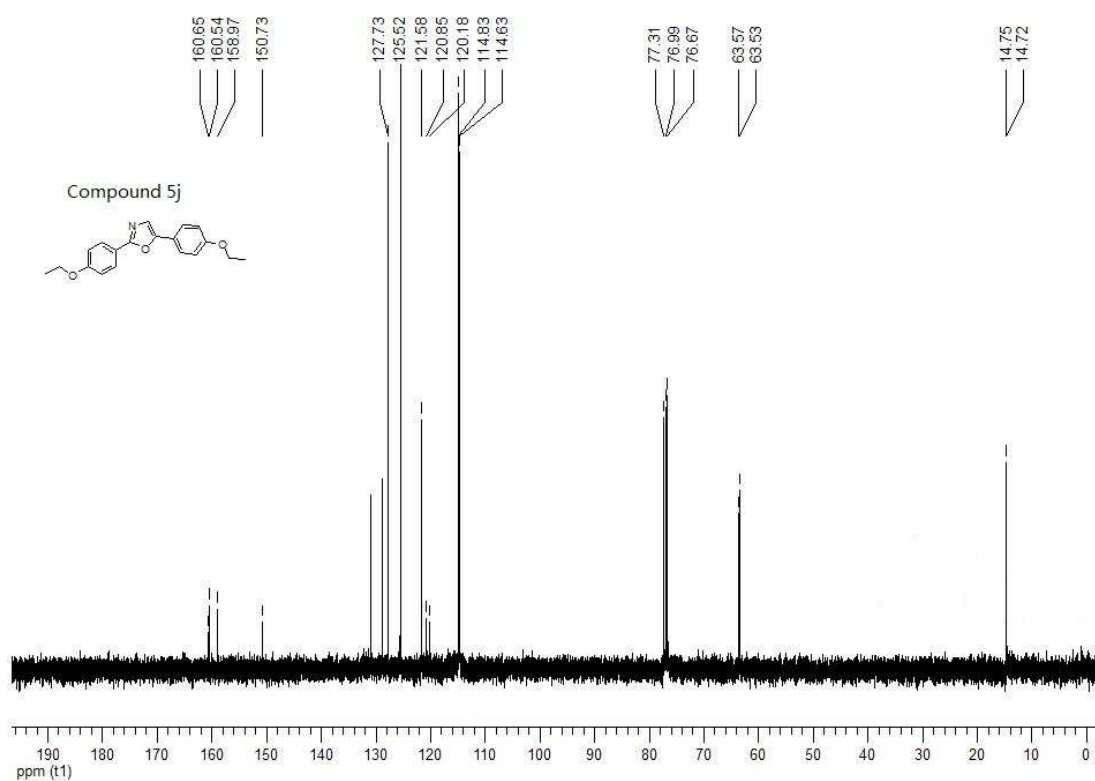
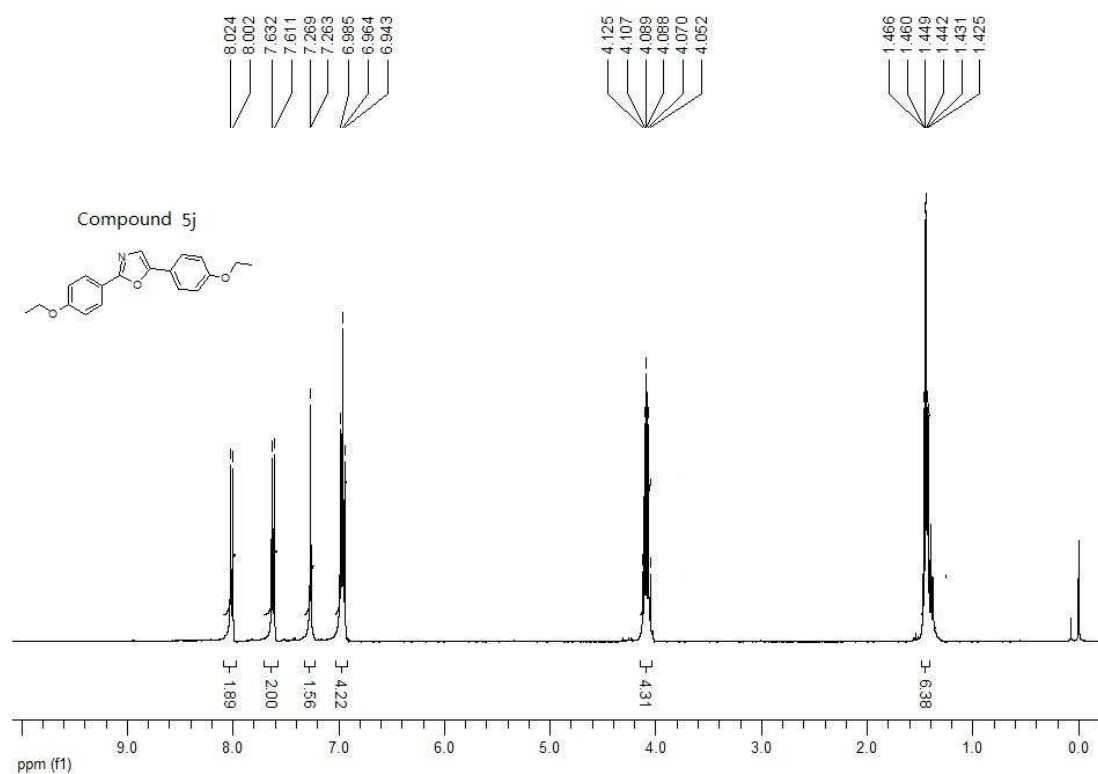
5-(4-ethoxyphenyl)-2-p-tolylloxazole (**5h**):



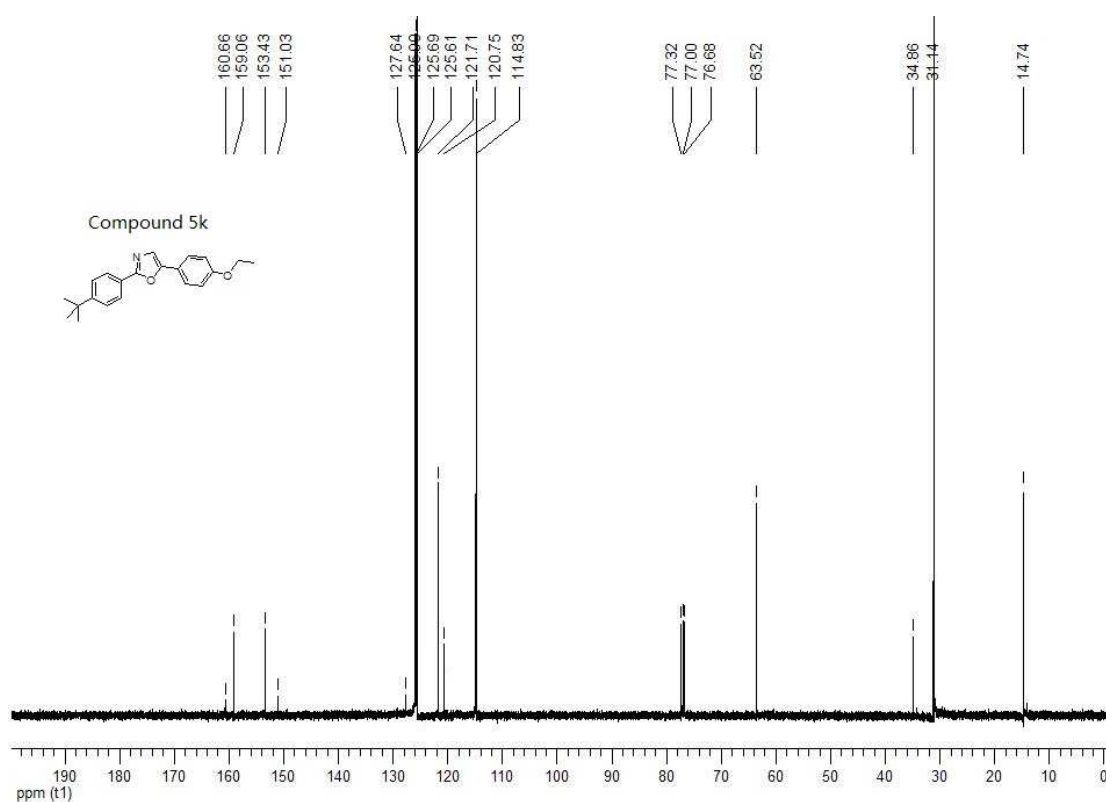
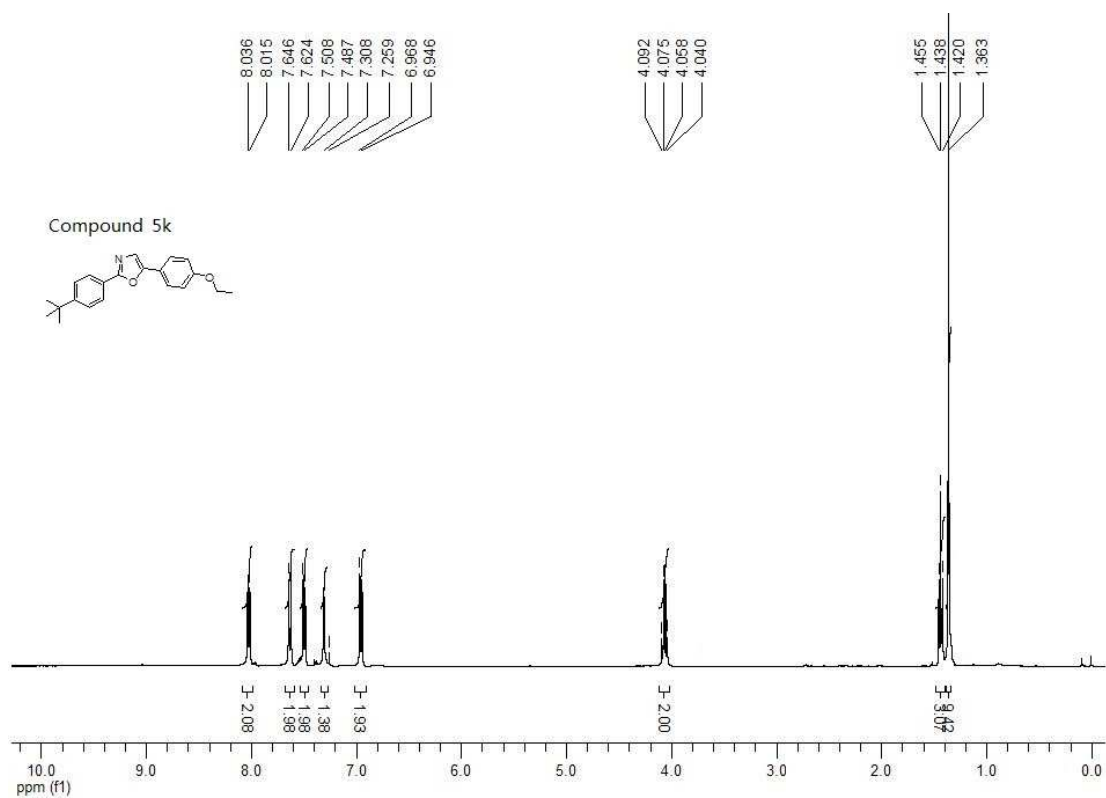
5-(4-ethoxyphenyl)-2-(thiophen-2-yl) oxazole (**5i**):



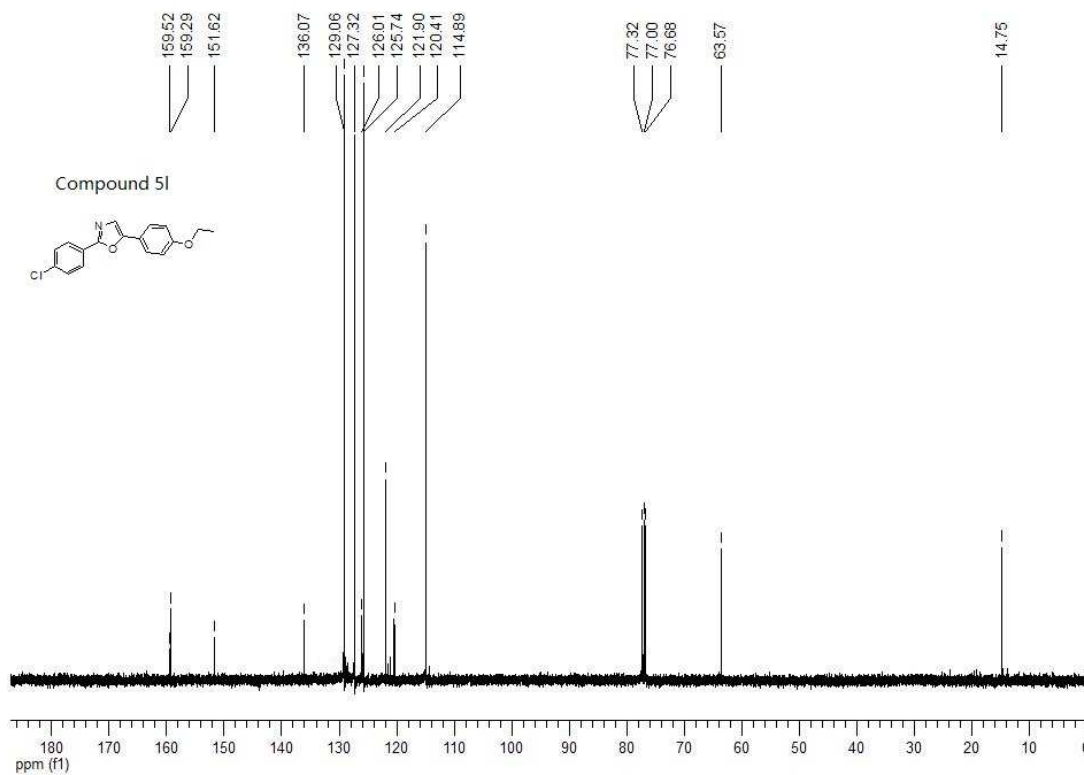
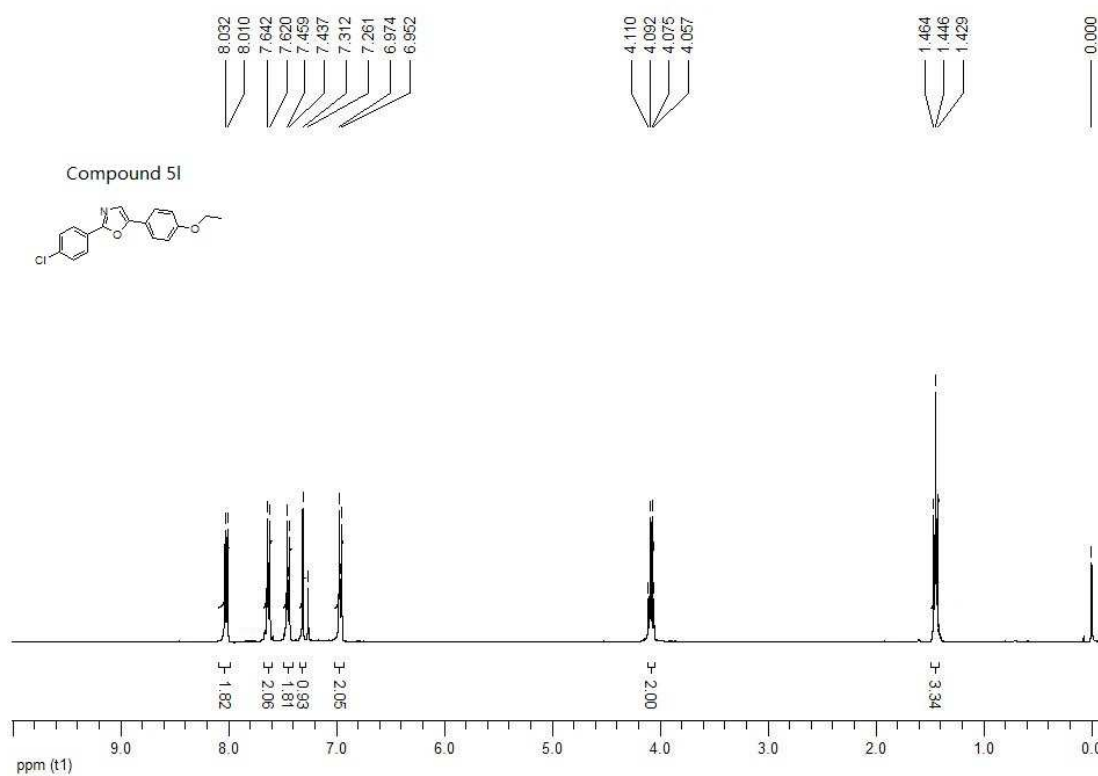
2,5-bis(4-ethoxyphenyl) oxazole (**5j**):



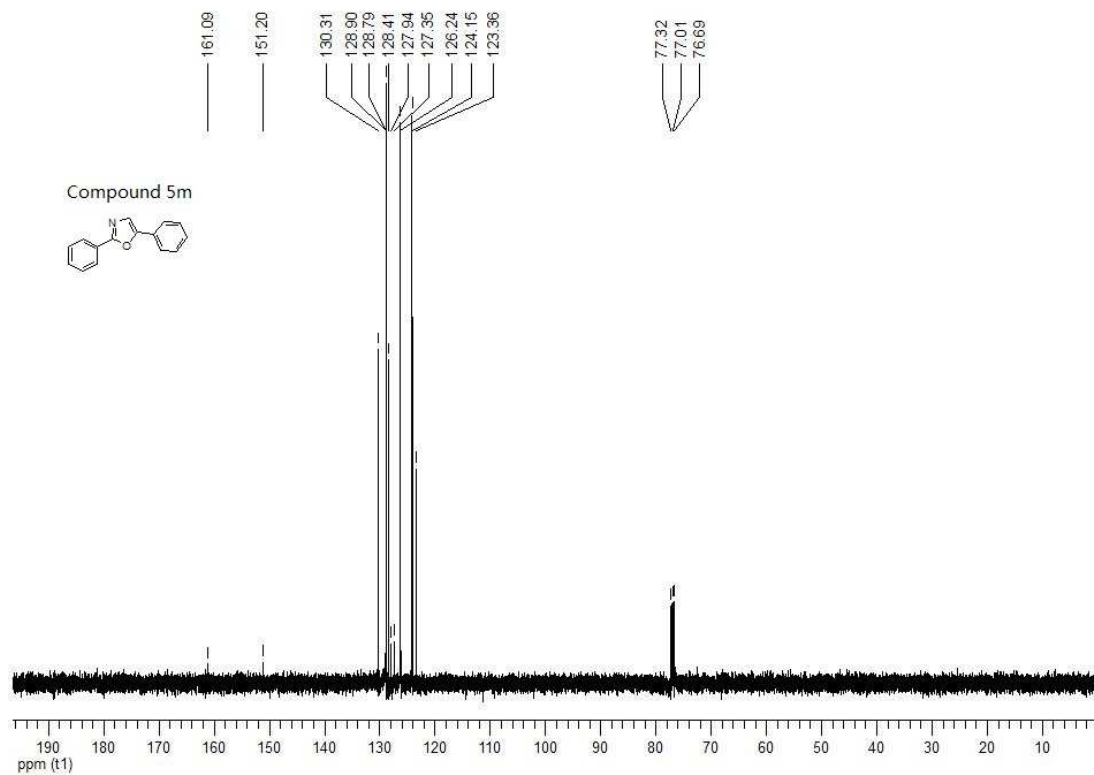
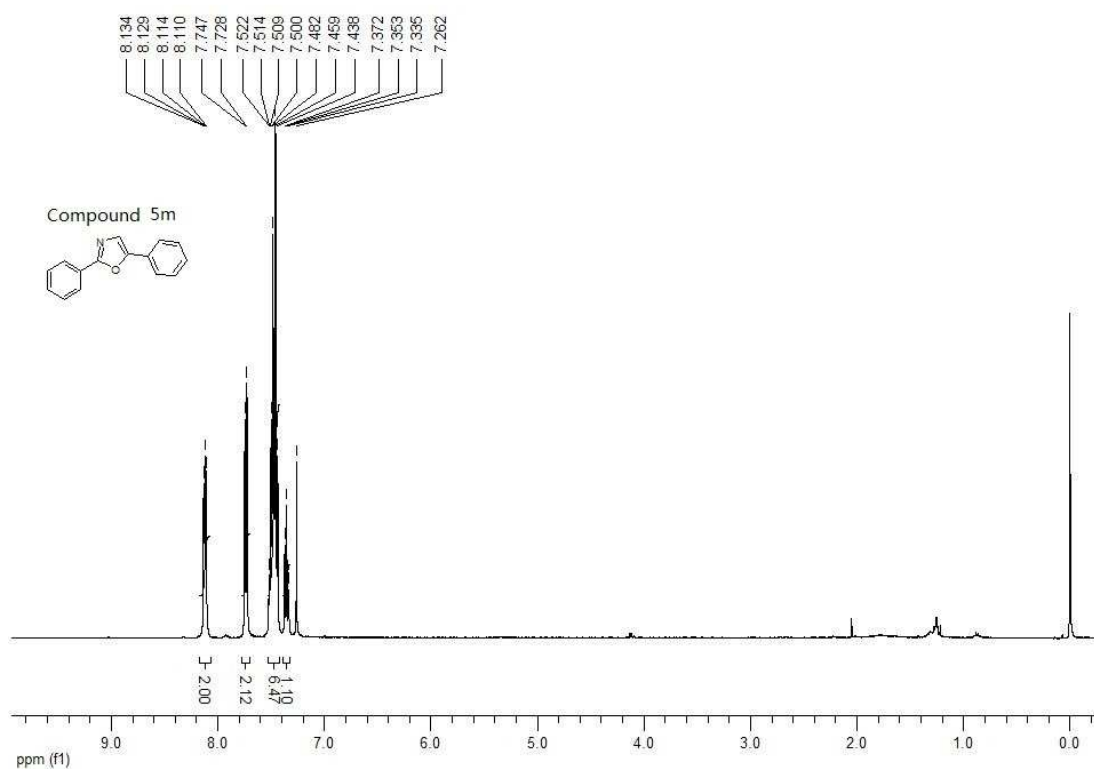
2-(4-tert-butylphenyl)-5-(4-ethoxyphenyl)oxazole (**5k**):



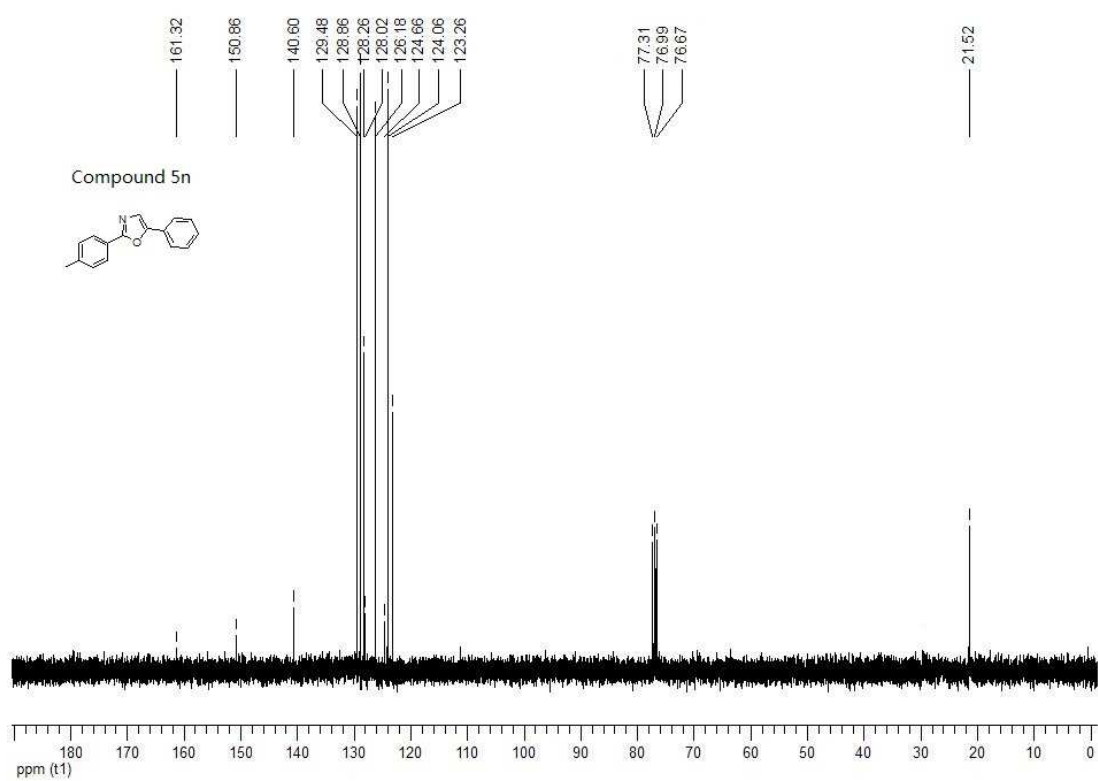
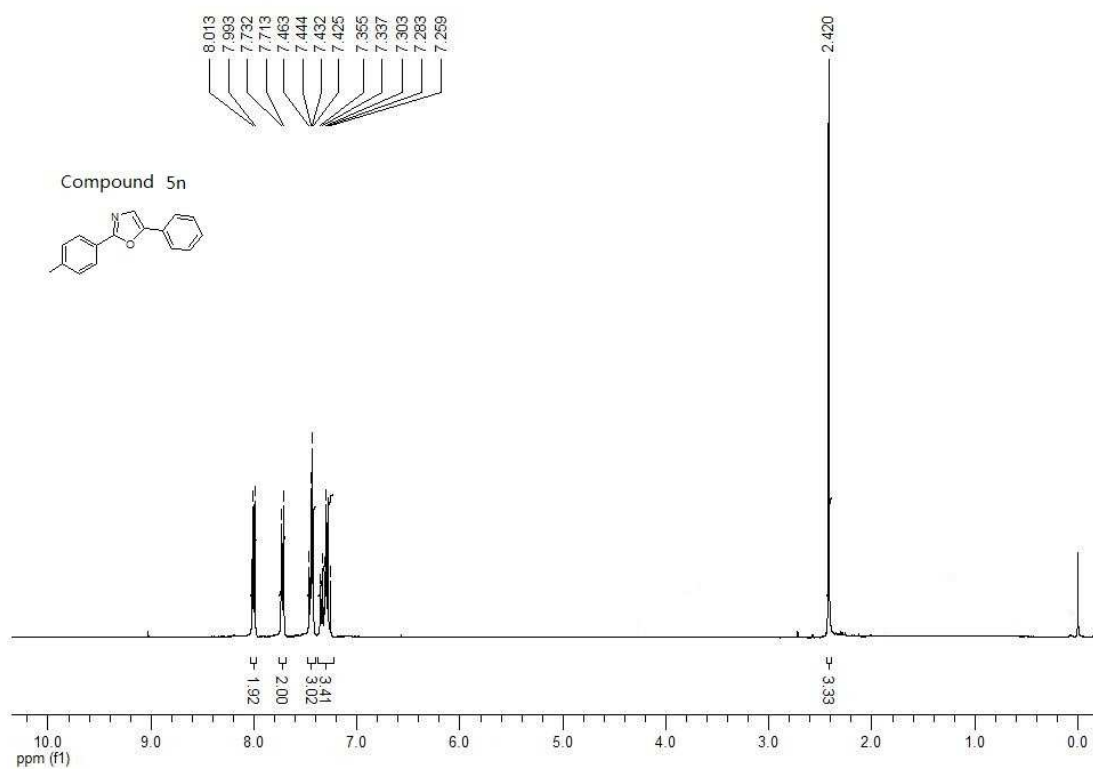
2-(4-chlorophenyl)-5-(4-ethoxyphenyl)oxazole (**5I**):



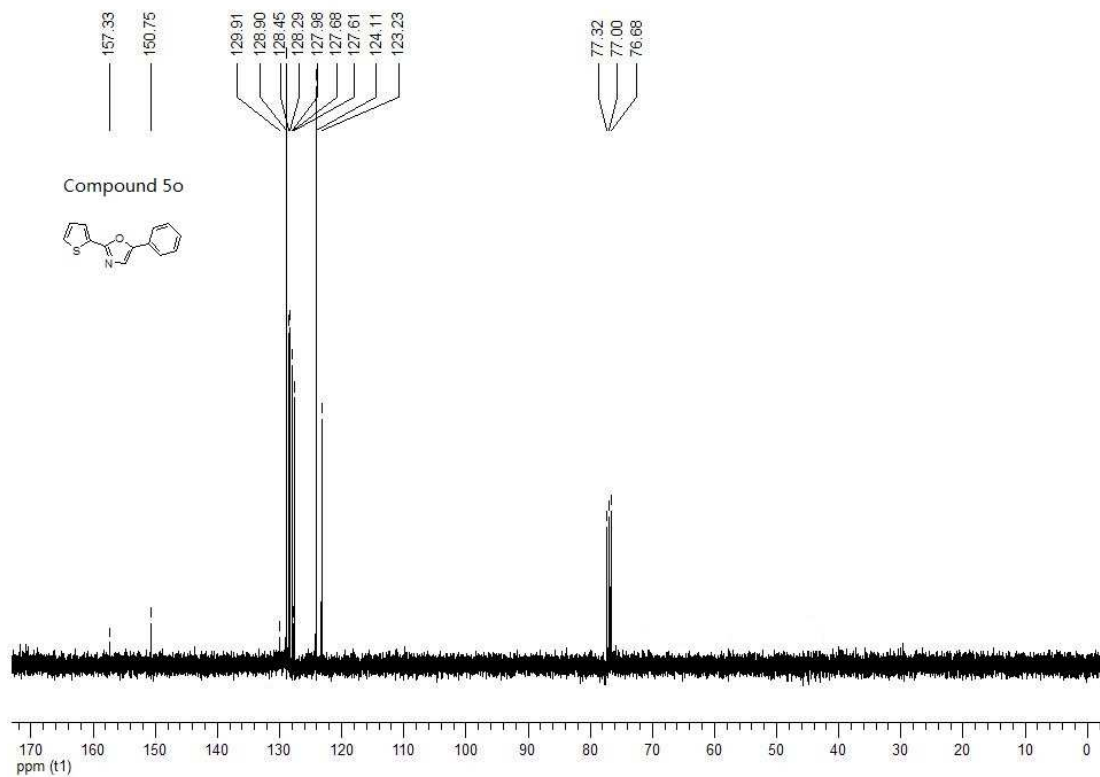
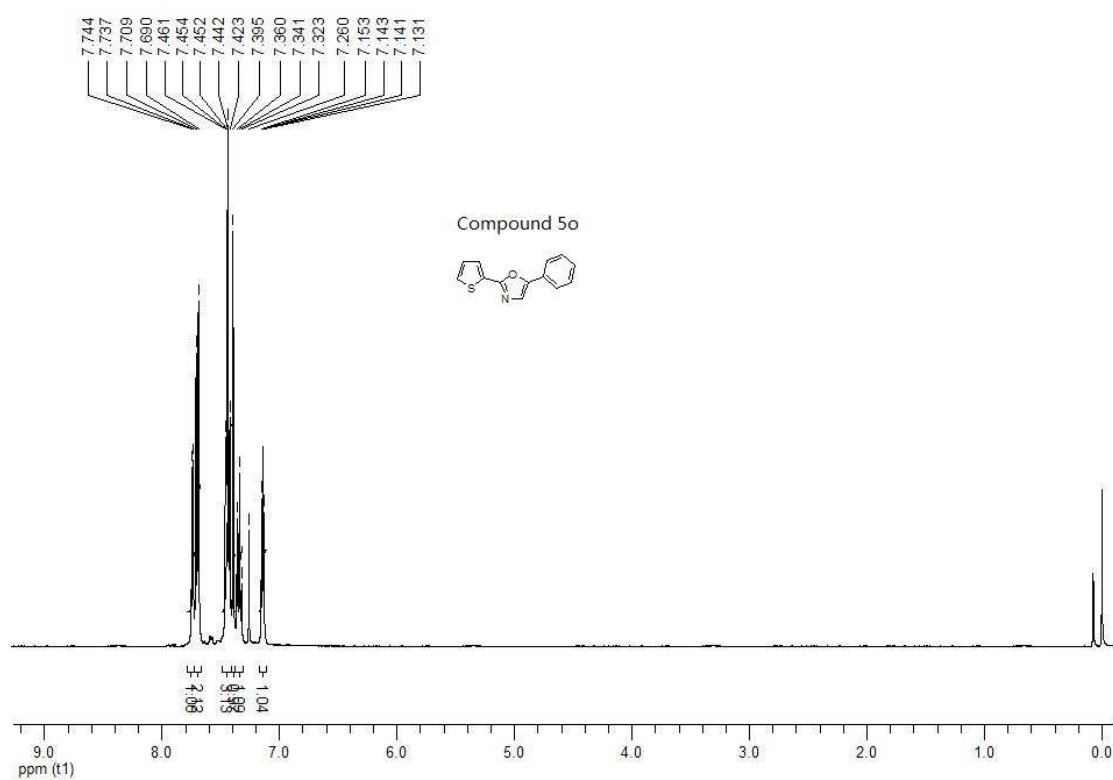
2,5-diphenyloxazole (**5m**):

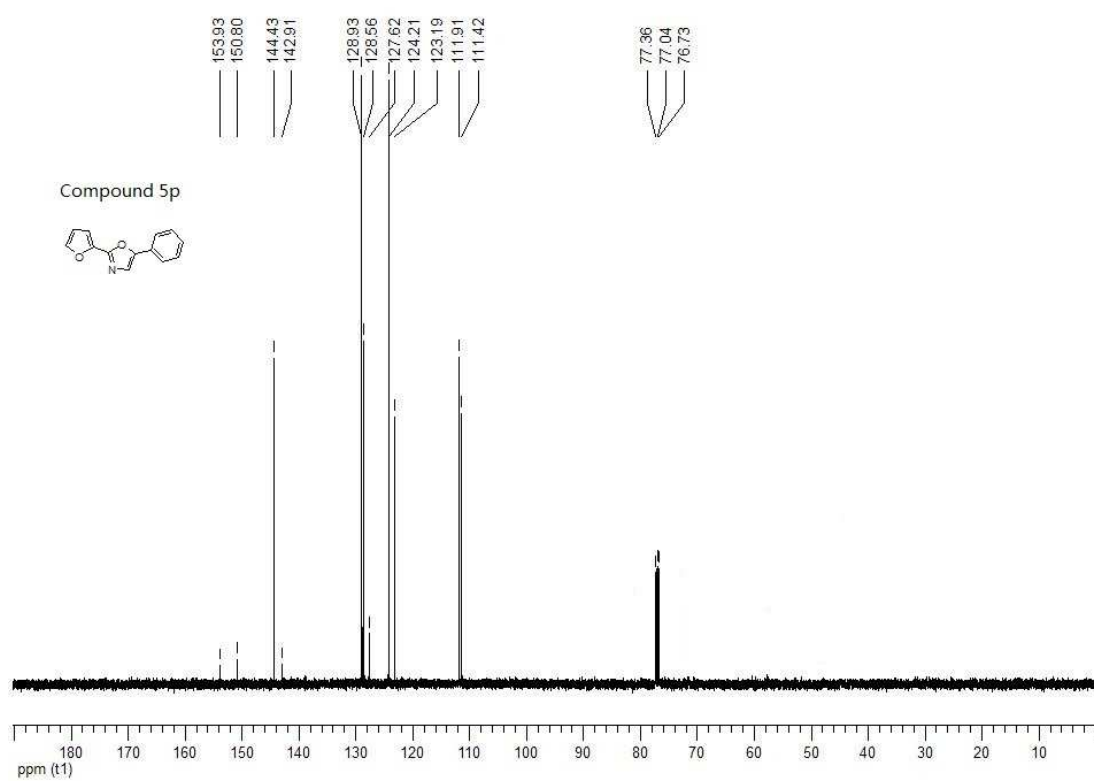
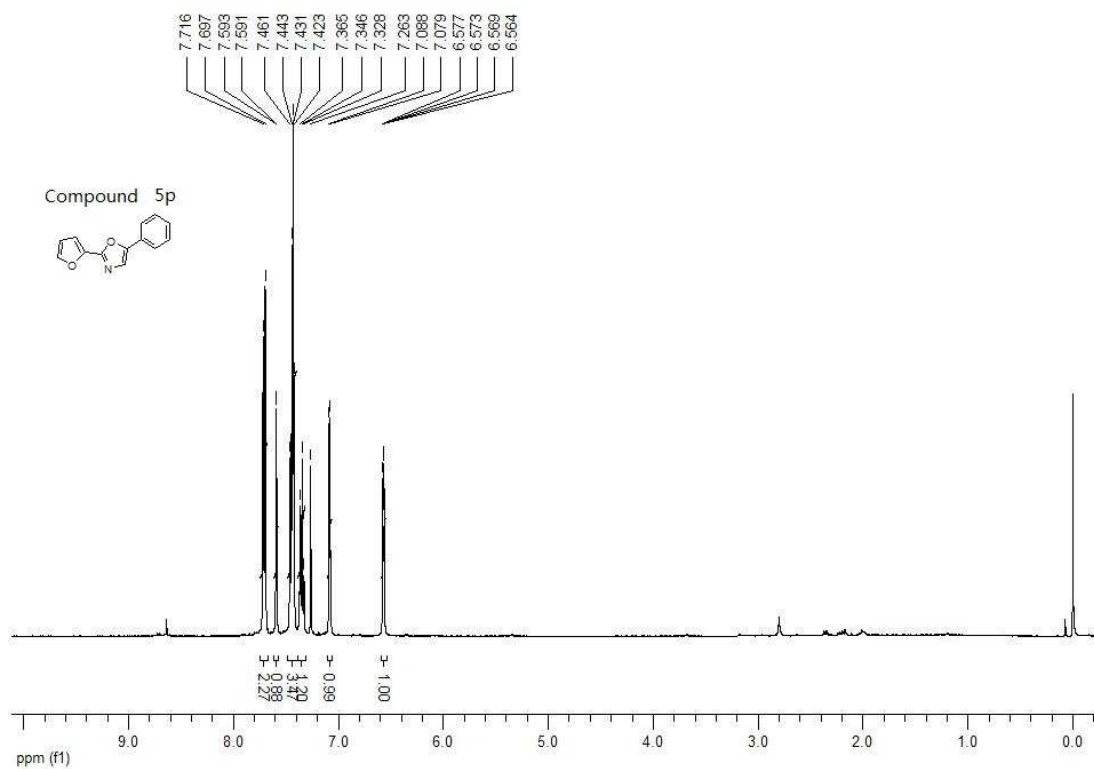


5-phenyl-2-p-tolylloxazole (**5n**):

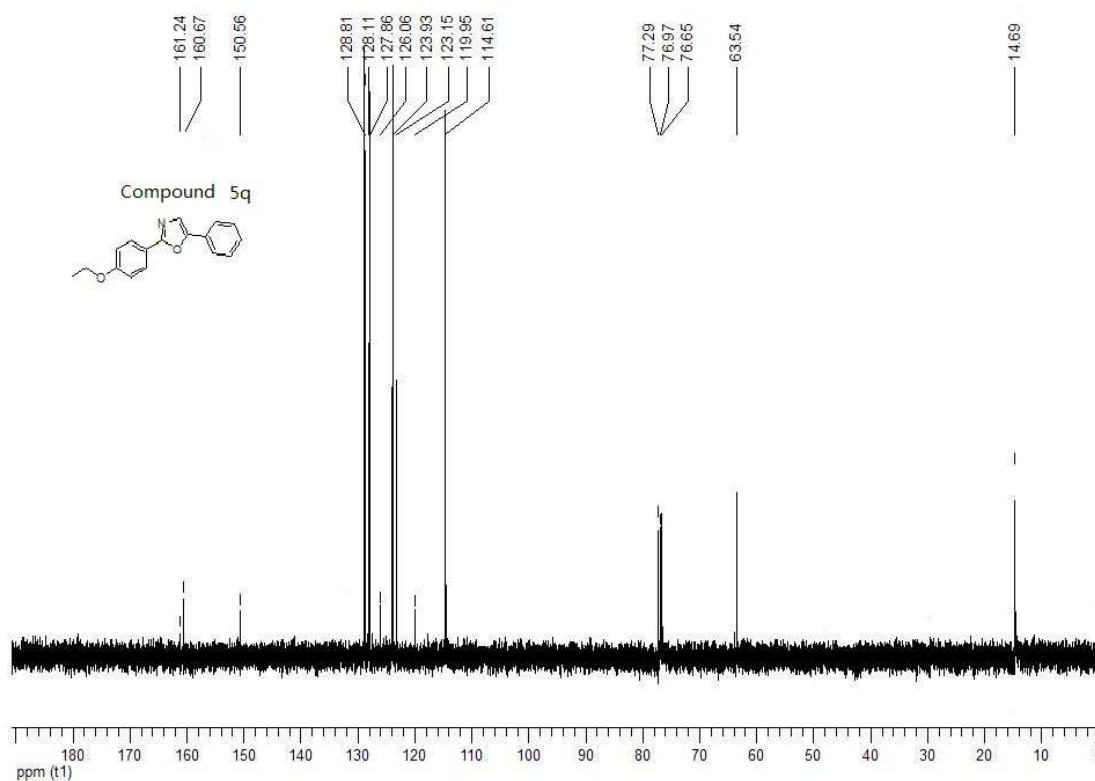
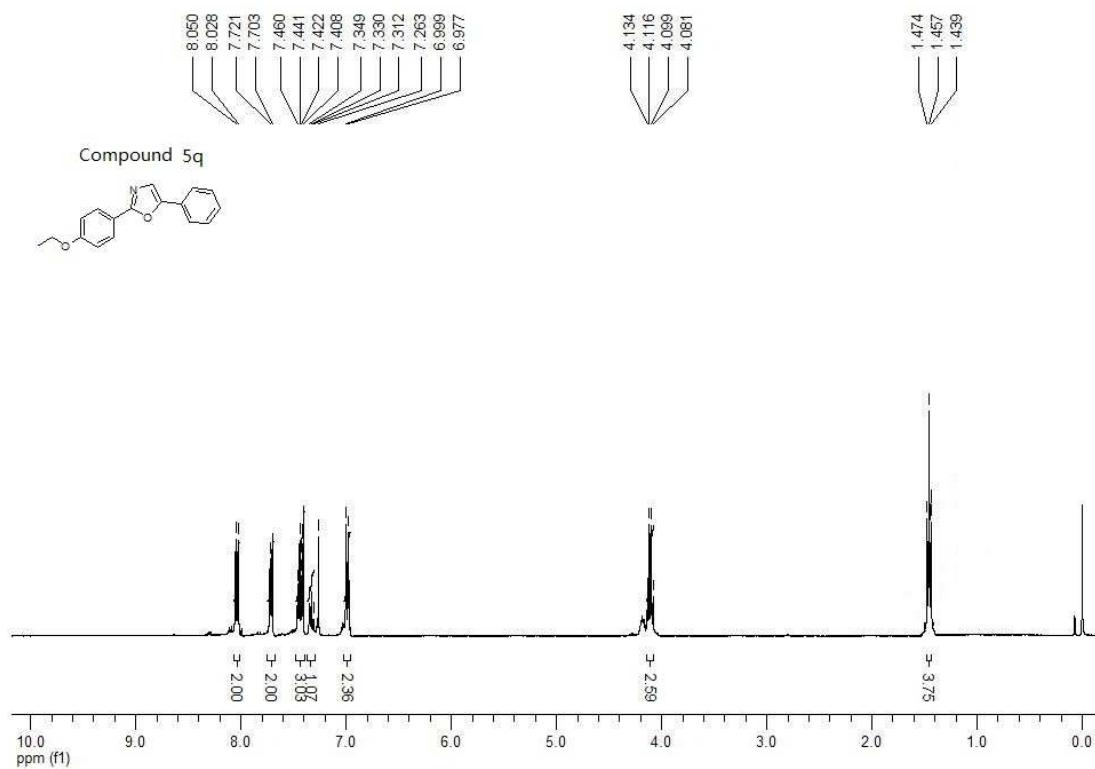


5-phenyl-2-(thiophen-2-yl)oxazole (**5o**):

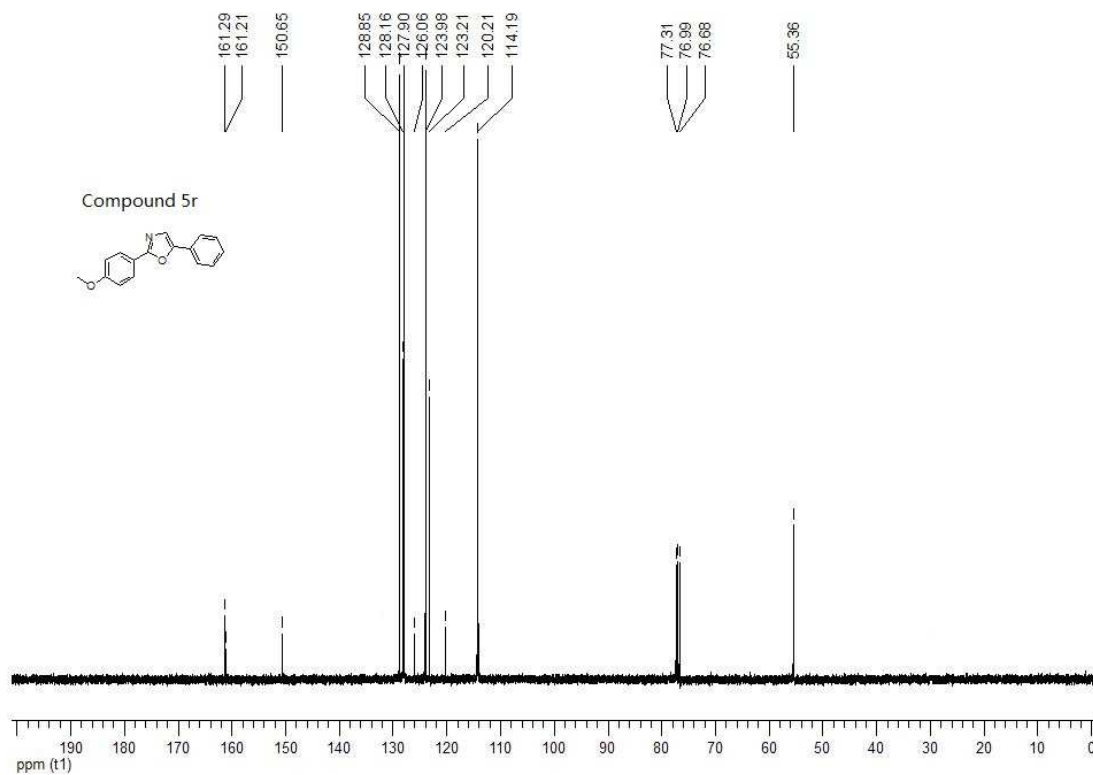
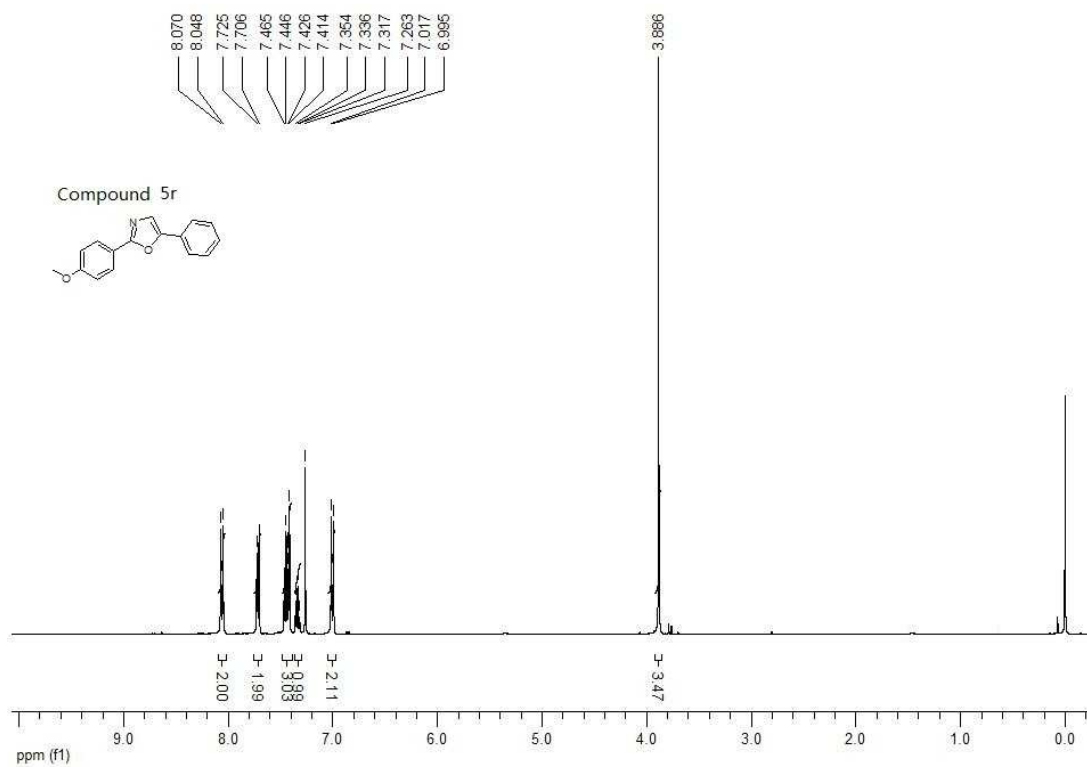


2-(furan-2-yl)-5-phenyloxazole (**5p**):

2-(4-ethoxyphenyl)-5-phenyloxazole (**5q**):



2-(4-methoxyphenyl)-5-phenyloxazole (**5r**):



2-(3,4-dimethoxyphenyl)-5-phenyloxazole (**5s**):

