

Supporting Information

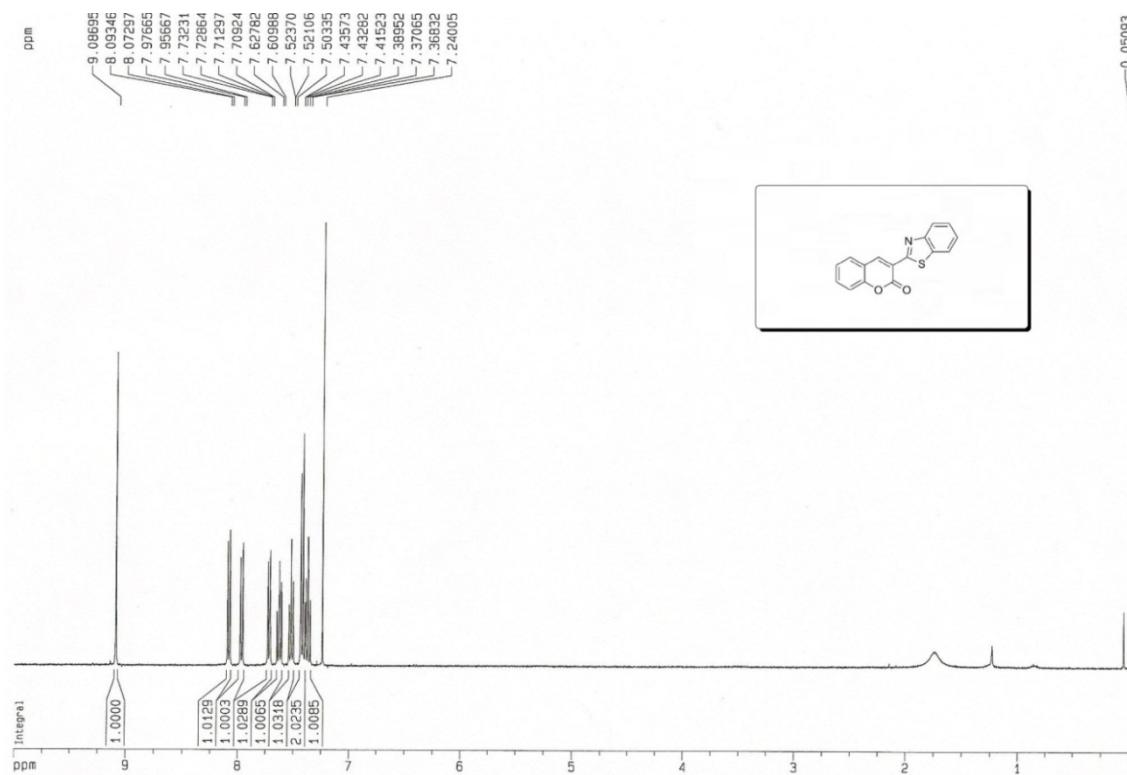
Direct C–H Cross-Coupling Approach to Heteroaryl Coumarins

*Minsik Min, Bomi Kim, and Sungwoo Hong**

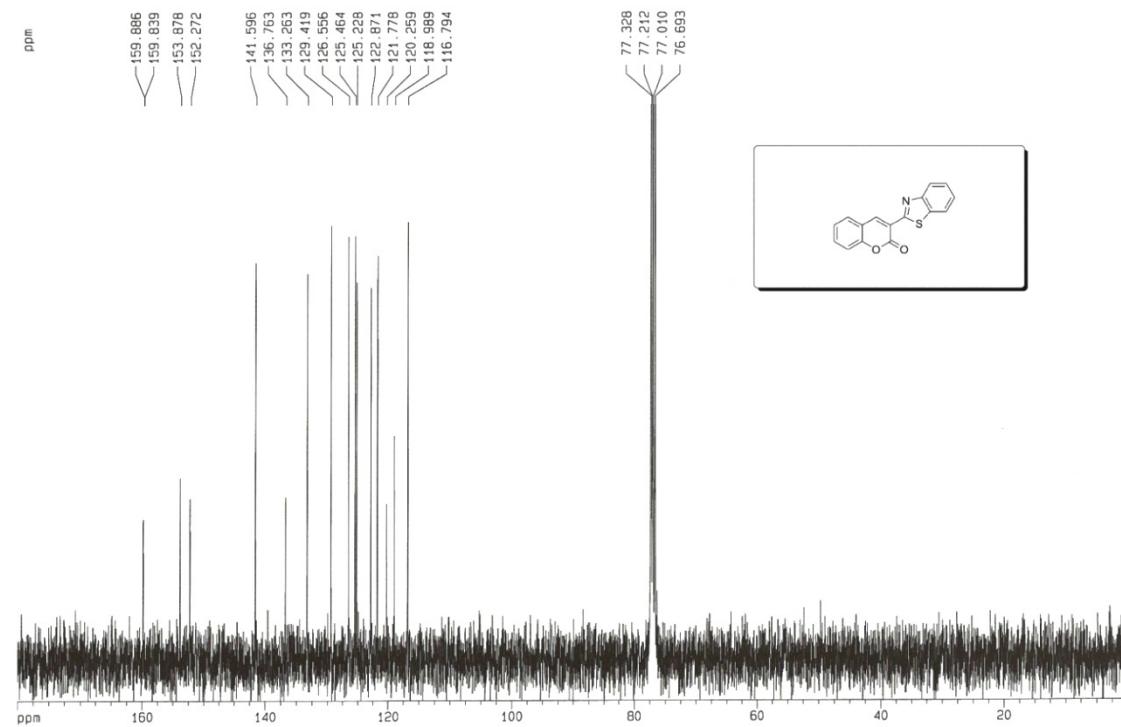
*Department of Chemistry, Korea Advance Institute of Science and Technology (KAIST), Daejeon 305-701,
Korea*

Spectral Copies of ^1H - and ^{13}C -NMR Data Obtained in this Study

3-(benzo[d]thiazol-2-yl)-2H-chromen-2-one.

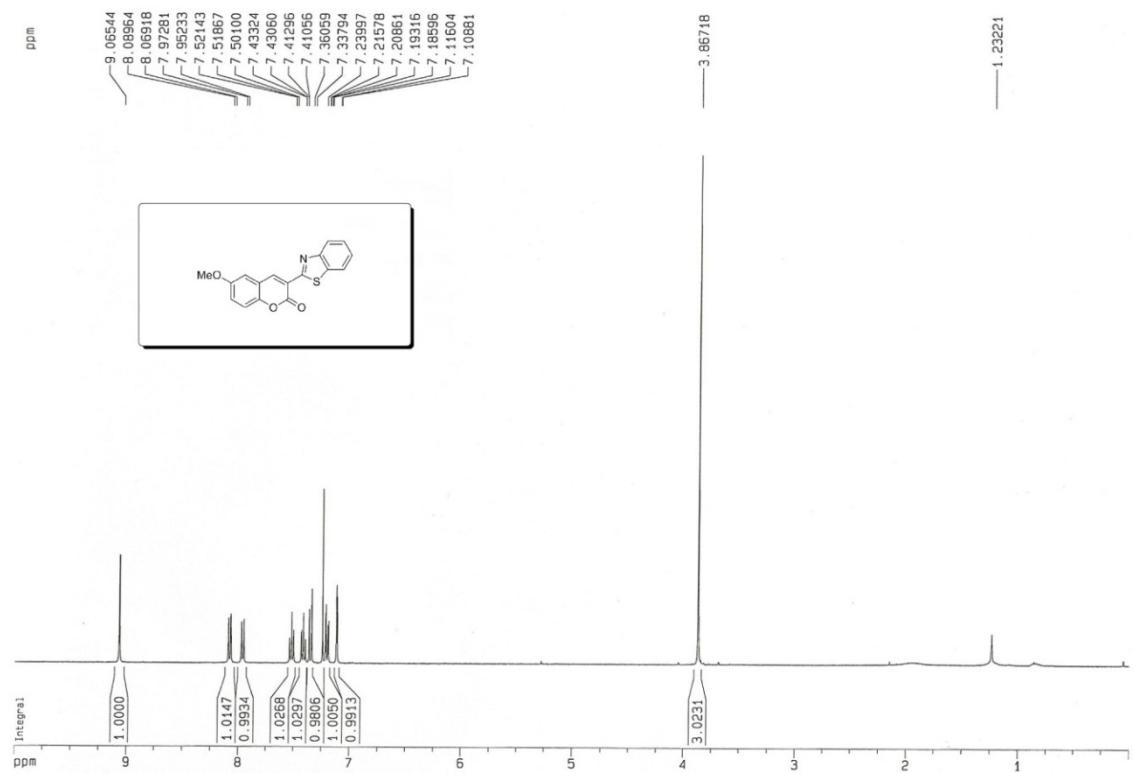


400 MHz, ^1H NMR in CDCl_3

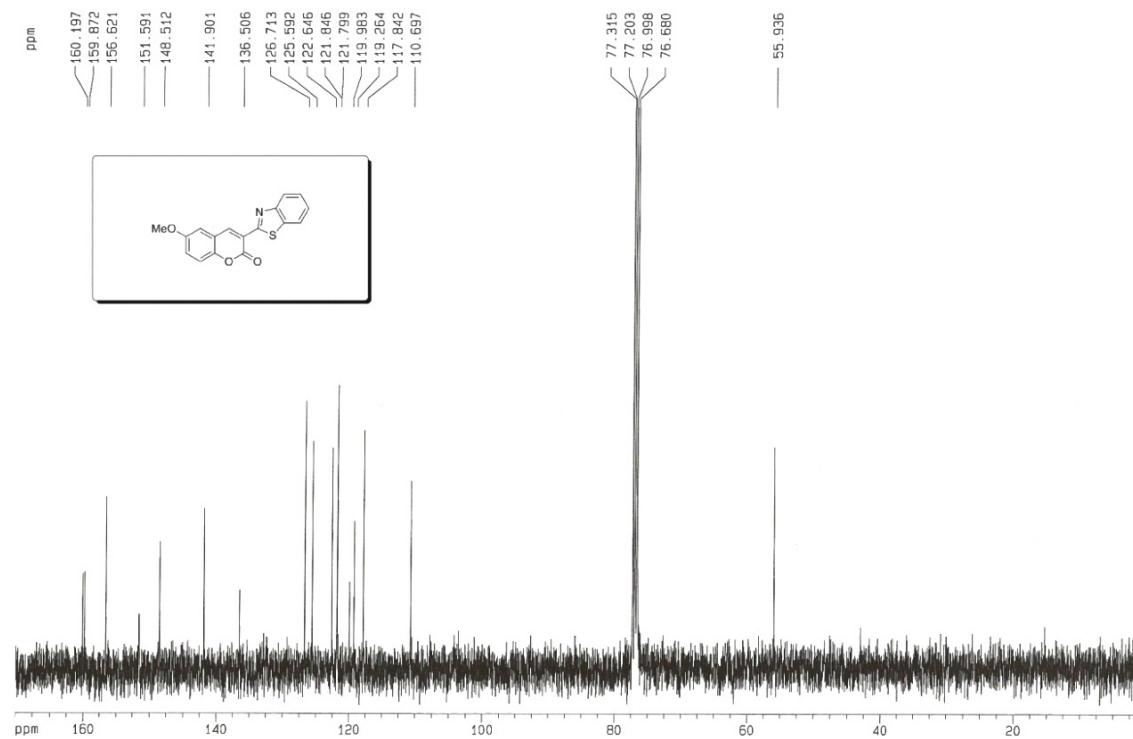


100 MHz, ^{13}C NMR in CDCl_3

3-(benzo[d]thiazol-2-yl)-6-methoxy-2H-chromen-2-one.

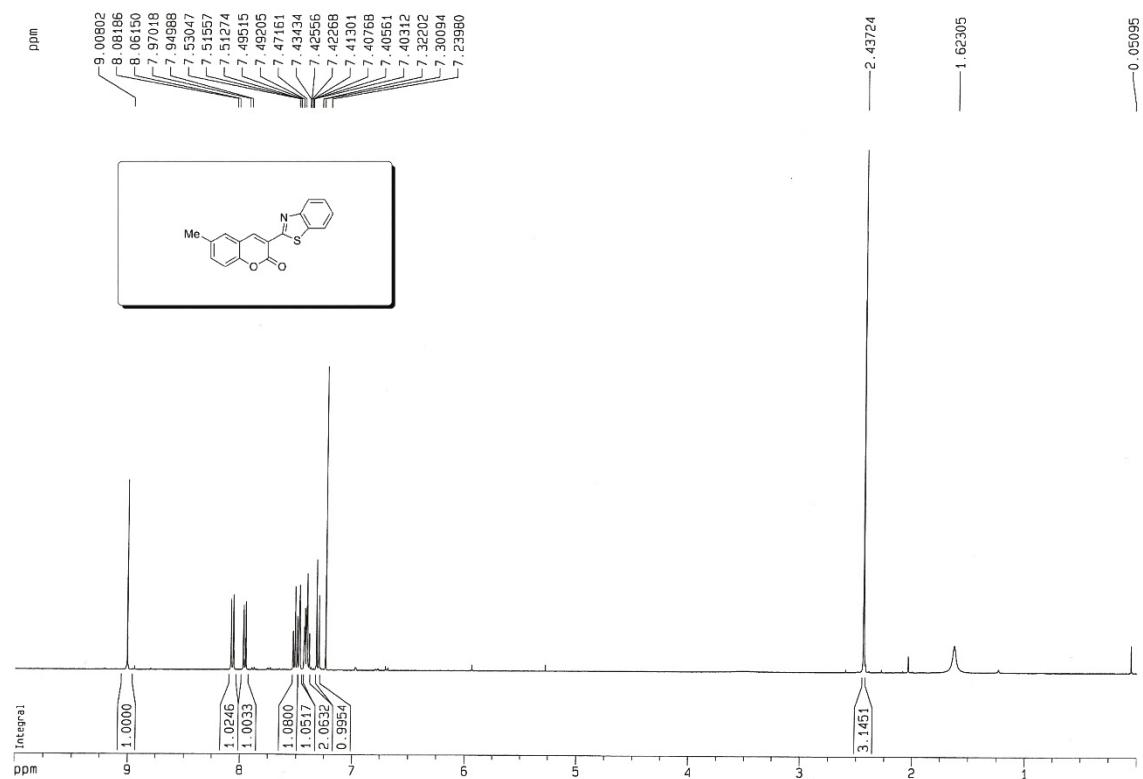


400 MHz, ^1H NMR in CDCl_3

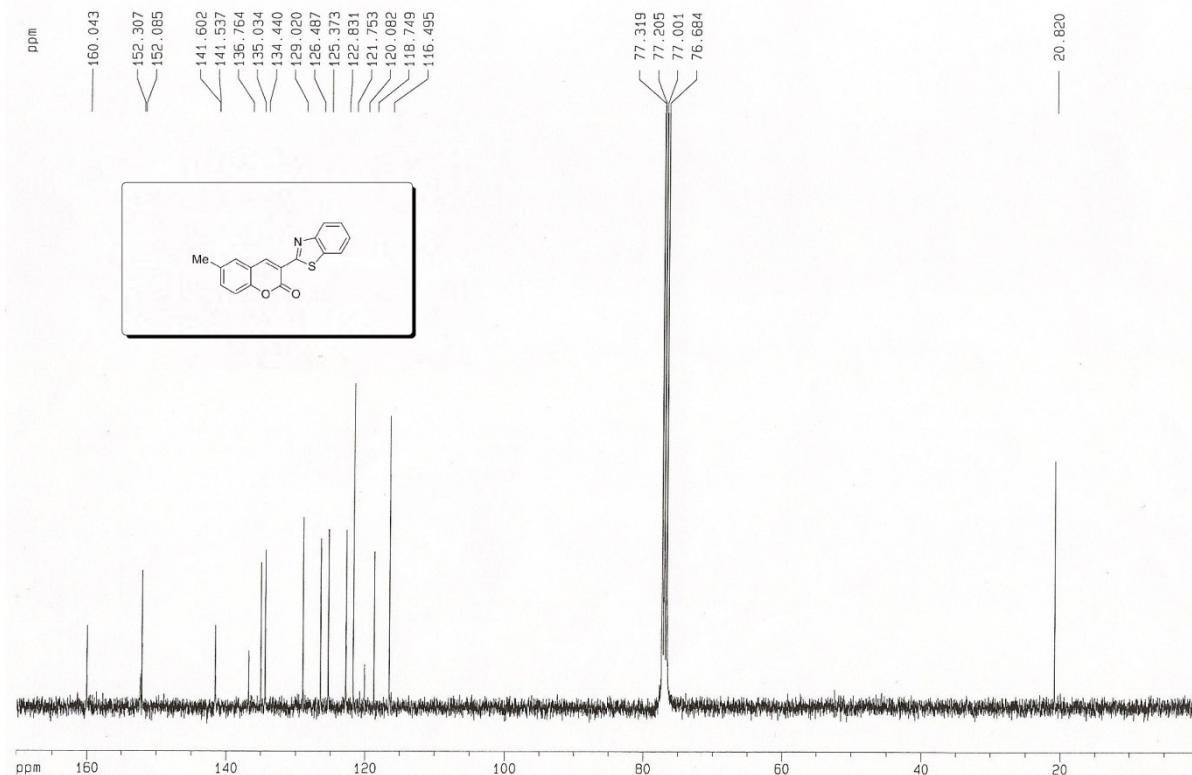


100 MHz, ^{13}C NMR in CDCl_3

3-(benzo[d]thiazol-2-yl)-6-methyl-2H-chromen-2-one.

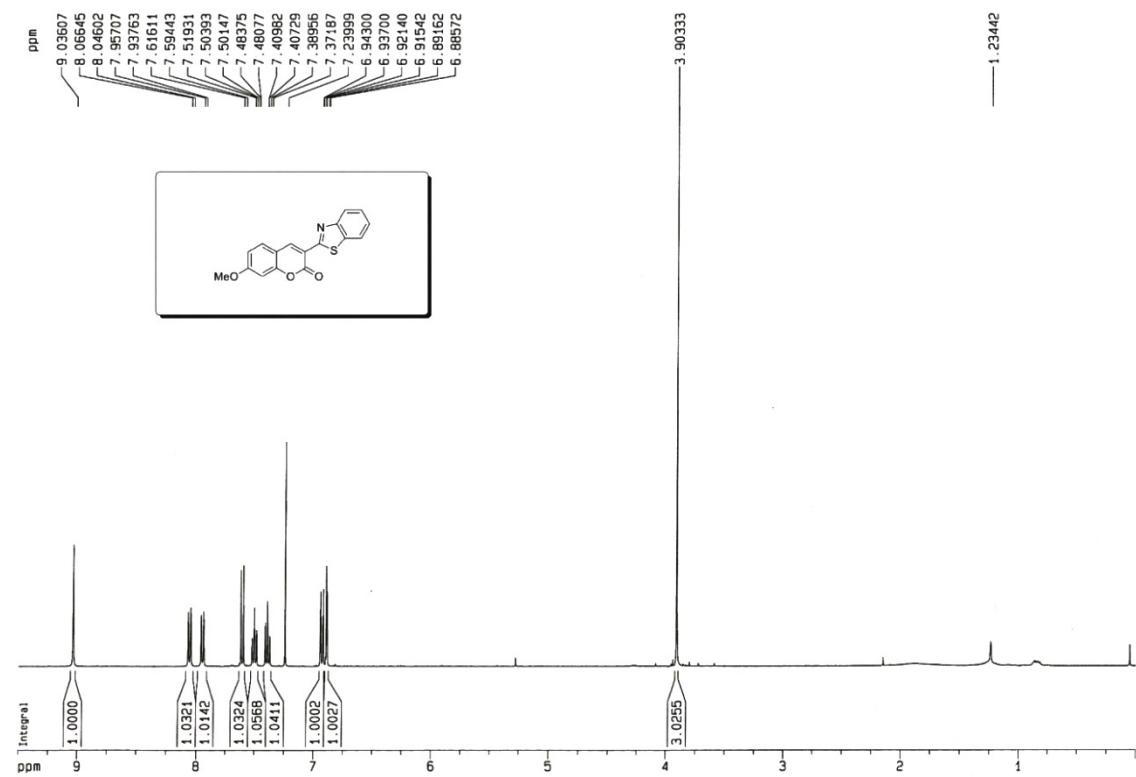


400 MHz, ^1H NMR in CDCl_3

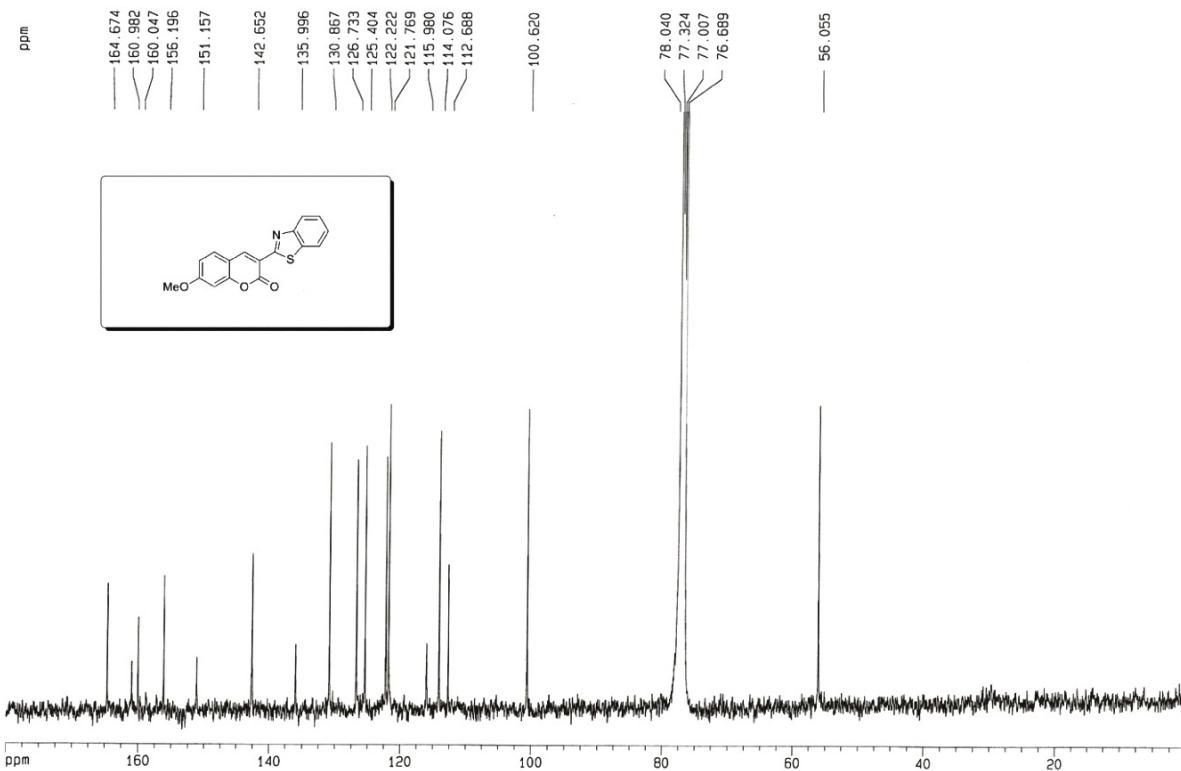


100 MHz, ^{13}C NMR in CDCl_3

3-(benzo[d]thiazol-2-yl)-7-methoxy-2H-chromen-2-one.

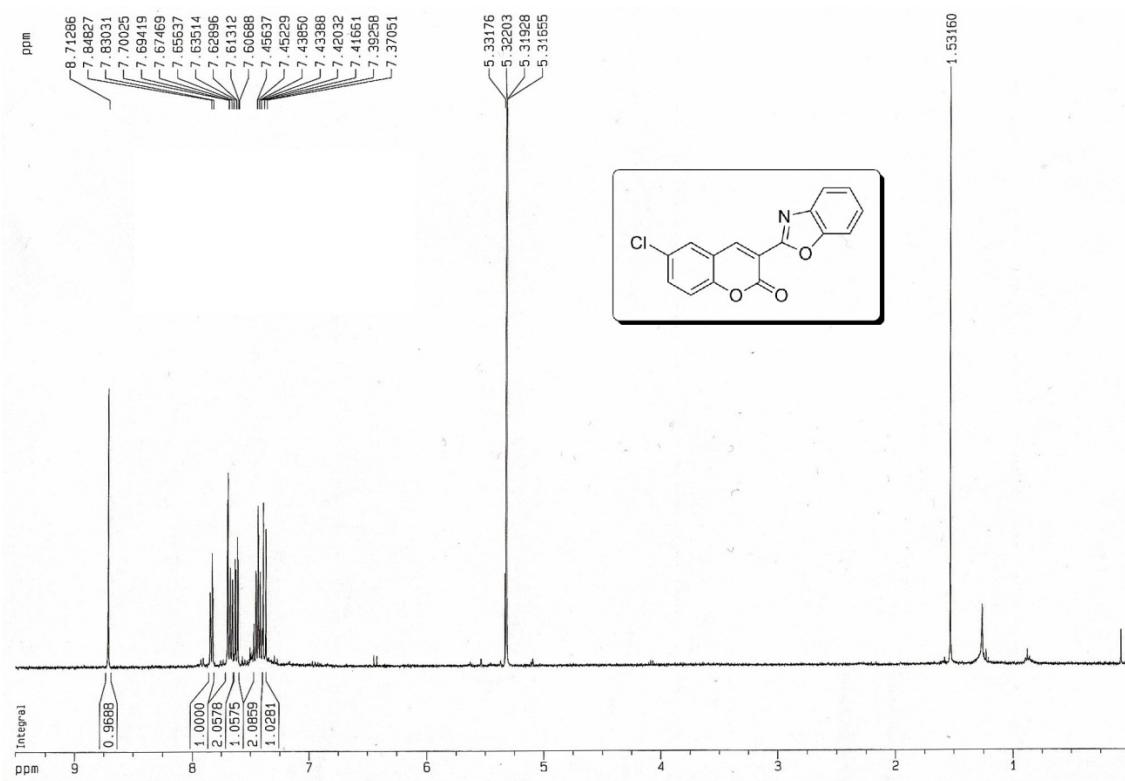


400 MHz, ^1H NMR in CDCl_3

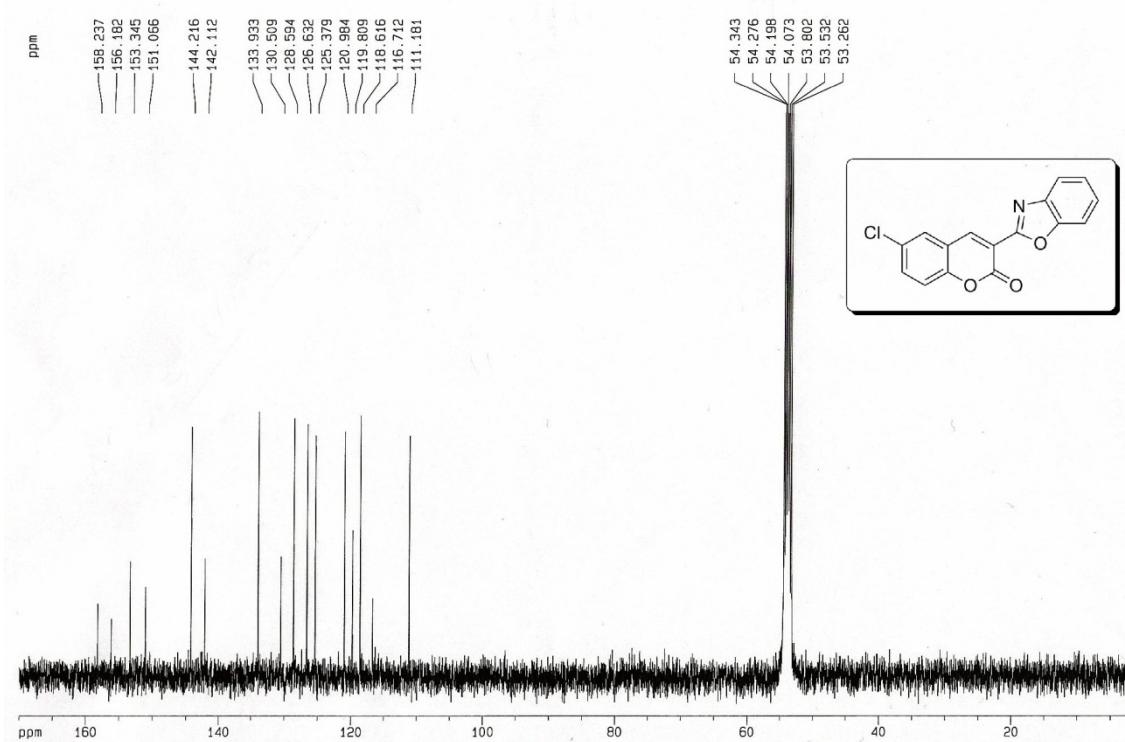


100 MHz, ^{13}C NMR in CDCl_3

3-(benzo[d]oxazol-2-yl)-6-chloro-2H-chromen-2-one.

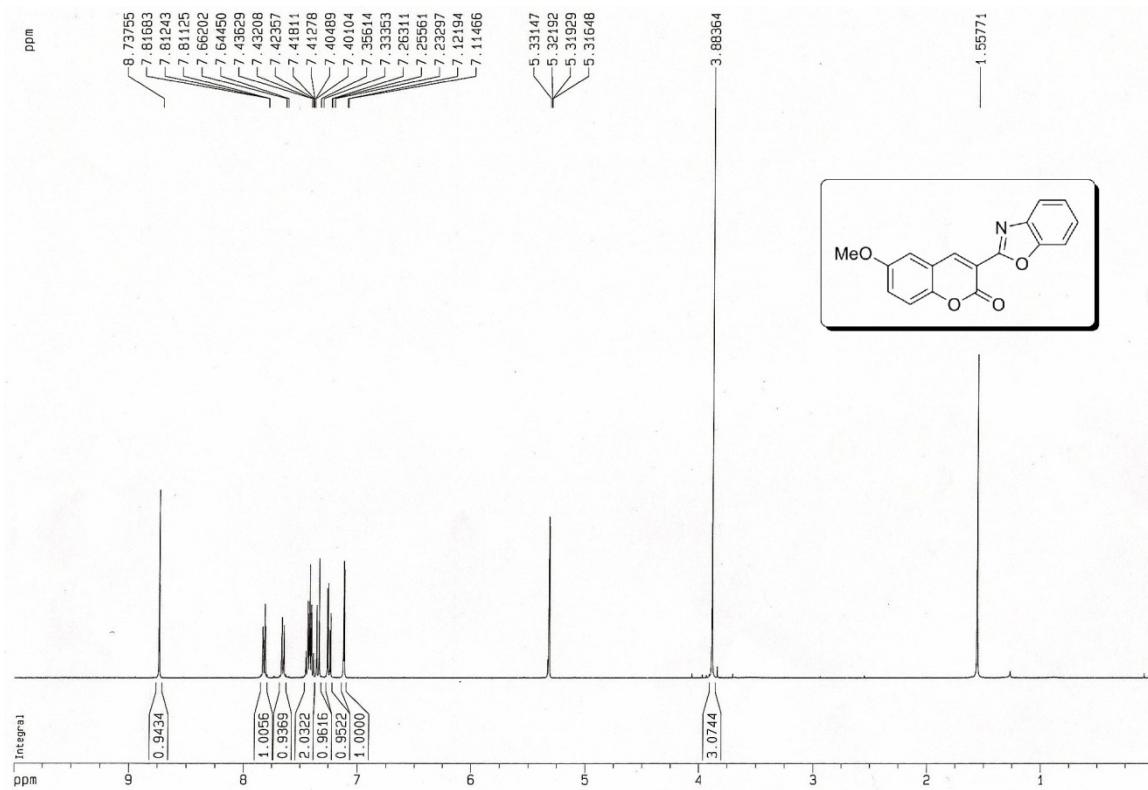


400 MHz, ^1H NMR in CD_2Cl_2

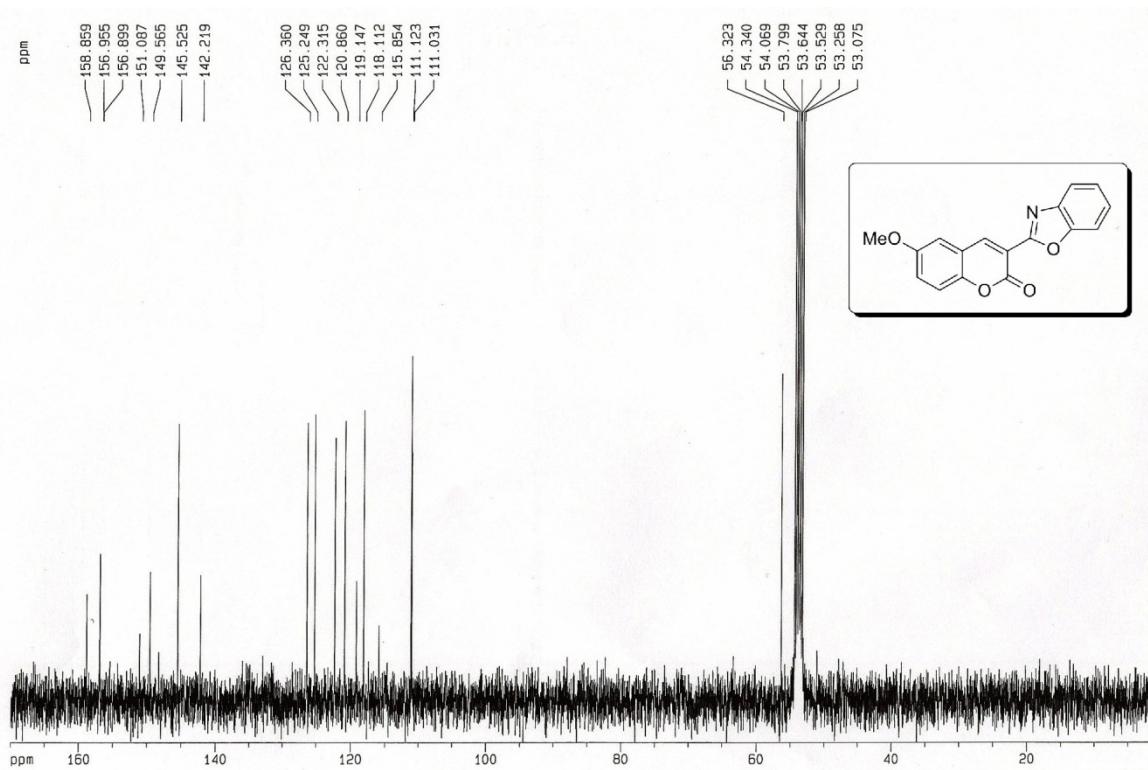


100 MHz, ^{13}C NMR in CD_2Cl_2

3-(benzo[d]oxazol-2-yl)-6-methoxy-2H-chromen-2-one.

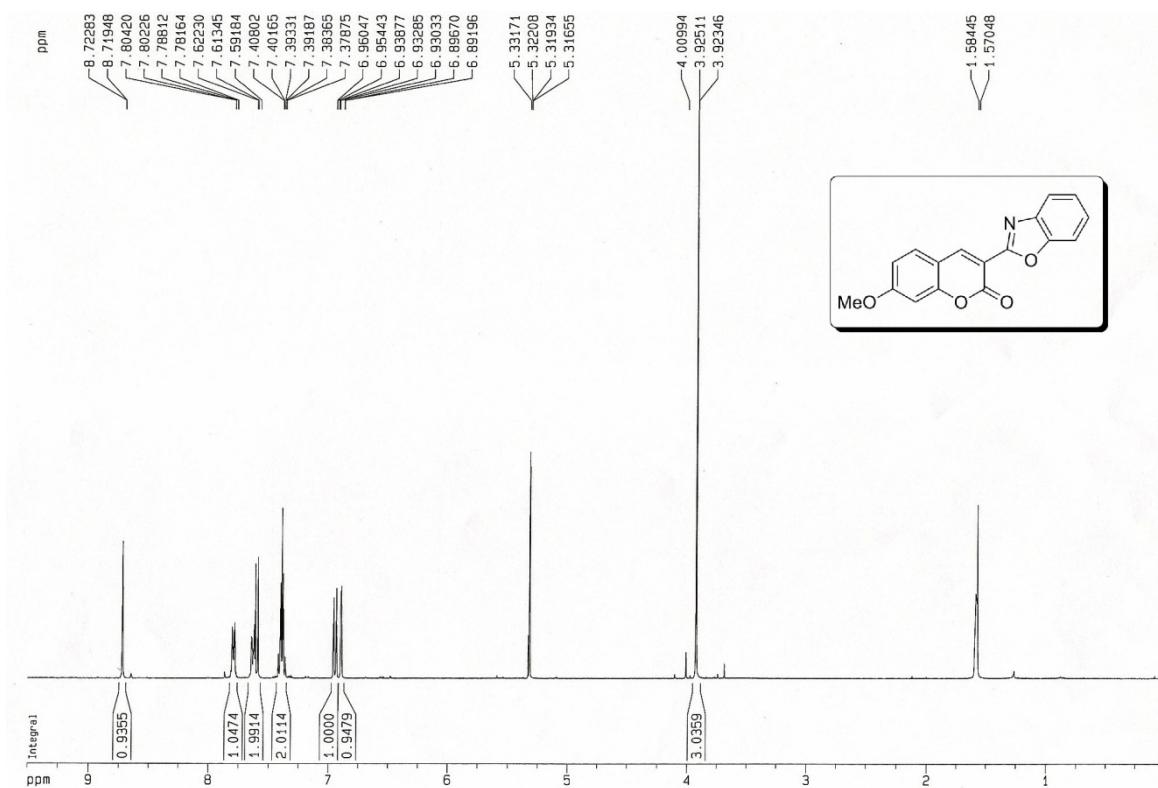


400 MHz, ^1H NMR in CD_2Cl_2

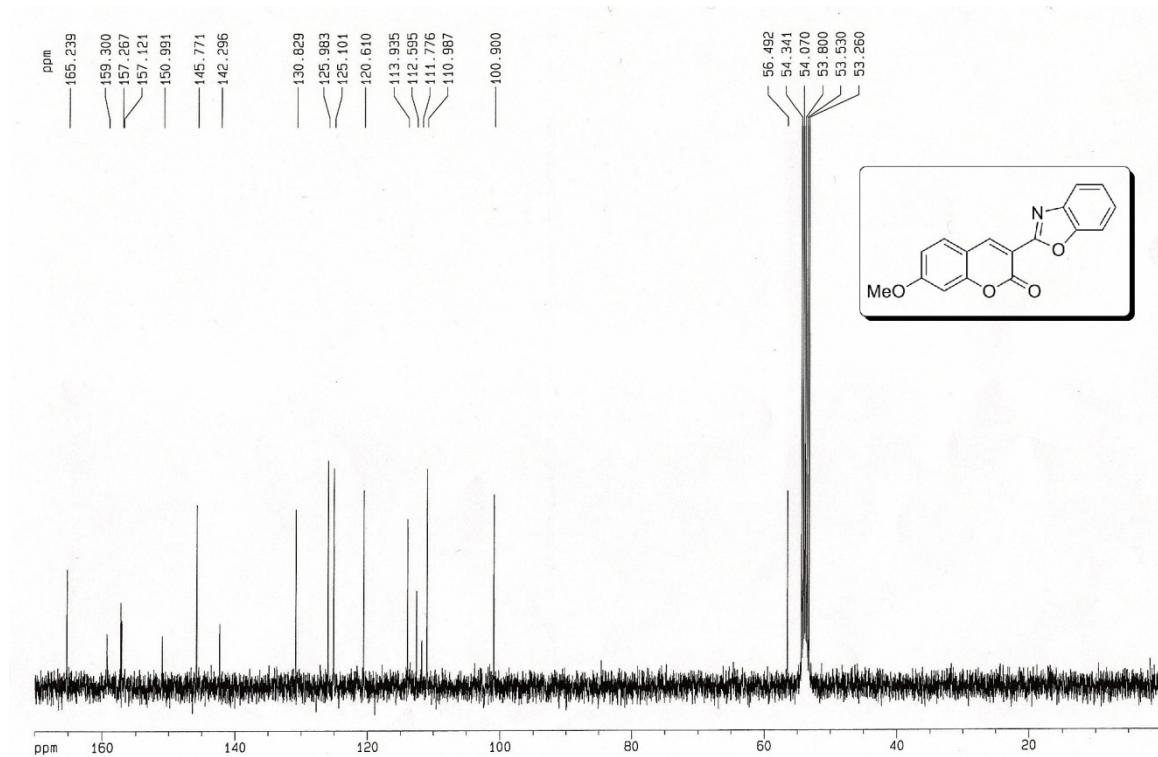


100 MHz, ^{13}C NMR in CD_2Cl_2

3-(benzo[d]oxazol-2-yl)-7-methoxy-2H-chromen-2-one

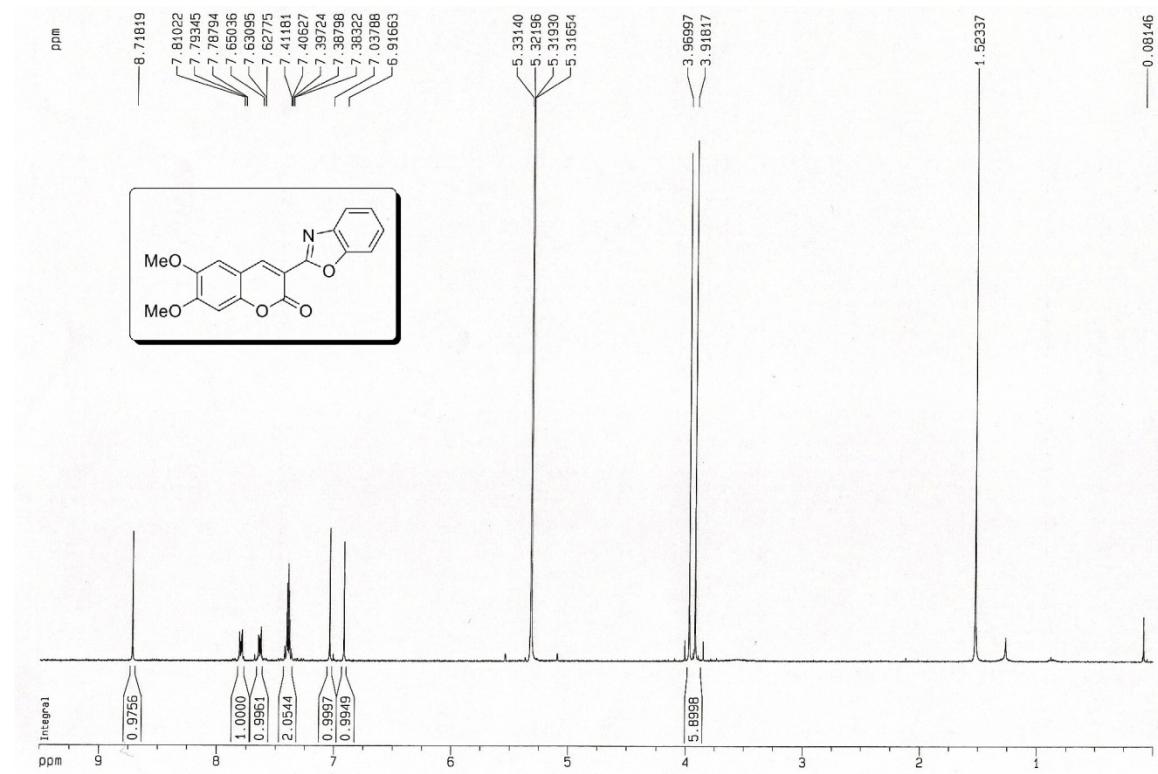


400 MHz, ^1H NMR in CD_2Cl_2

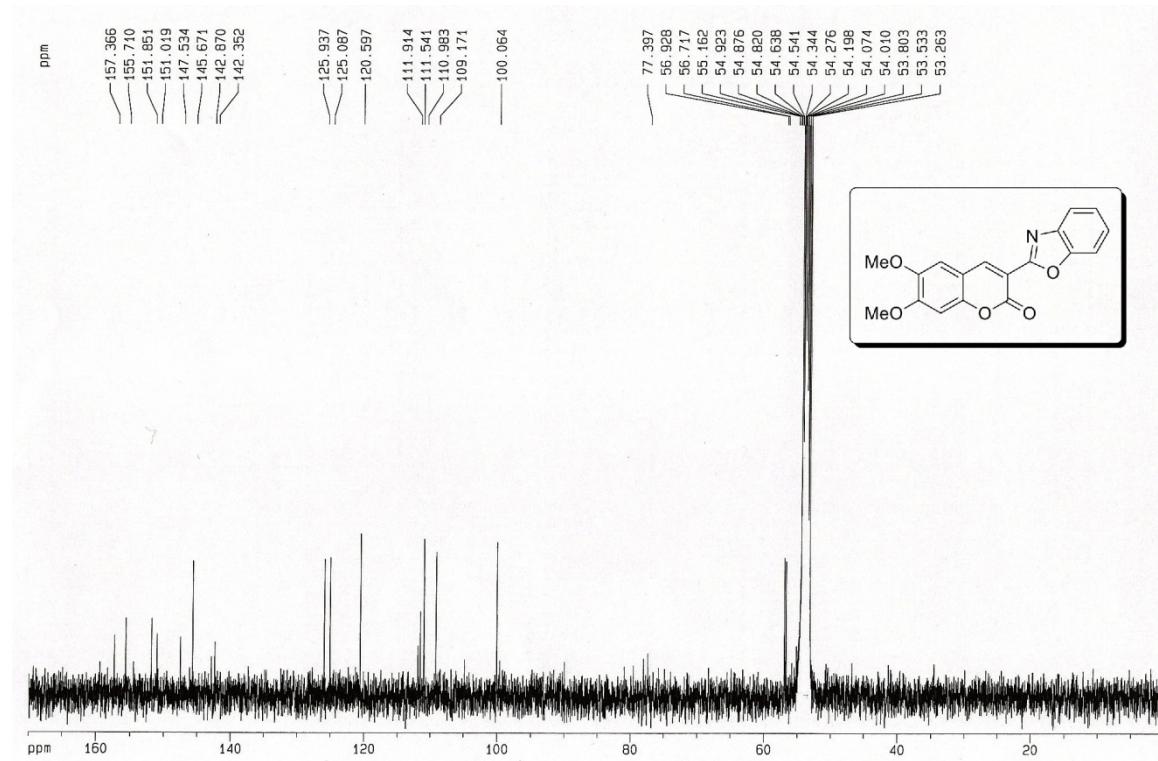


100 MHz, ^{13}C NMR in CD_2Cl_2

3-(benzo[d]oxazol-2-yl)-6,7-dimethoxy-2H-chromen-2-one.

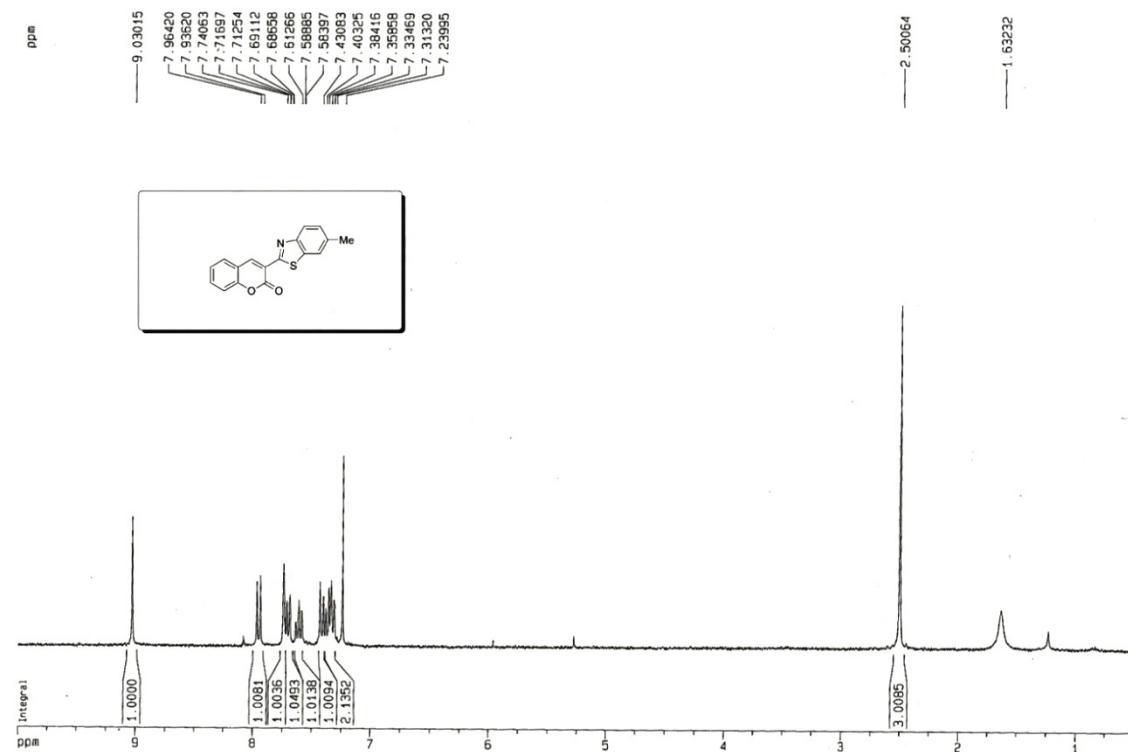


400 MHz, ^1H NMR in CD_2Cl_2

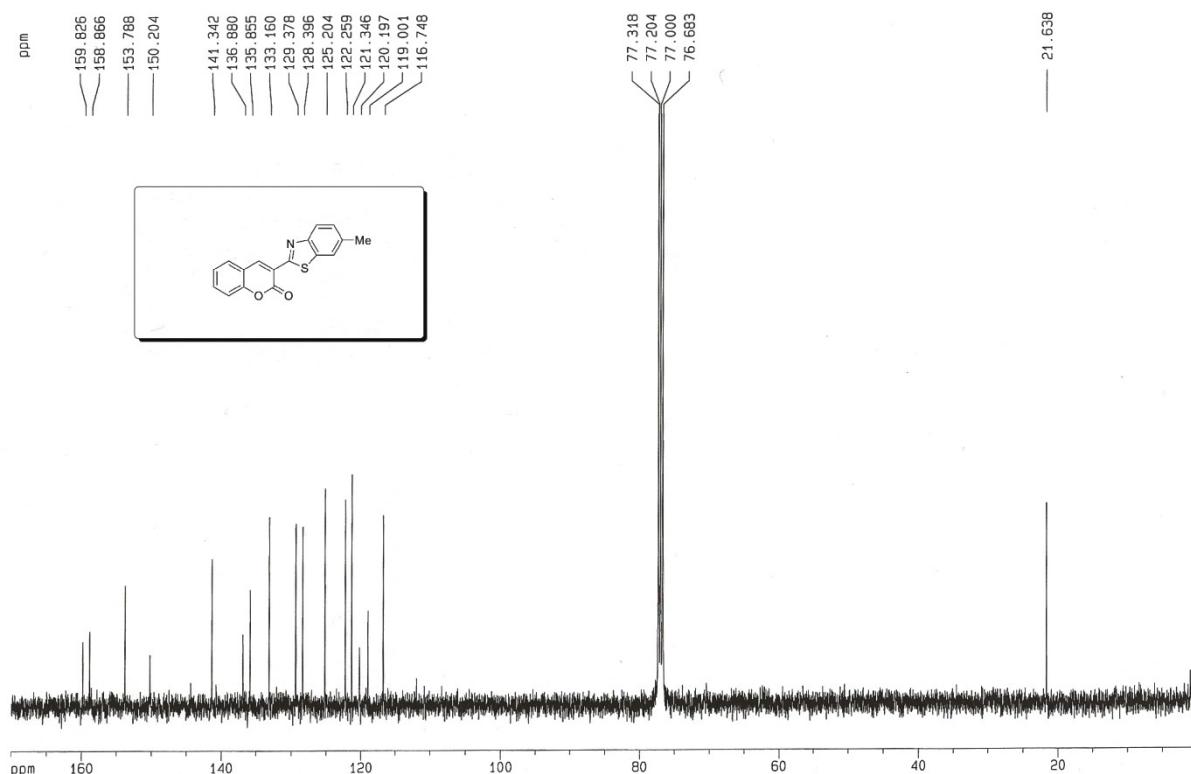


100 MHz, ^{13}C NMR in CD_2Cl_2

3-(6-methylbenzo[d]thiazol-2-yl)-2H-chromen-2-one.

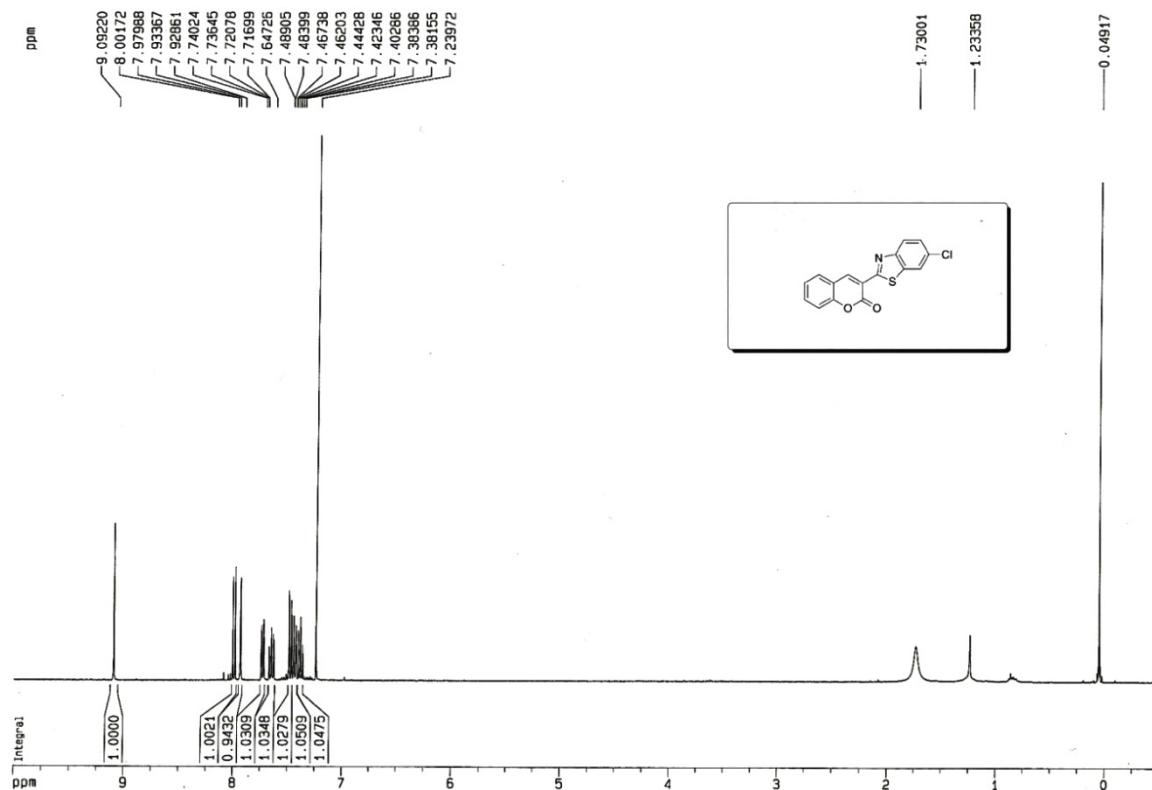


400 MHz, ^1H NMR in CDCl_3

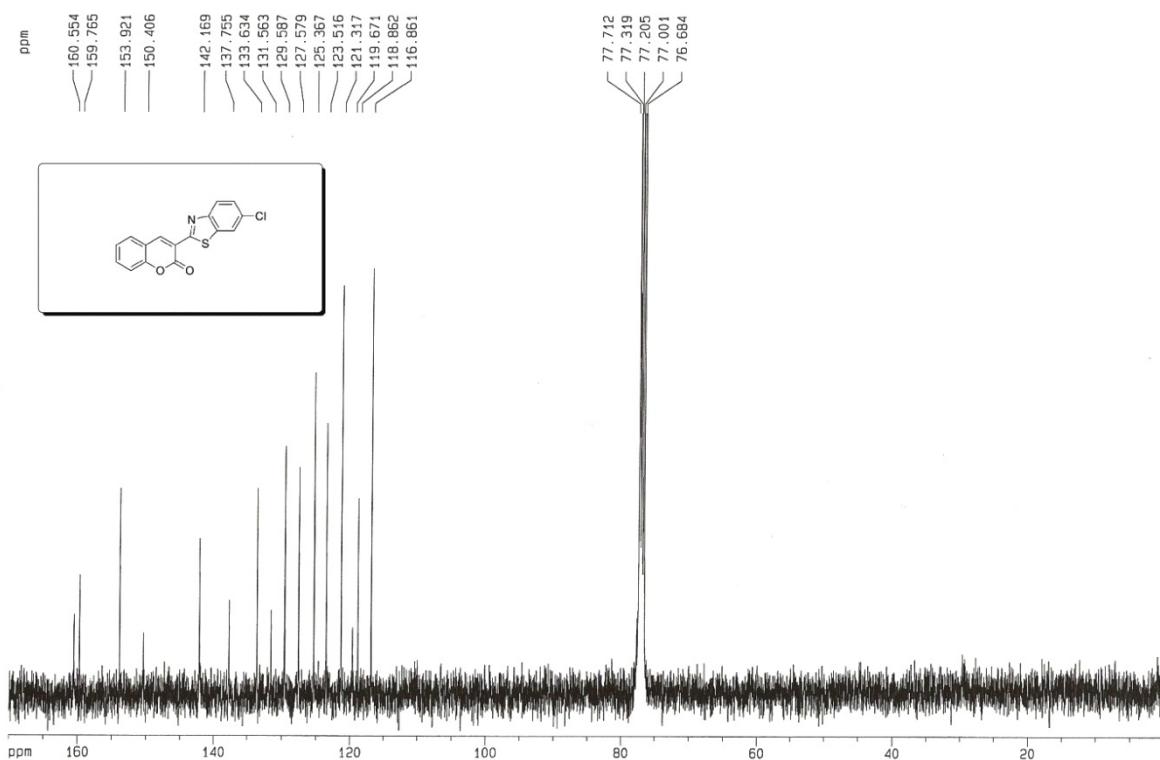


100 MHz, ^{13}C NMR in CDCl_3

3-(6-chlorobenzo[d]thiazol-2-yl)-2H-chromen-2-one.

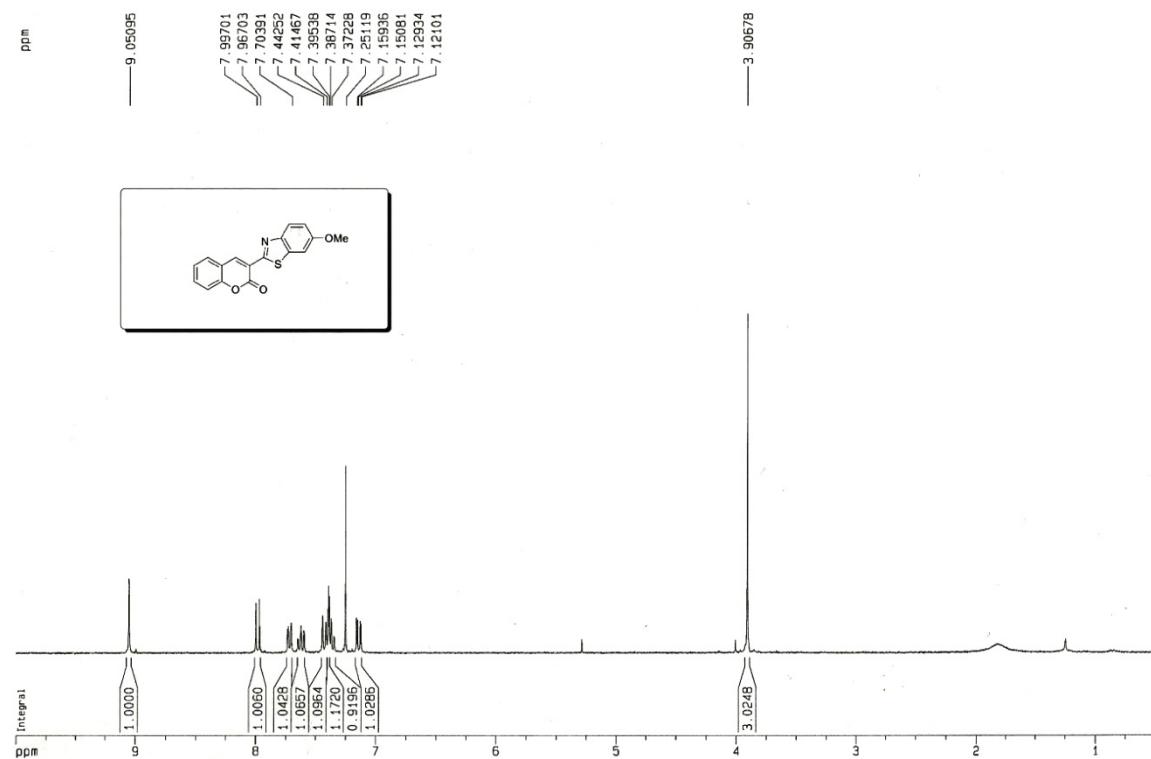


400 MHz, ^1H NMR in CDCl_3

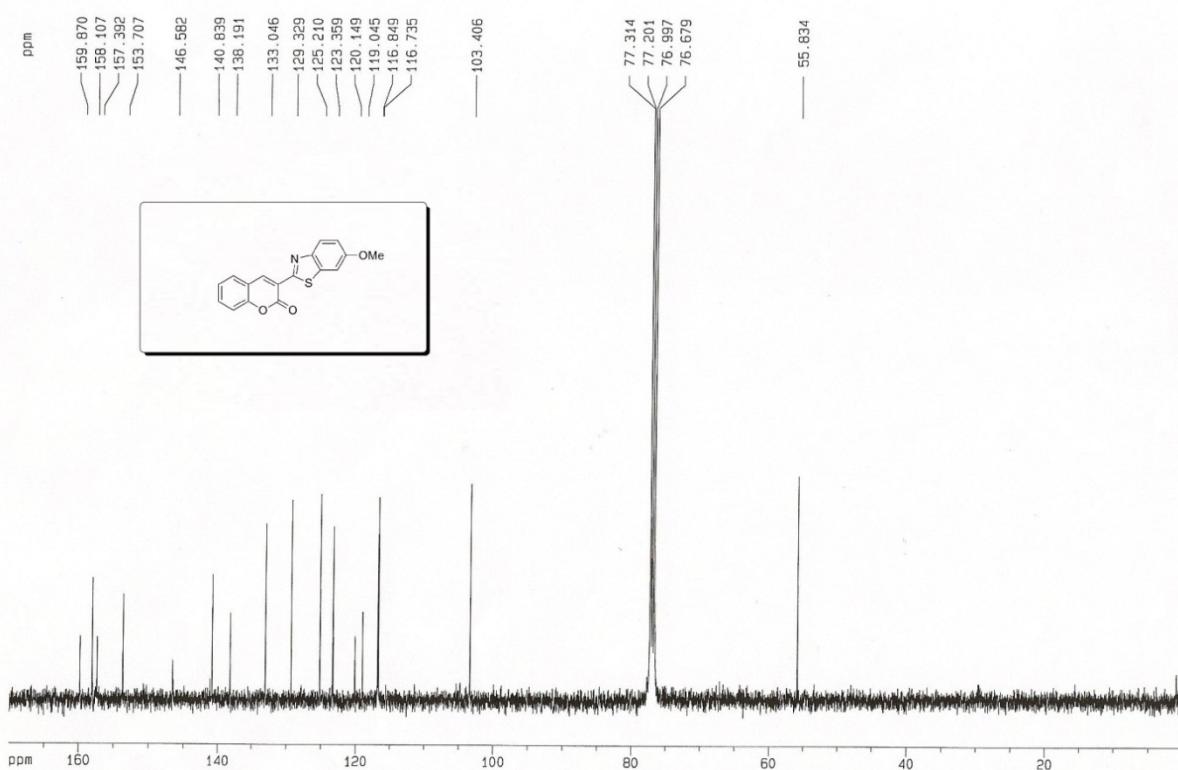


100 MHz, ^{13}C NMR in CDCl_3

3-(6-methoxybenzo[d]thiazol-2-yl)-2H-chromen-2-one.

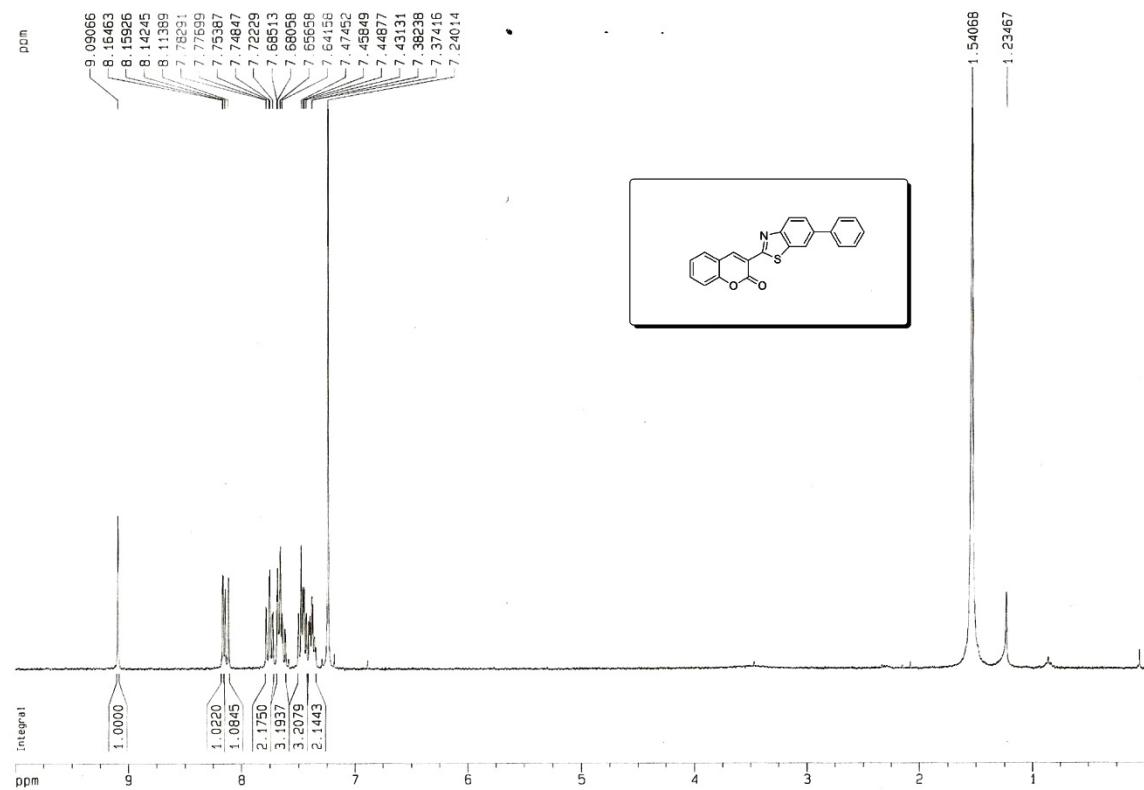


400 MHz, ^1H NMR in CDCl_3

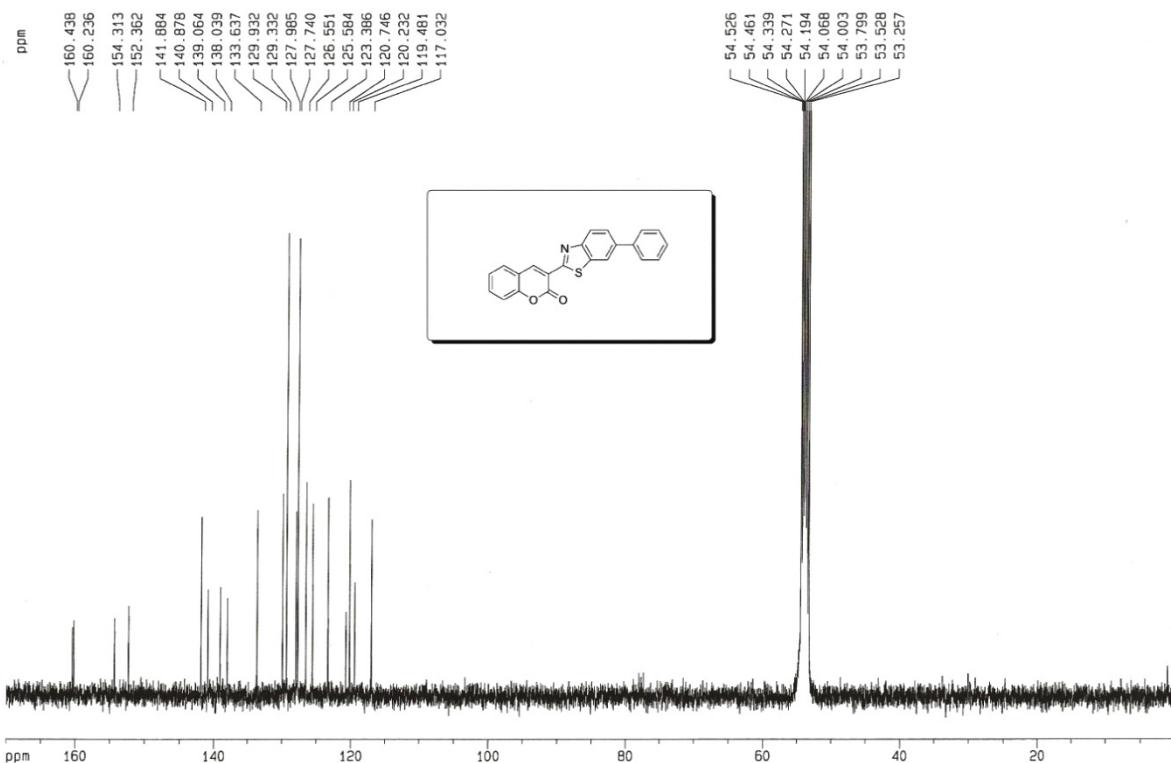


100 MHz, ^{13}C NMR in CDCl_3

3-(6-phenylbenzo[d]thiazol-2-yl)-2H-chromen-2-one.

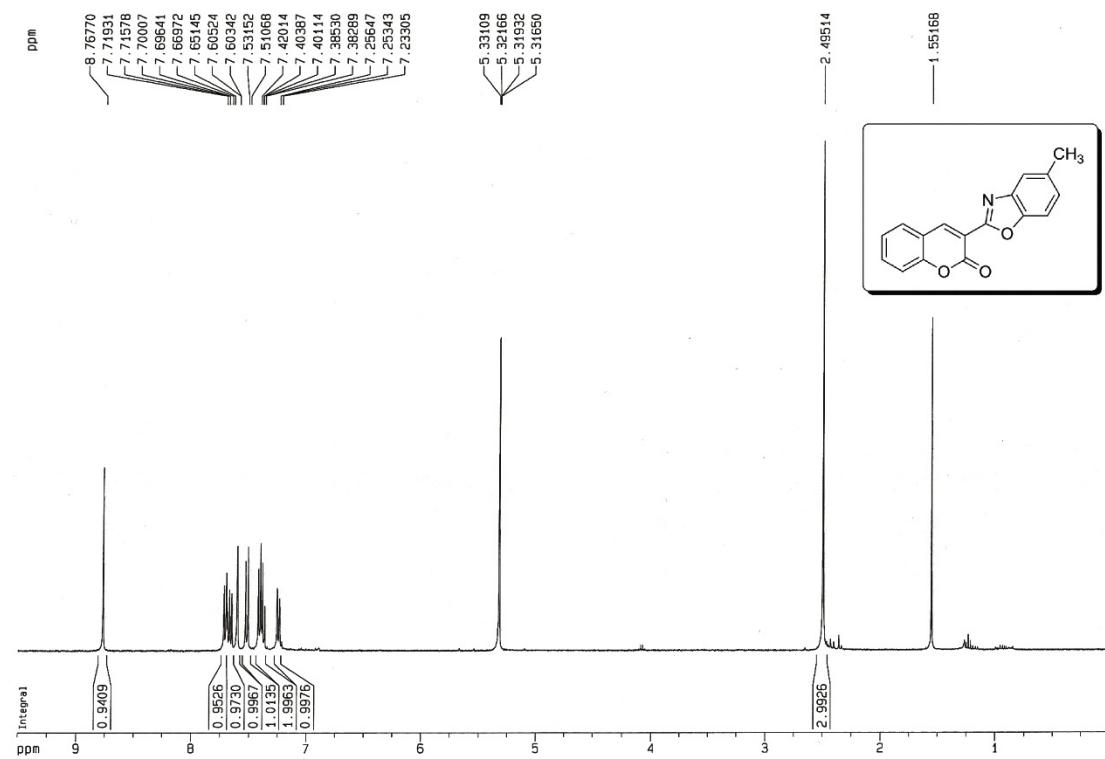


300 MHz, ^1H NMR in CDCl_3

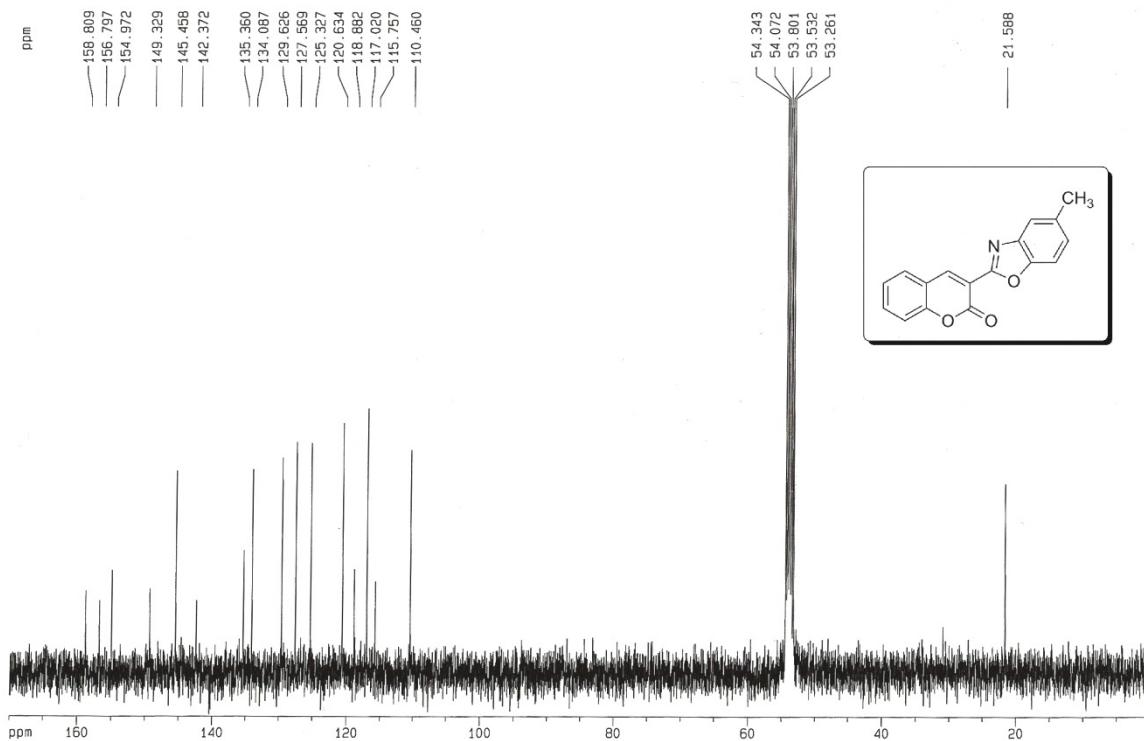


100 MHz, ^{13}C NMR in CDCl_3

3-(5-methylbenzo[d]oxazol-2-yl)-2H-chromen-2-one.

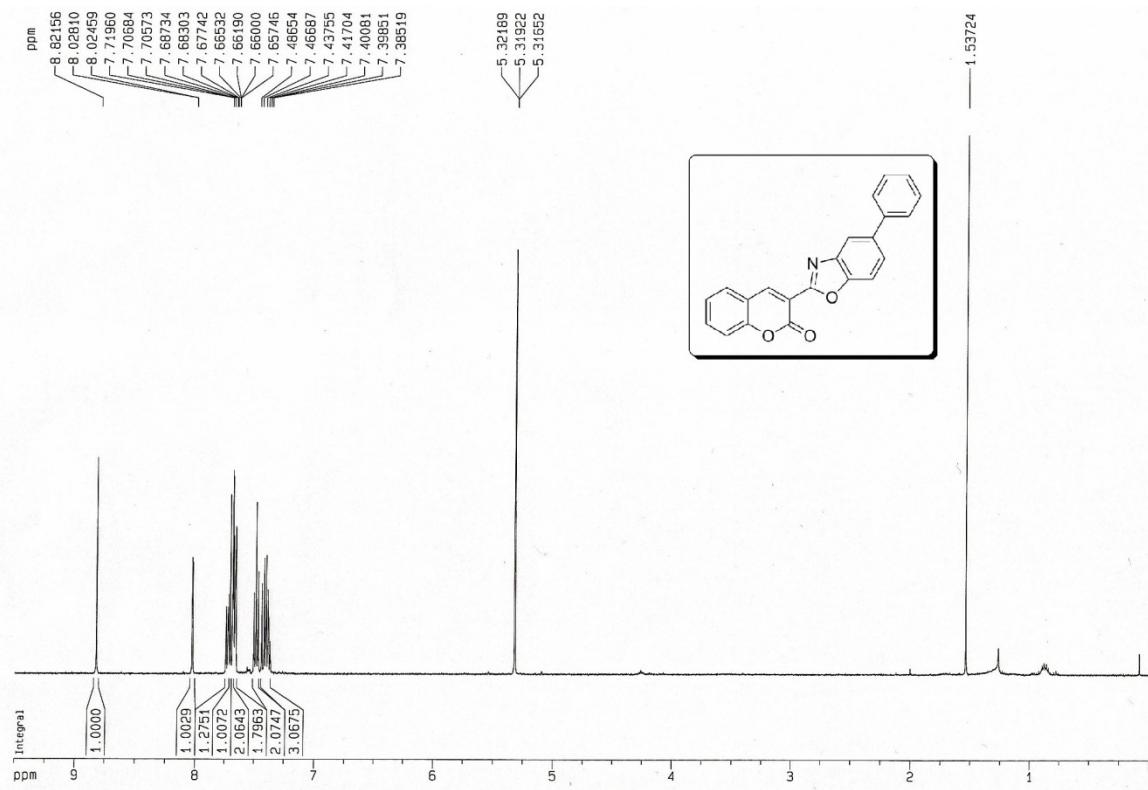


400 MHz, ^1H NMR in CD_2Cl_2

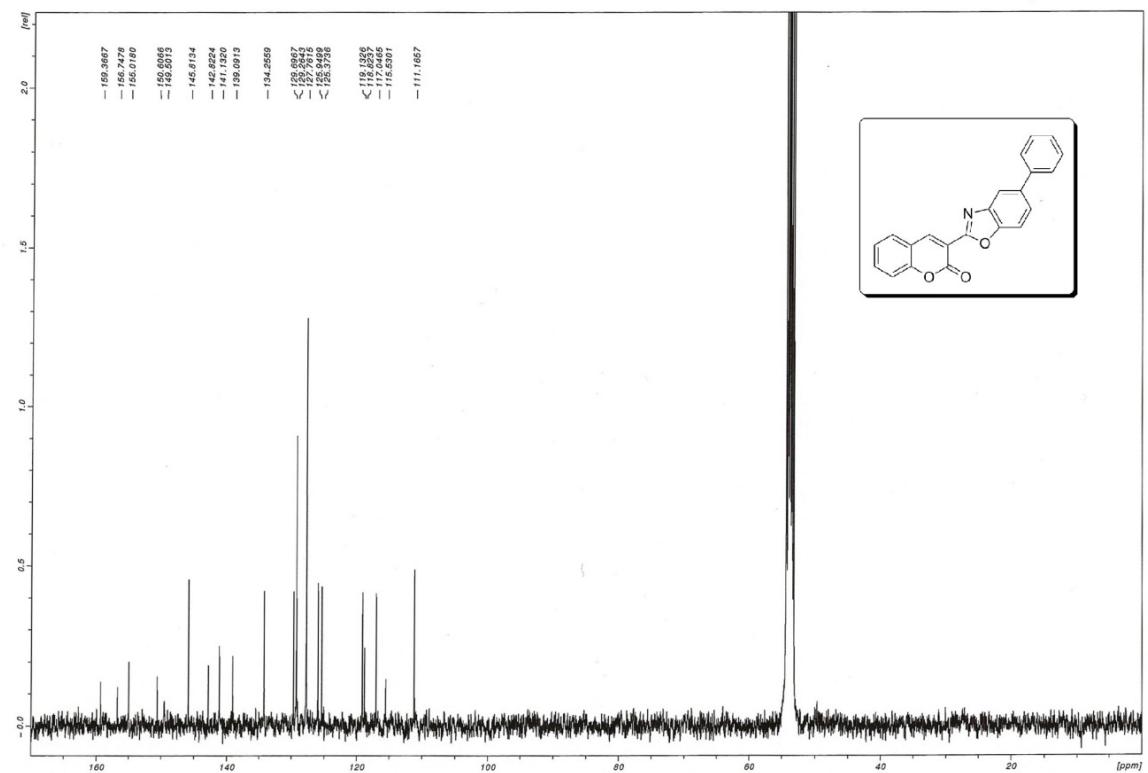


100 MHz, ^{13}C NMR in CD_2Cl_2

3-(5-phenylbenzo[d]oxazol-2-yl)-2H-chromen-2-one.



300 MHz, ^1H NMR in CDCl_3

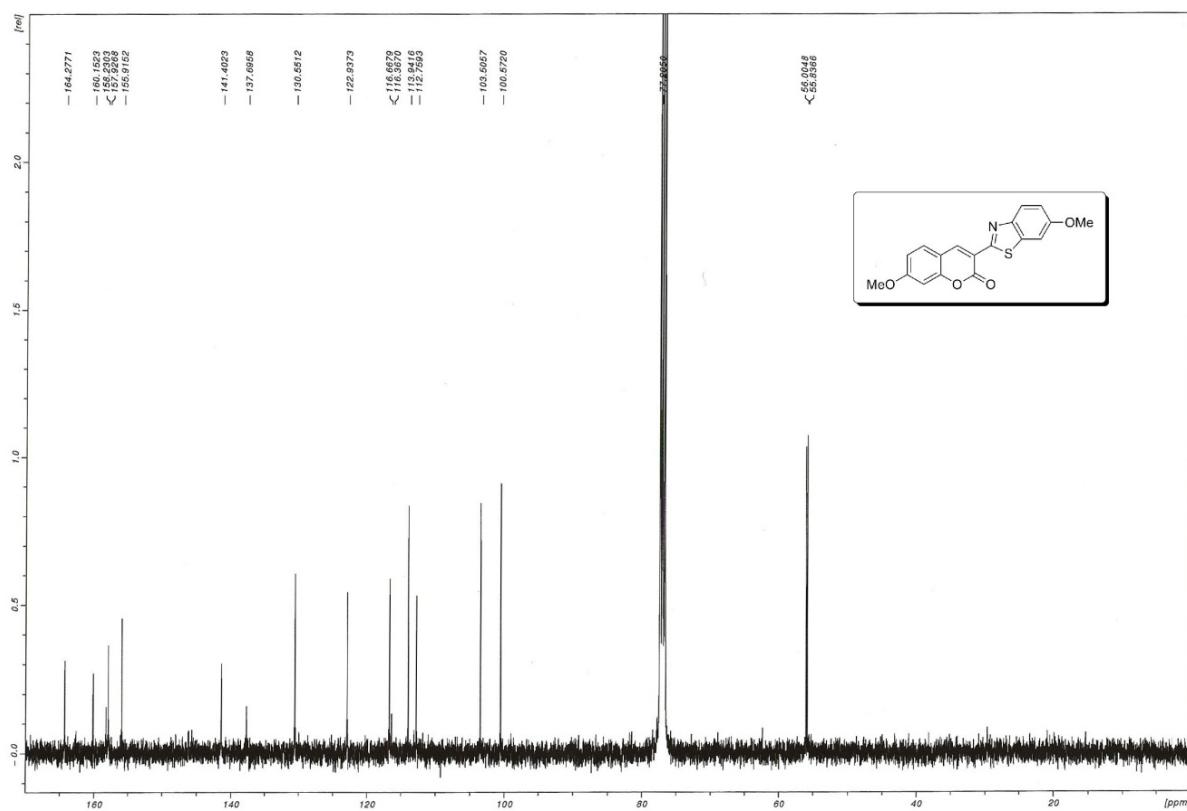


100 MHz, ^{13}C NMR in CD_2Cl_2

7-methoxy-3-(6-methoxybenzo[d]thiazol-2-yl)-2H-chromen-2-one.

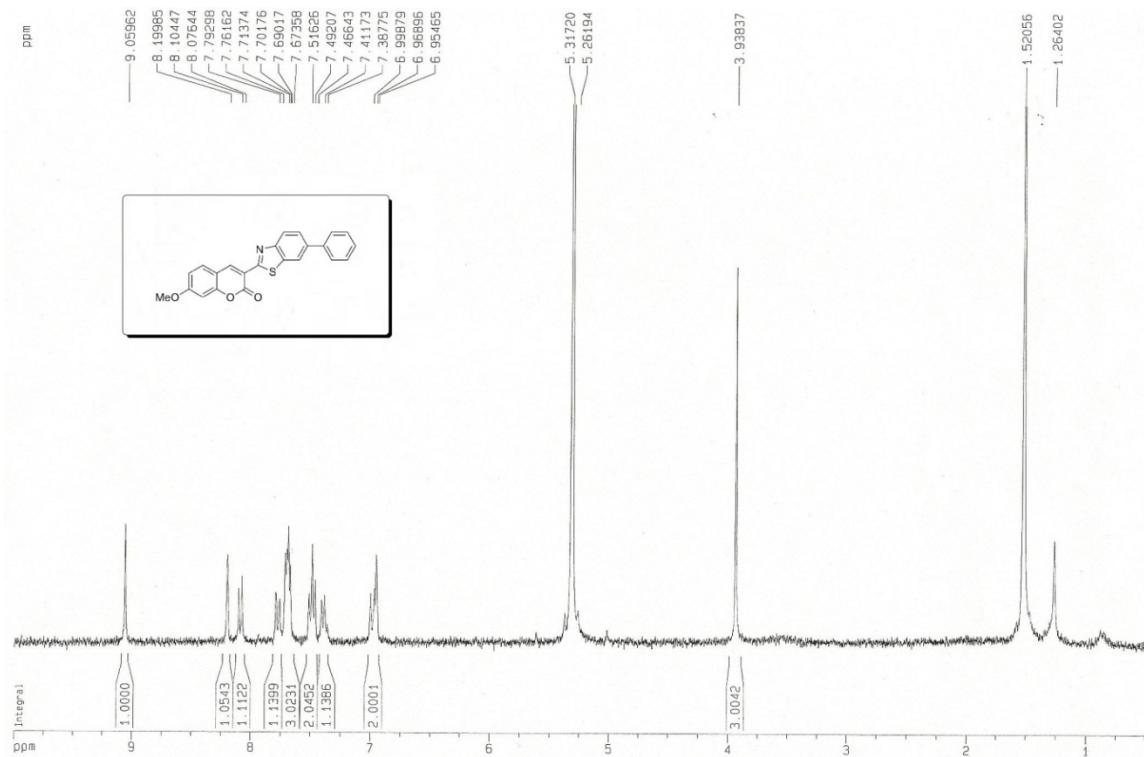


300 MHz, ^1H NMR in CDCl_3

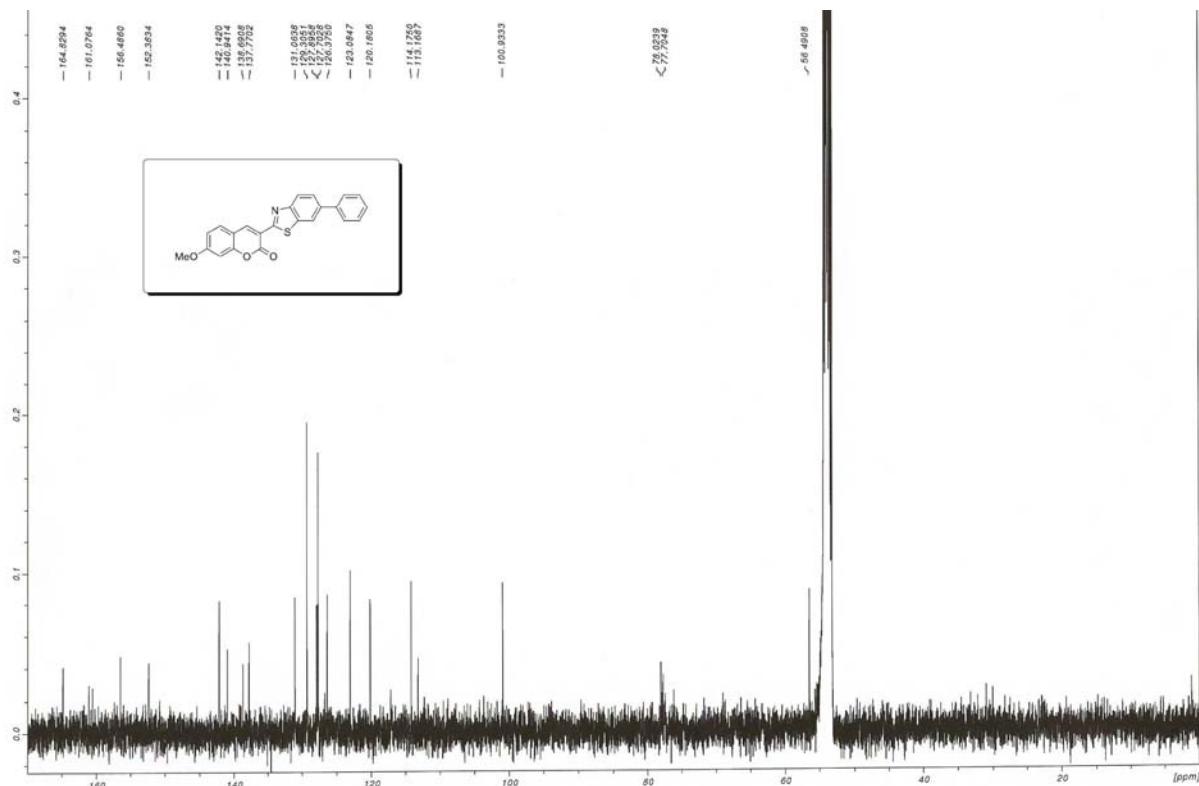


100 MHz, ^{13}C NMR in CD_2Cl_2

7-methoxy-3-(6-phenylbenzo[d]thiazol-2-yl)-2H-chromen-2-one.

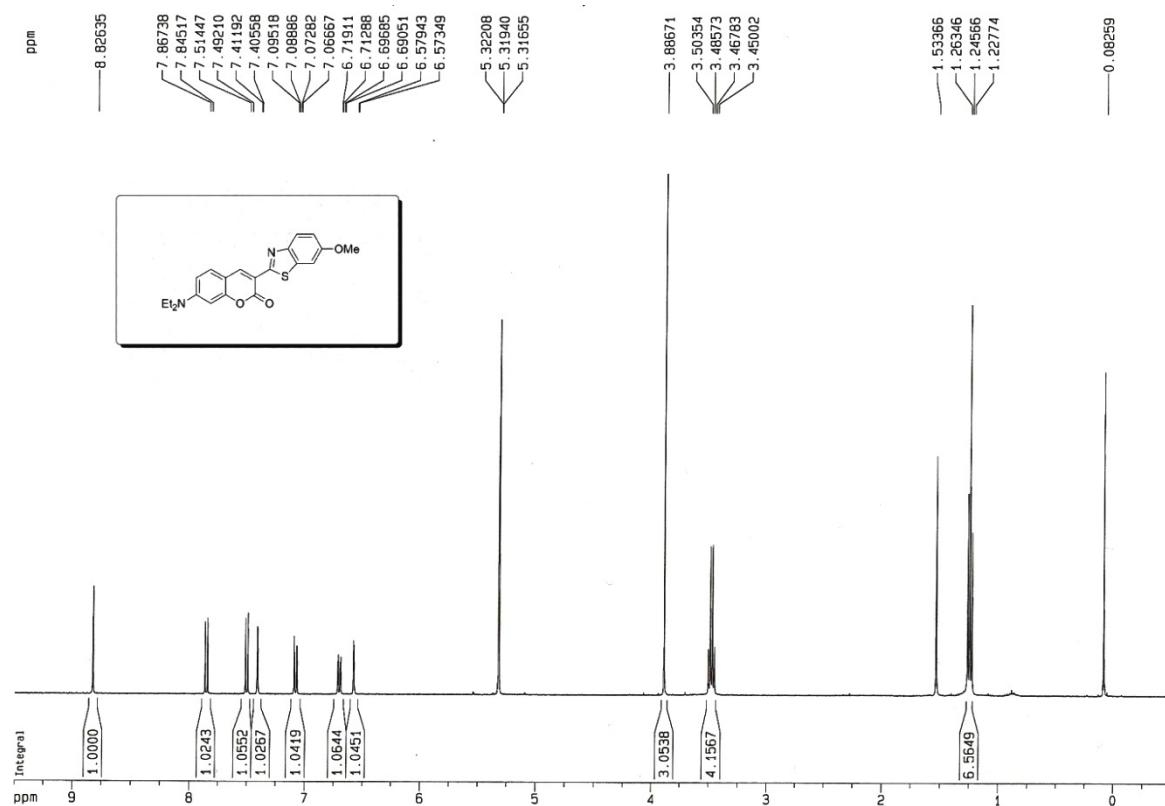


300 MHz, ^1H NMR in CD_2Cl_2

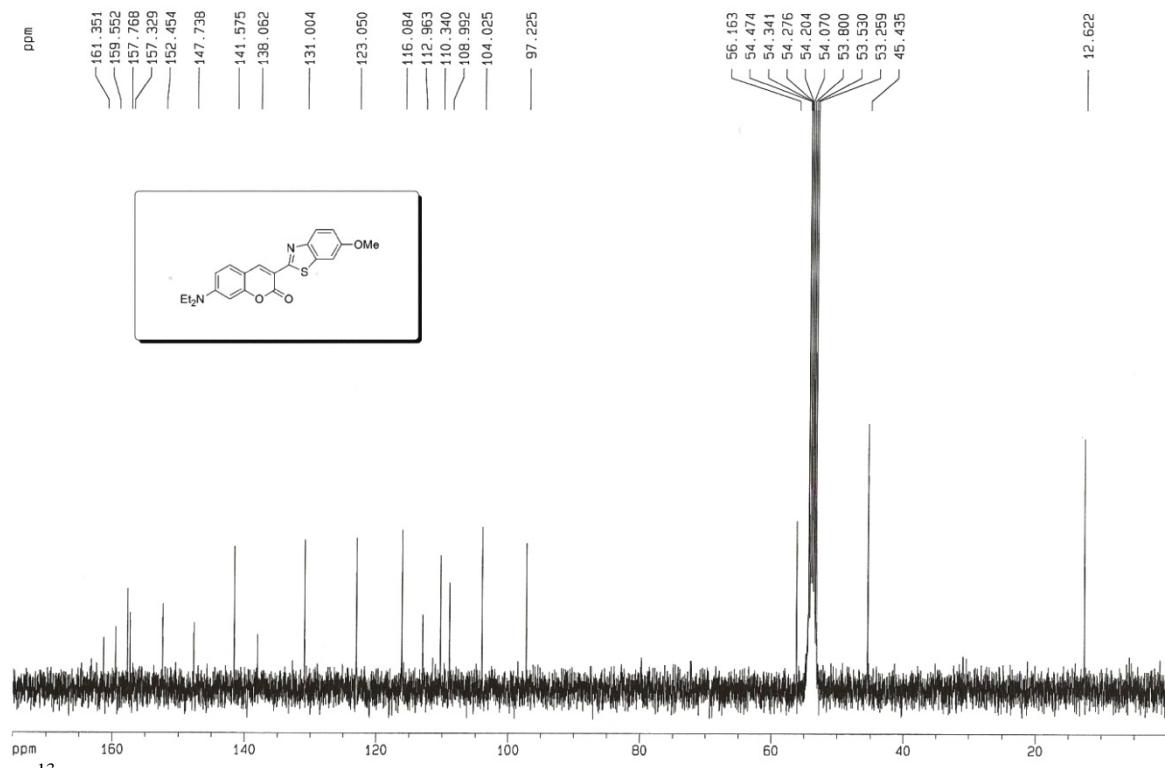


100 MHz, ^{13}C NMR in CD_2Cl_2

7-(diethylamino)-3-(6-methoxybenzo[d]thiazol-2-yl)-2H-chromen-2-one.

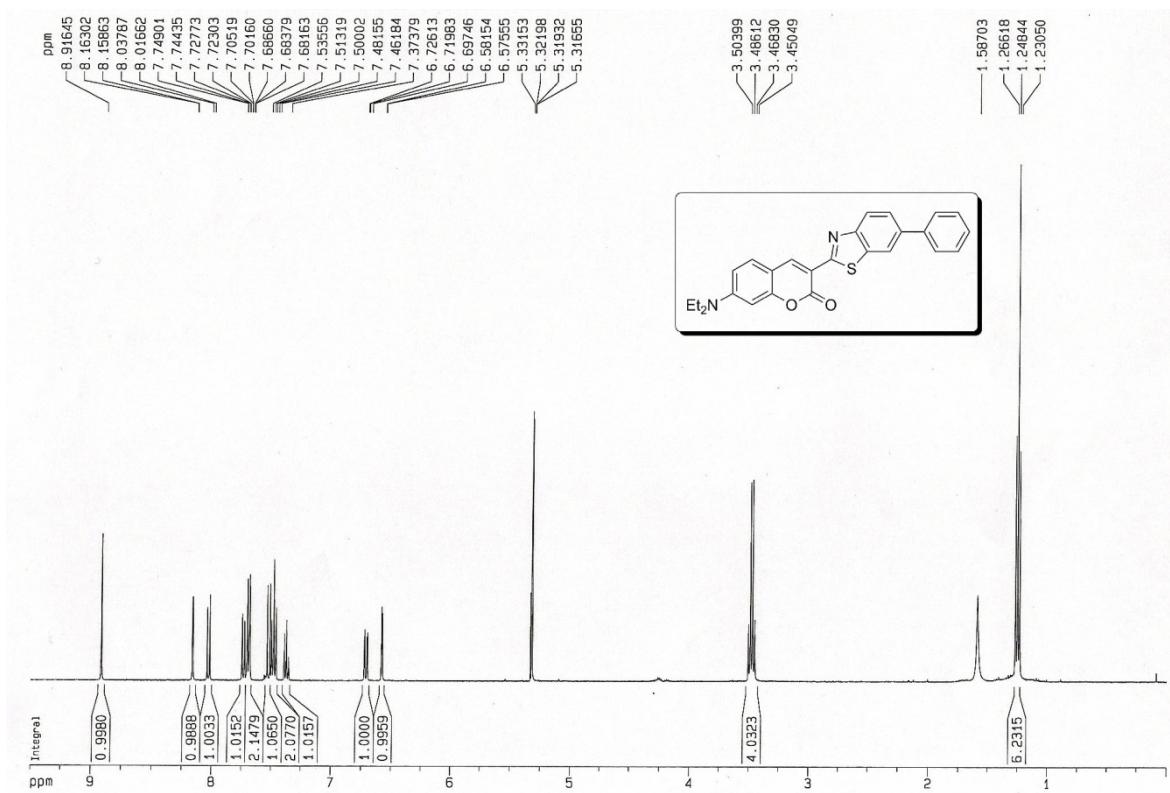


400 MHz, ^1H NMR in CD_2Cl_2

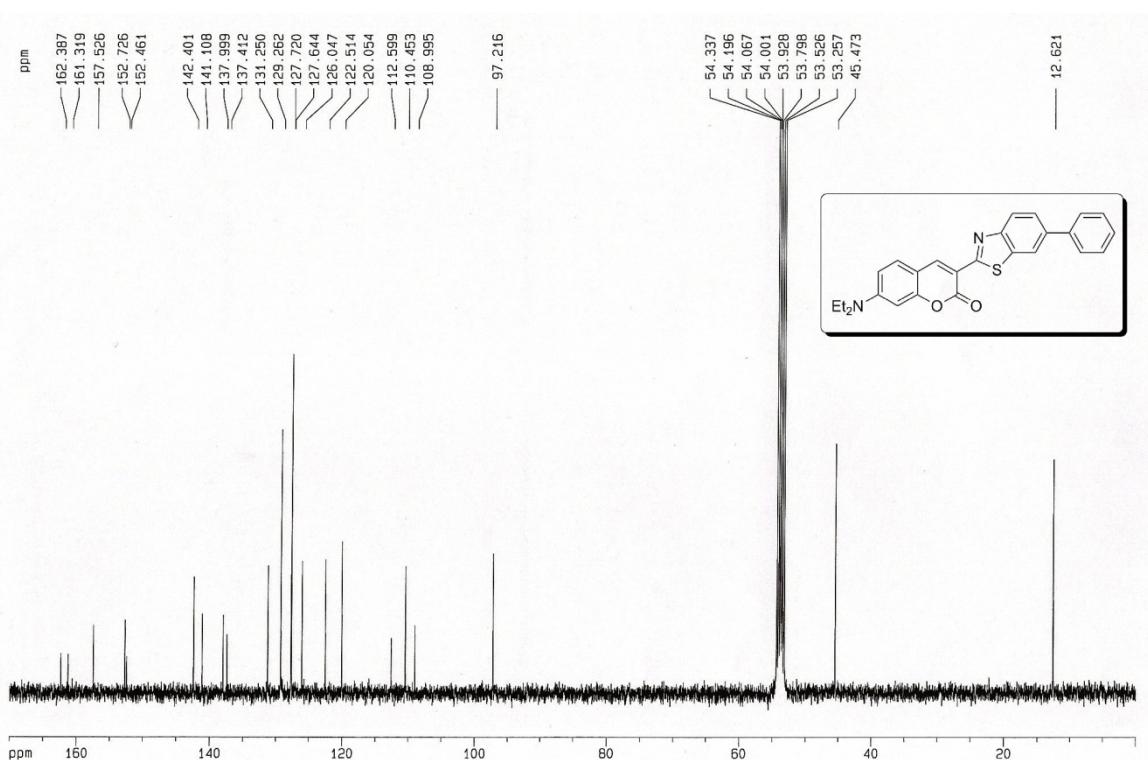


100 MHz, ^{13}C NMR in CD_2Cl_2

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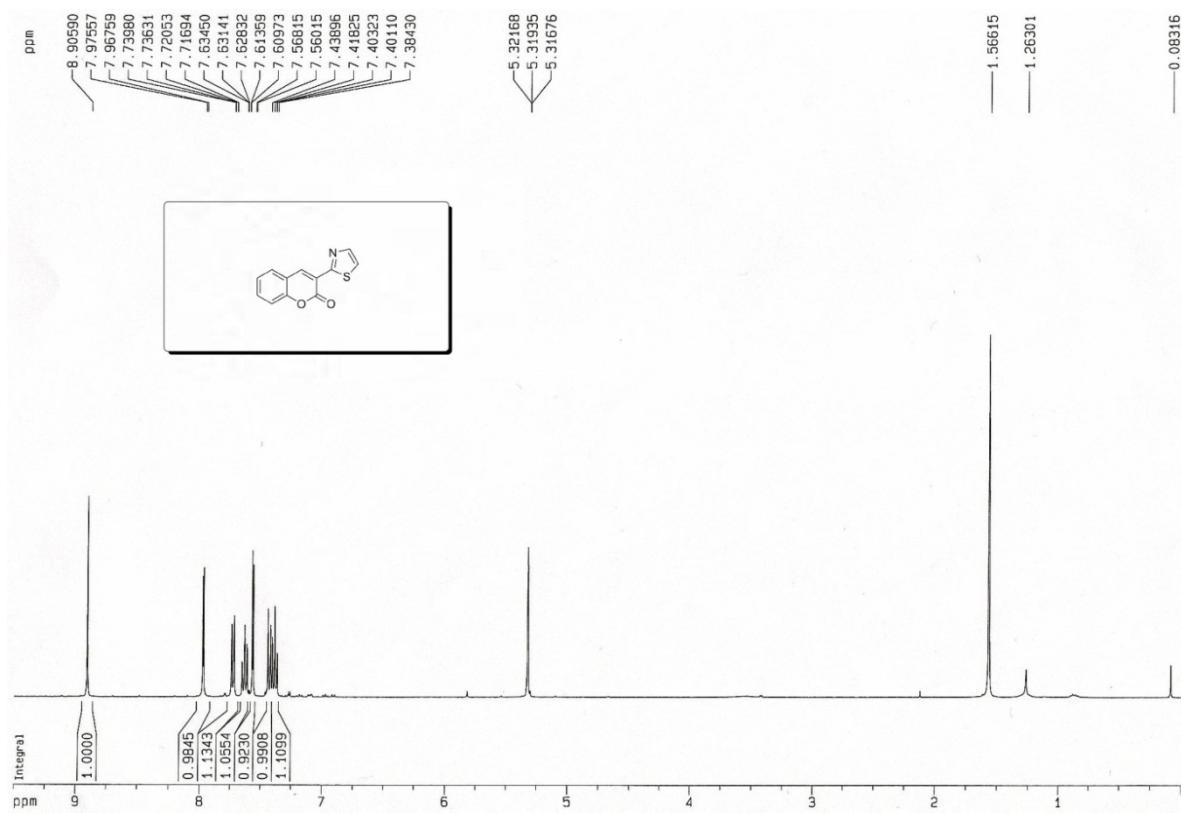


400 MHz, ^1H NMR in CD_2Cl_2

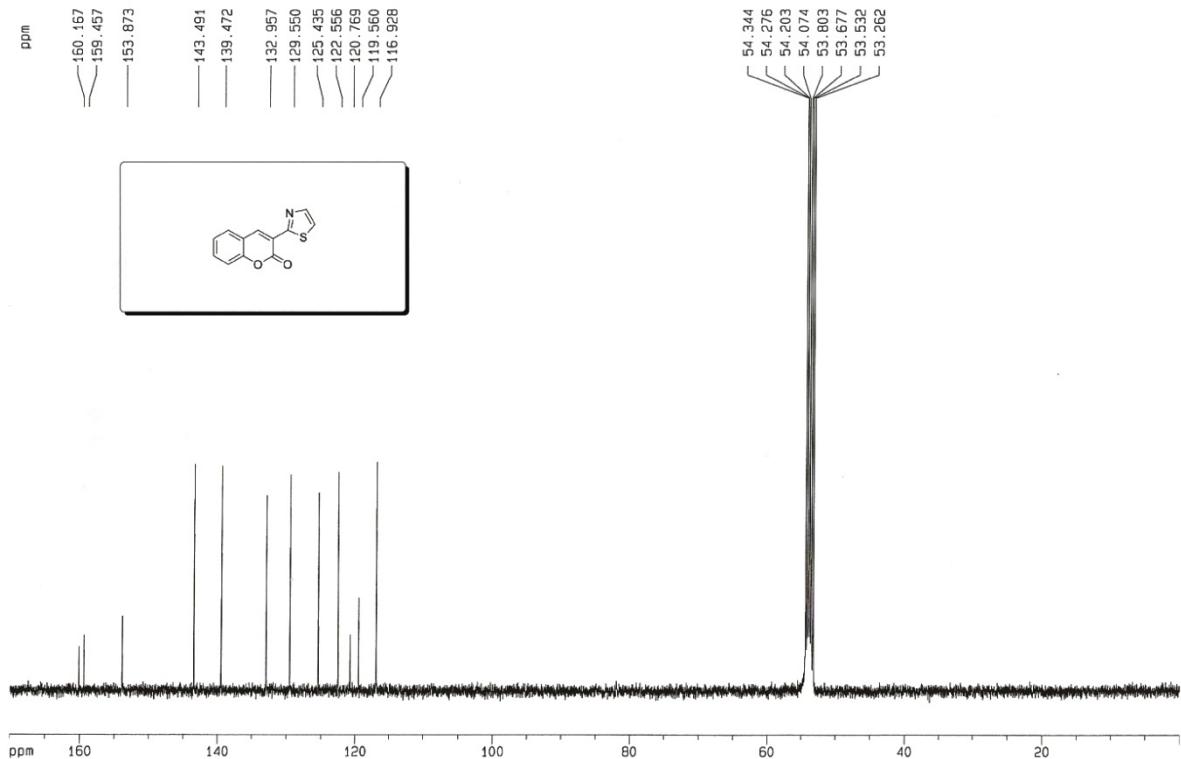


100 MHz, ^{13}C NMR in CD_2Cl_2

3-(thiazol-2-yl)-2H-chromen-2-one.



400 MHz, ^1H NMR in CD_2Cl_2

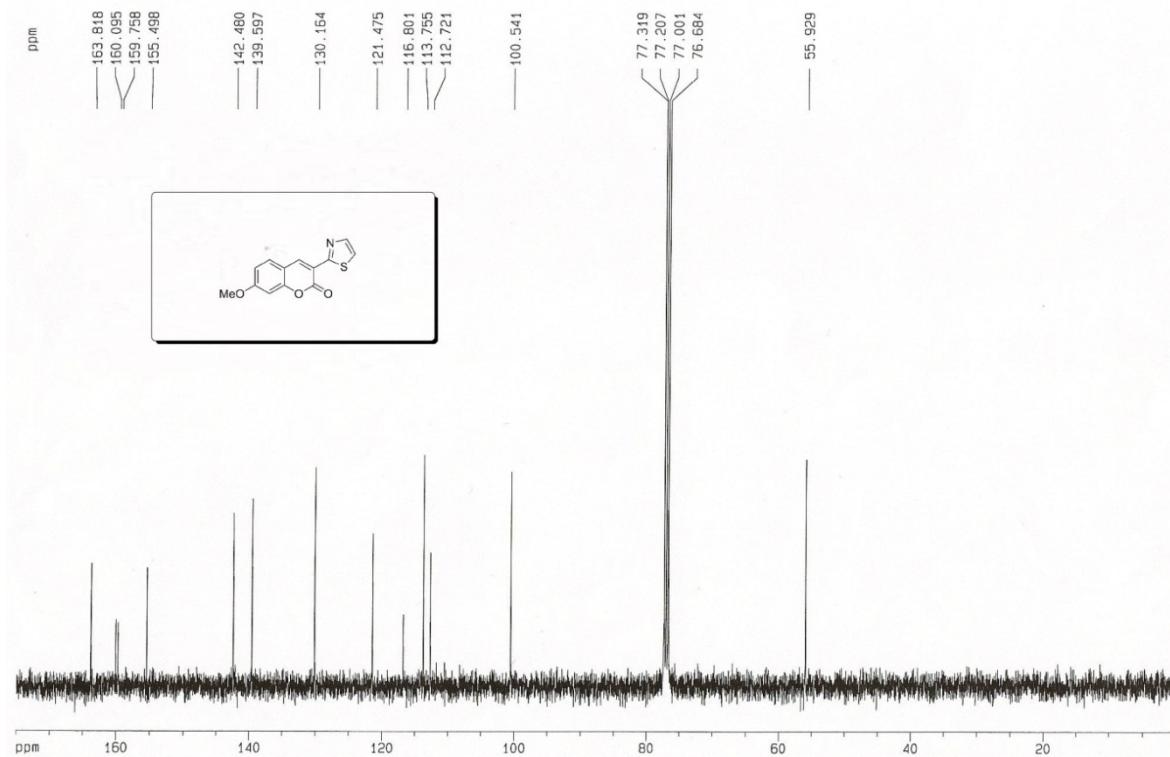


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7-methoxy-3-(thiazol-2-yl)-2H-chromen-2-one.

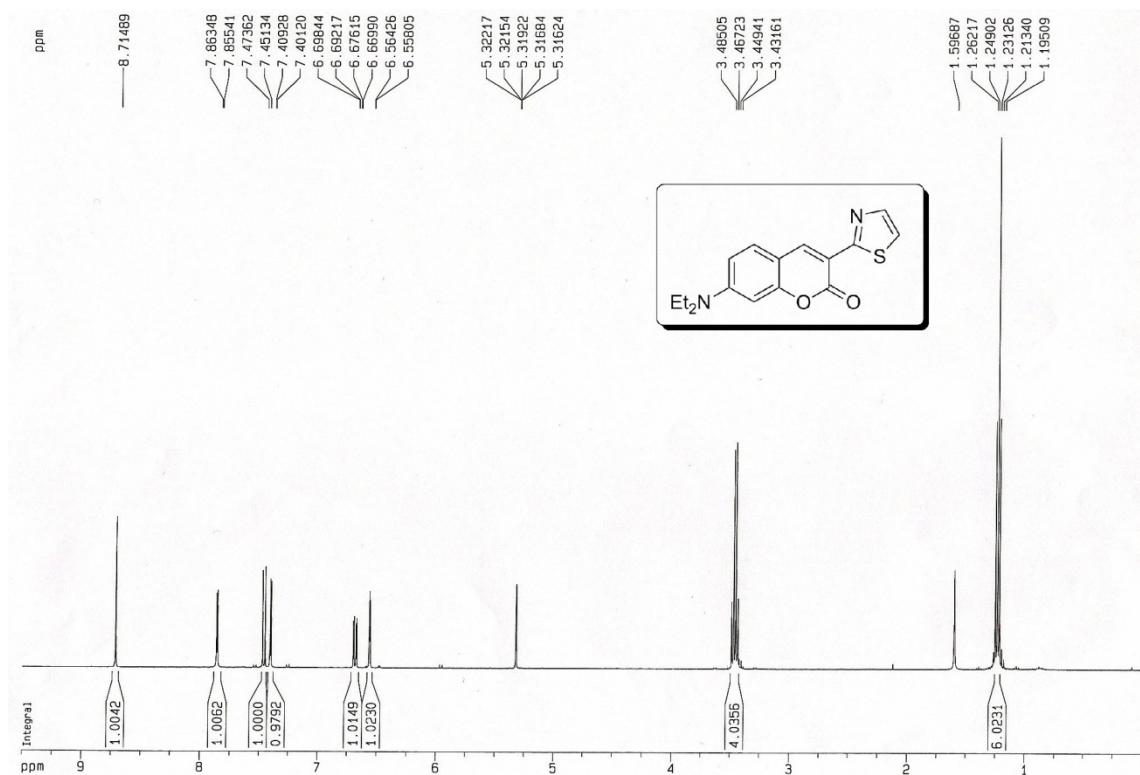


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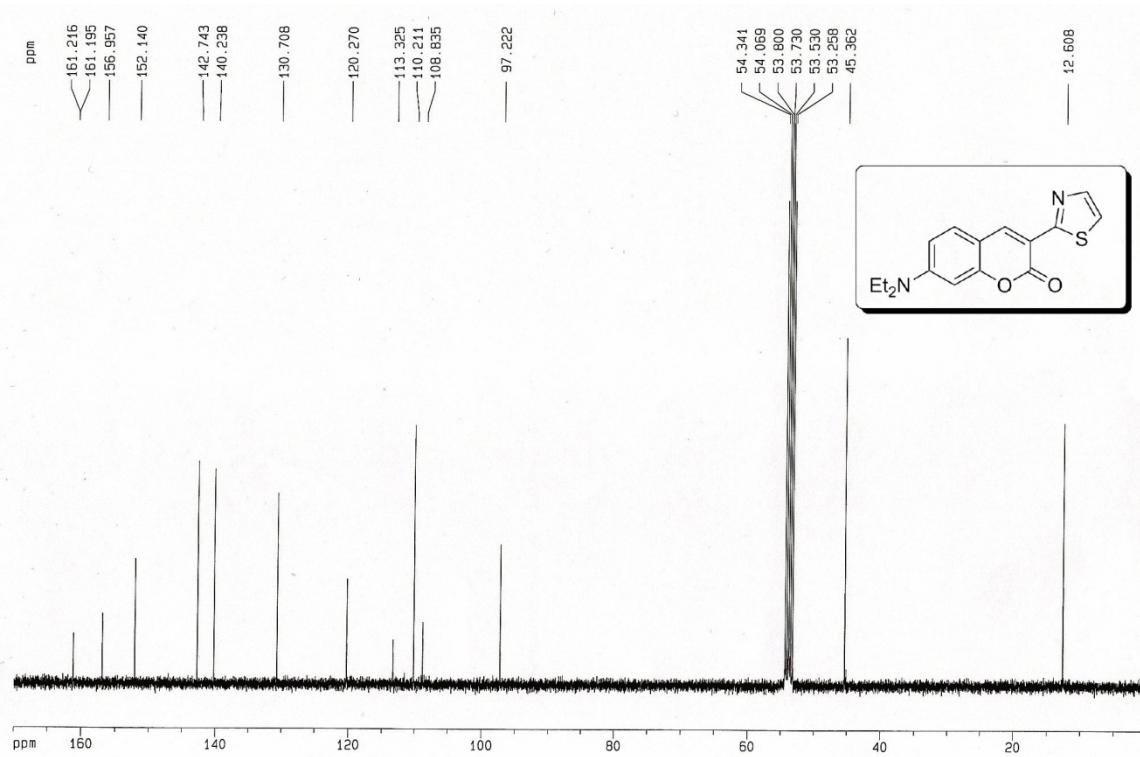


100 MHz, ^{13}C NMR in CDCl_3

7-(diethylamino)-3-(thiazol-2-yl)-2H-chromen-2-one.

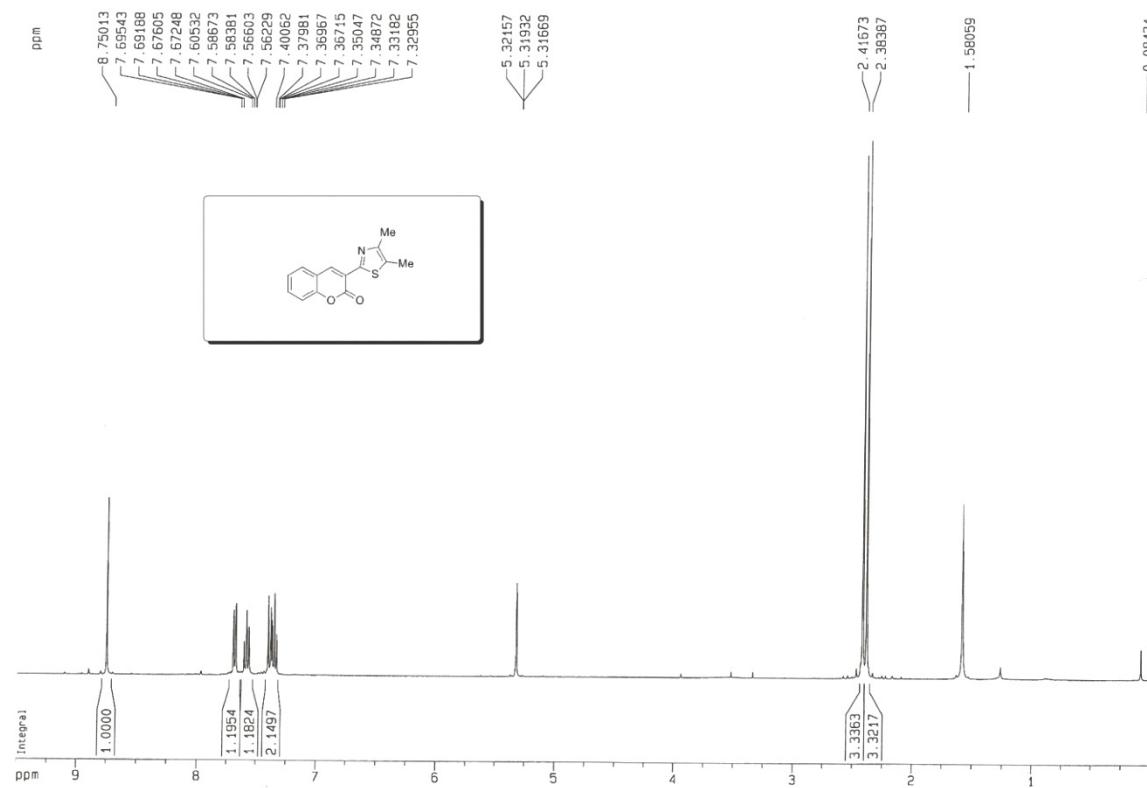


400 MHz, ^1H NMR in CD_2Cl_2

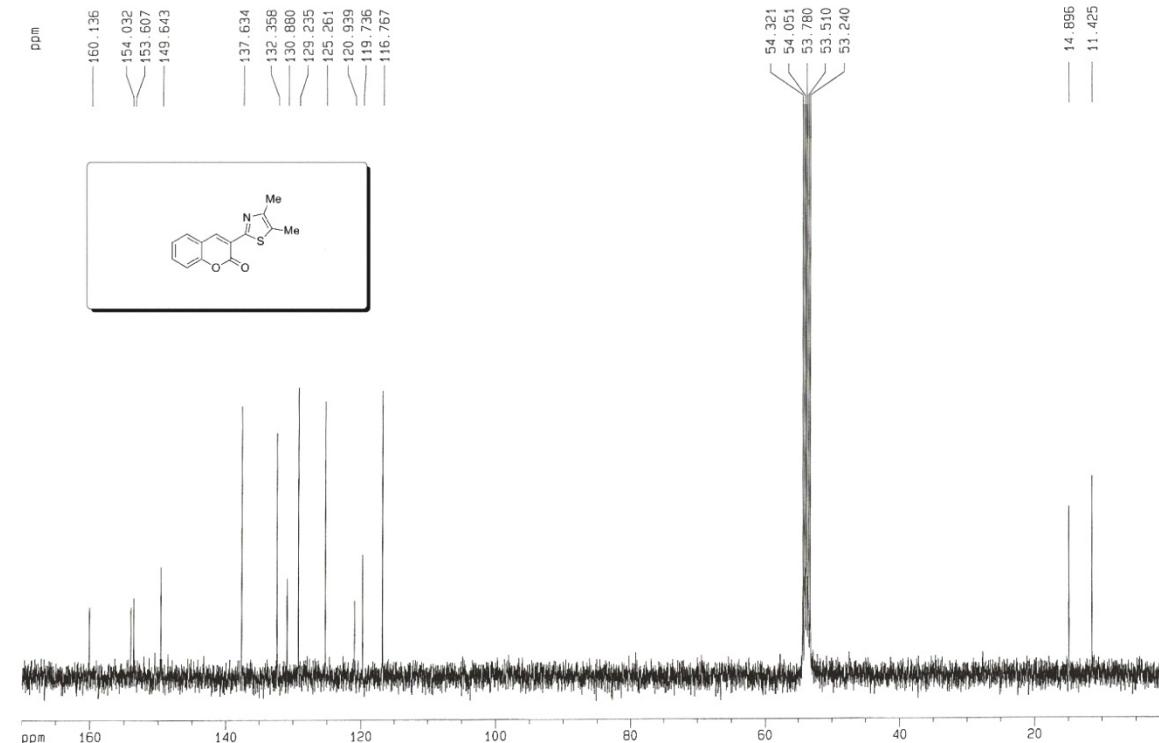


100 MHz, ^{13}C NMR in CD_2Cl_2

3-(4,5-dimethylthiazol-2-yl)-2H-chromen-2-one.

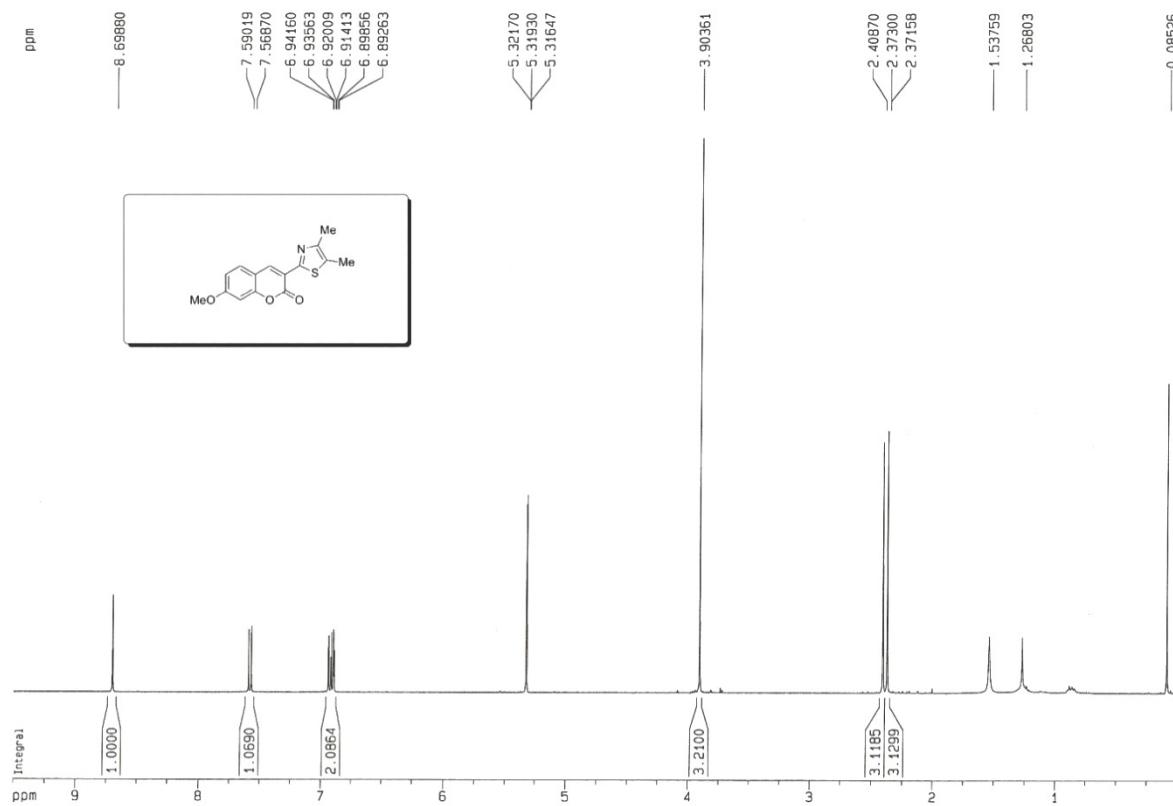


400 MHz, ^1H NMR in CD_2Cl_2

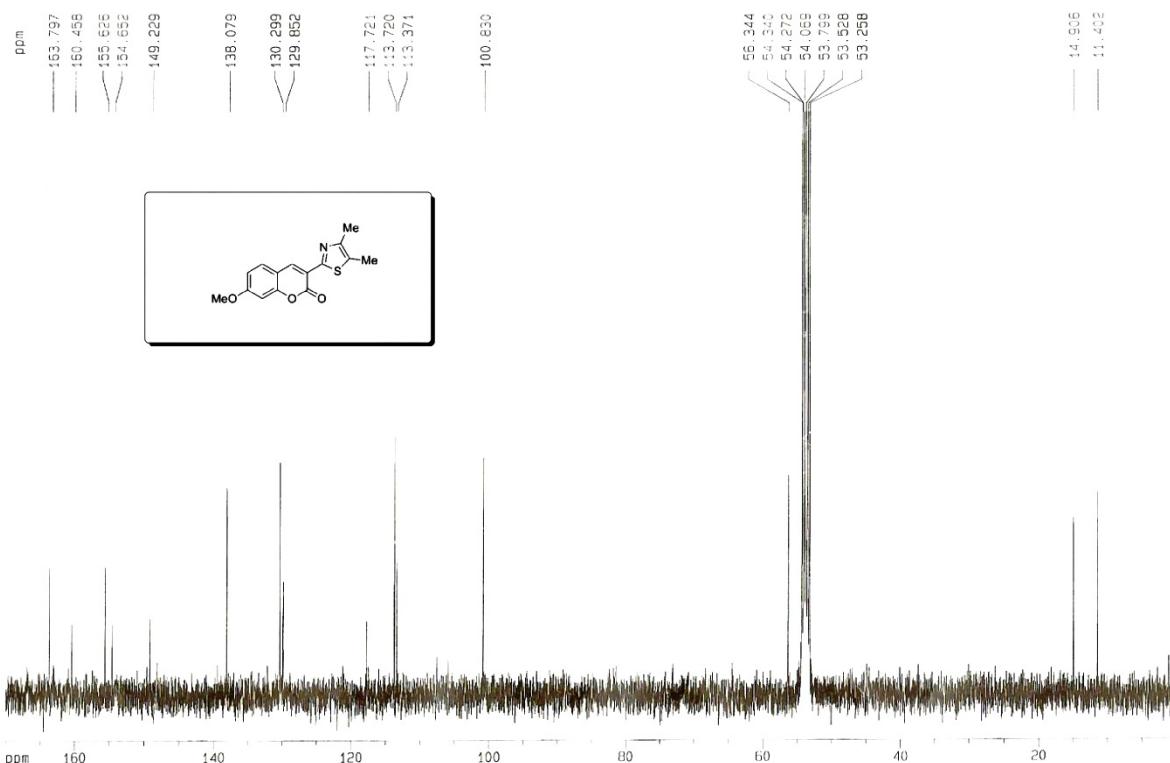


100 MHz, ^{13}C NMR in CD_2Cl_2

3-(4,5-dimethylthiazol-2-yl)-7-methoxy-2H-chromen-2-one.

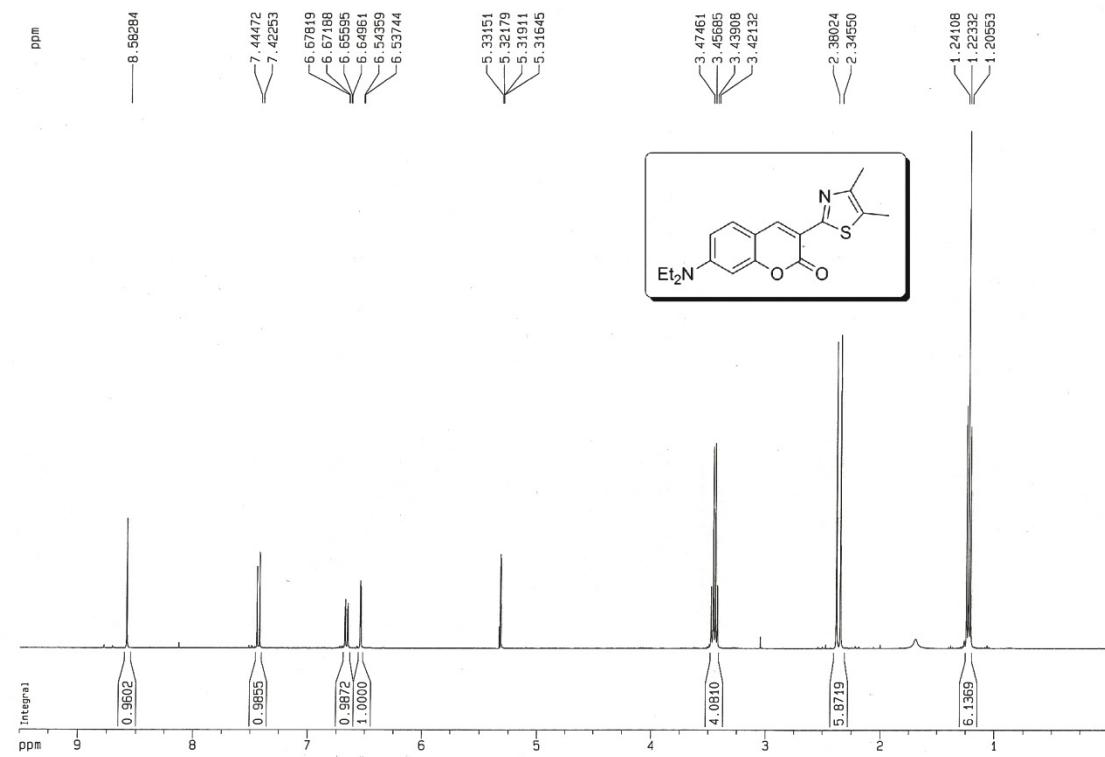


400 MHz, ^1H NMR in CD_2Cl_2

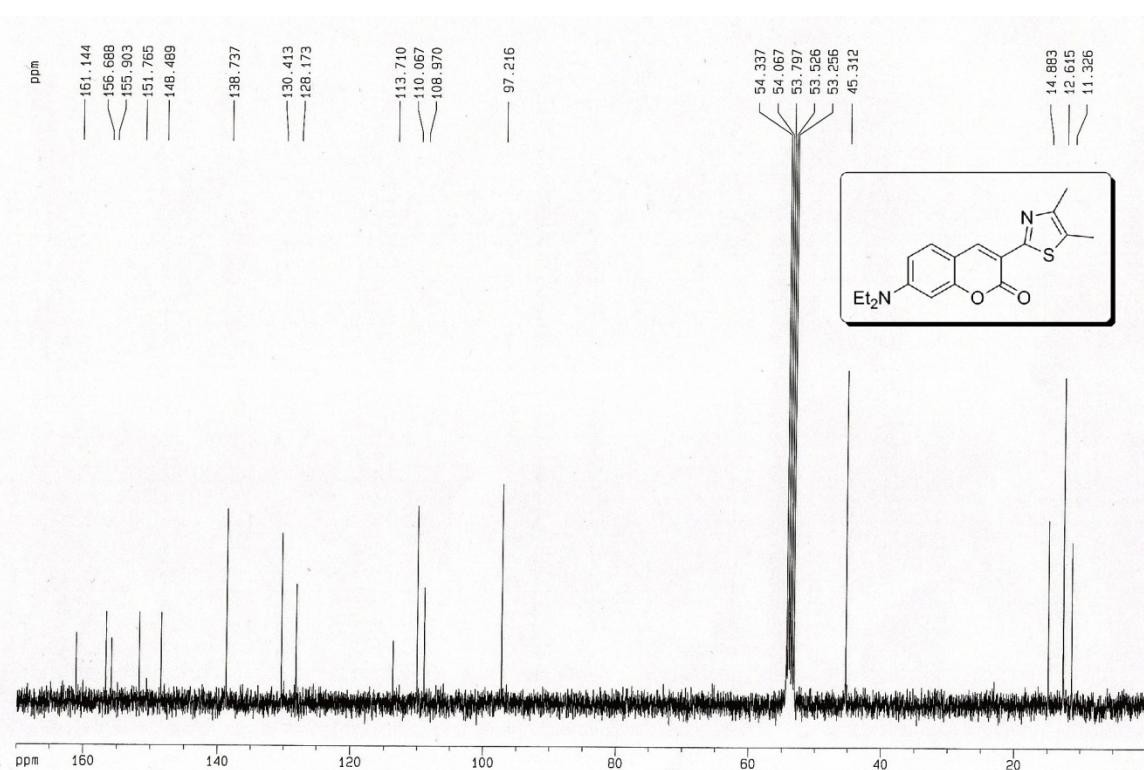


100 MHz, ^{13}C NMR in CD_2Cl_2

7-(diethylamino)-3-(4,5-dimethylthiazol-2-yl)-2H-chromen-2-one.

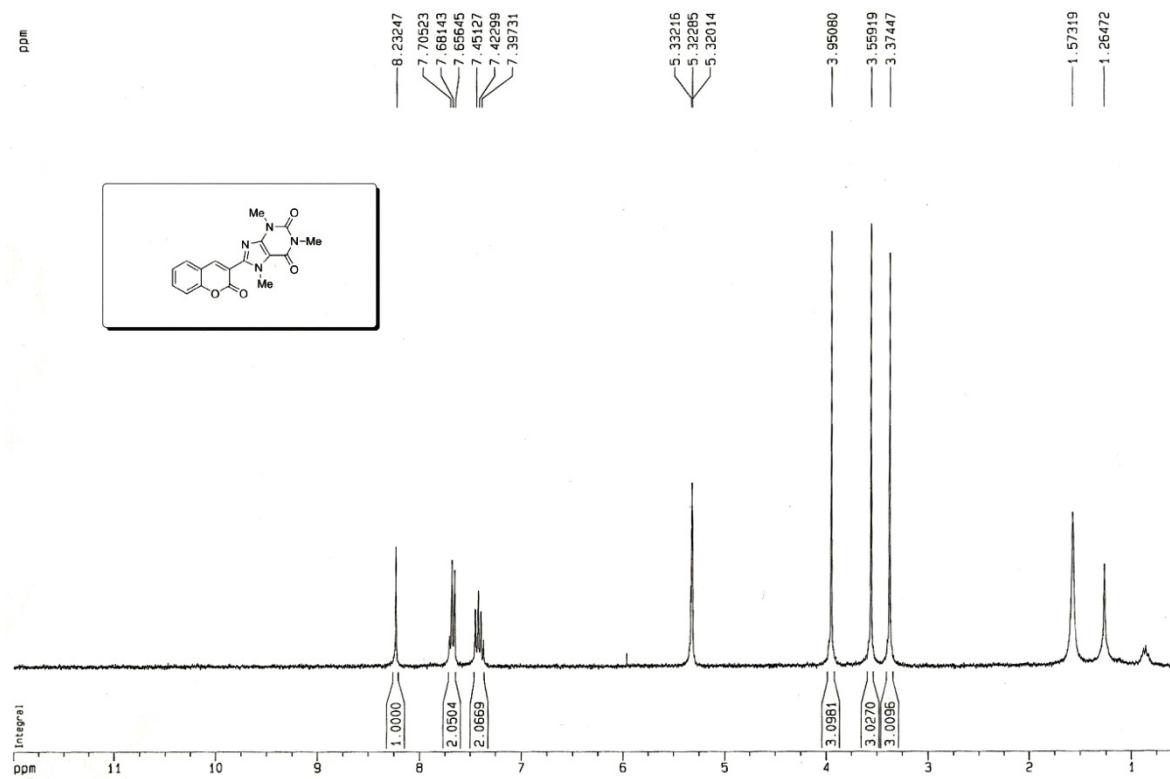


400 MHz, ^1H NMR in CD_2Cl_2

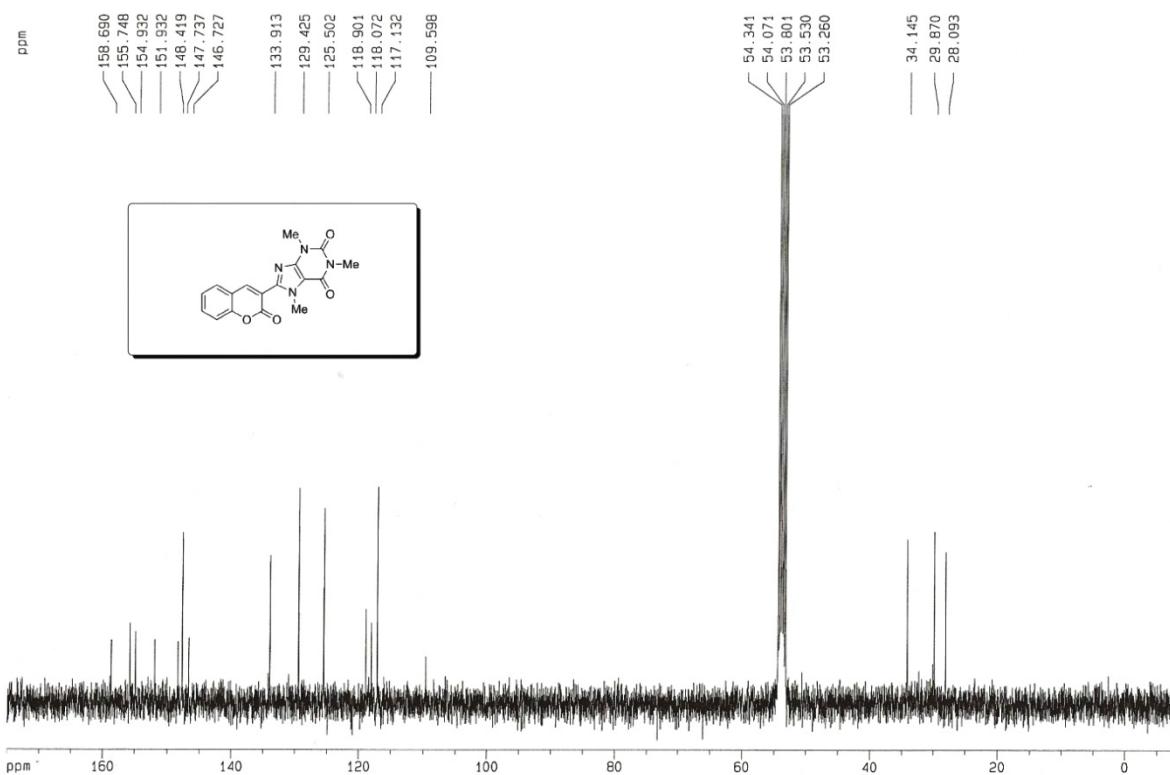


100 MHz, ^{13}C NMR in CD_2Cl_2

1,3,7-trimethyl-8-(2-oxo-2H-chromen-3-yl)-3,4,5,7-tetrahydro-1H-purine-2,6-dione.

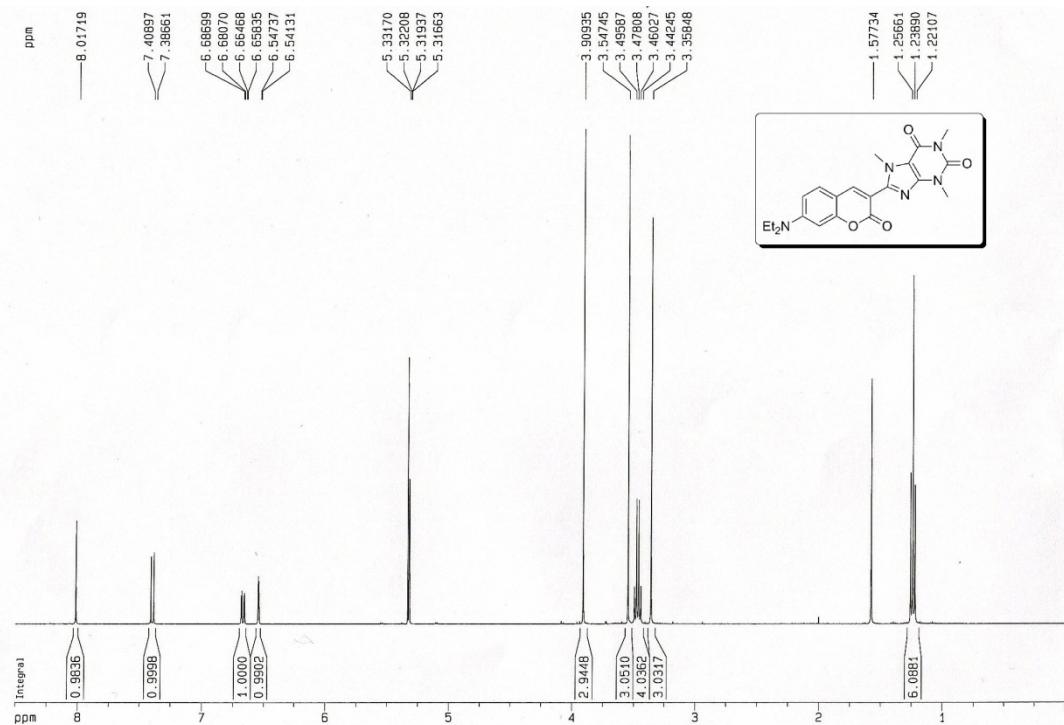


300 MHz, ^1H NMR in CD_2Cl_2

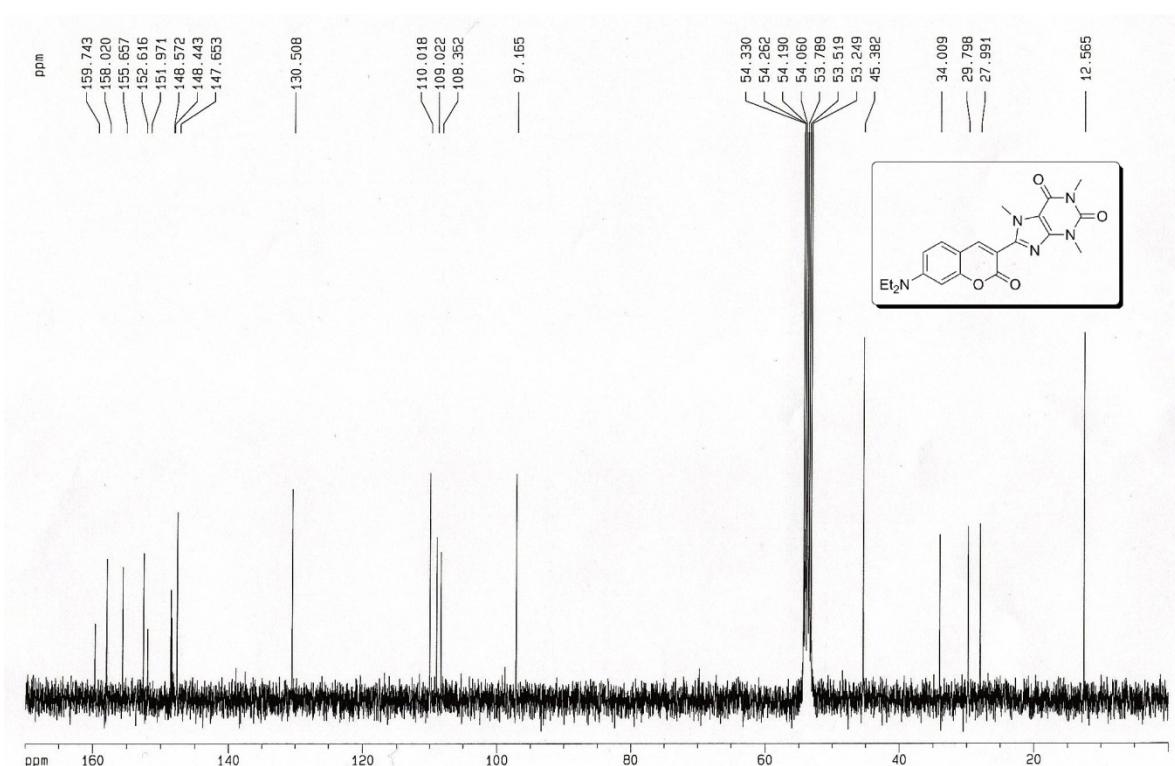


100 MHz, ^{13}C NMR in CD_2Cl_2

8-(7-(diethylamino)-2-oxo-2H-chromen-3-yl)-1,3,7-trimethyl-1H-purine-2,6(3H,7H)-dione.



400 MHz, ^1H NMR in CD_2Cl_2



100 MHz, ^{13}C NMR in CD_2Cl_2