

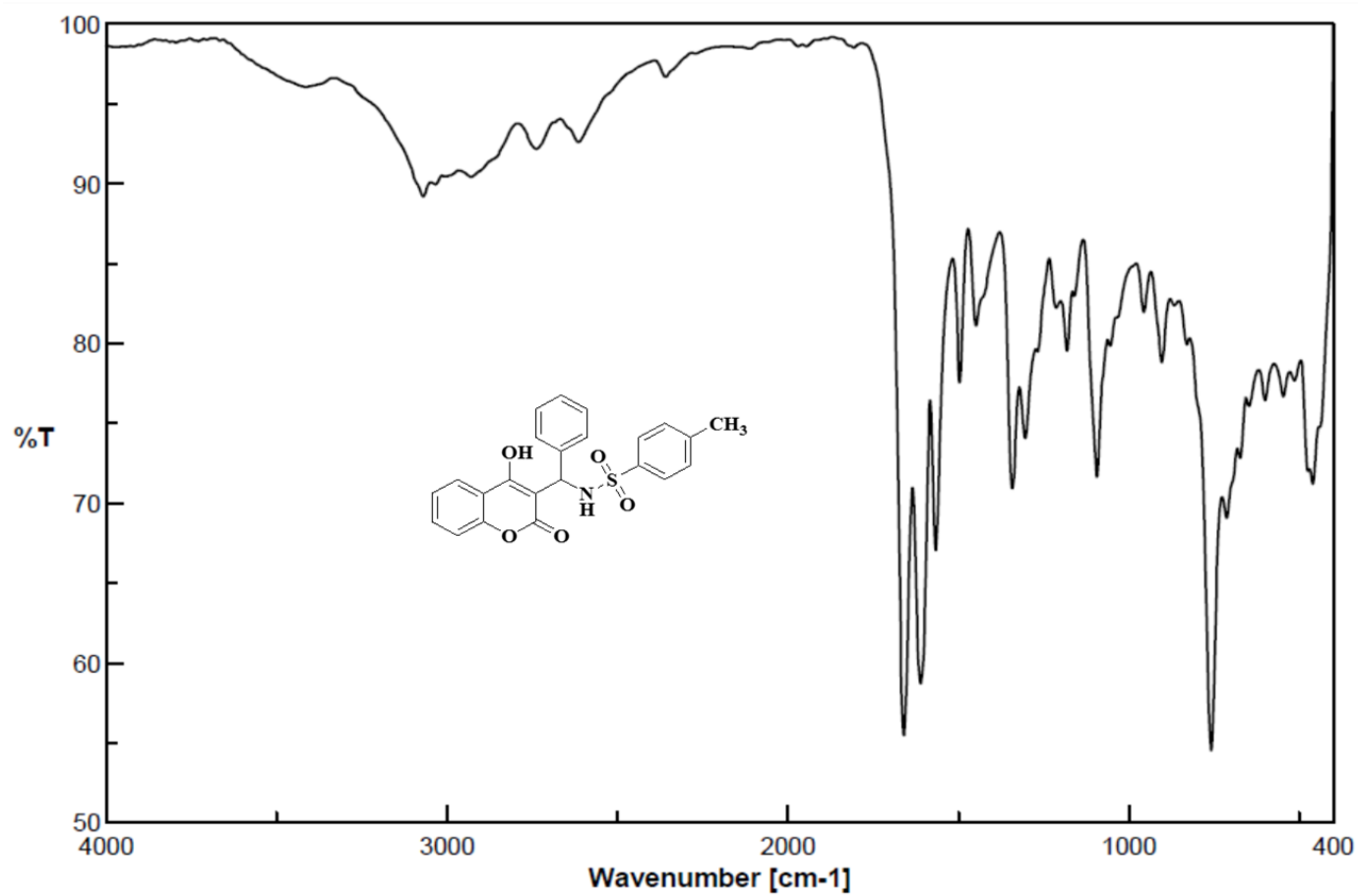
Supporting Information

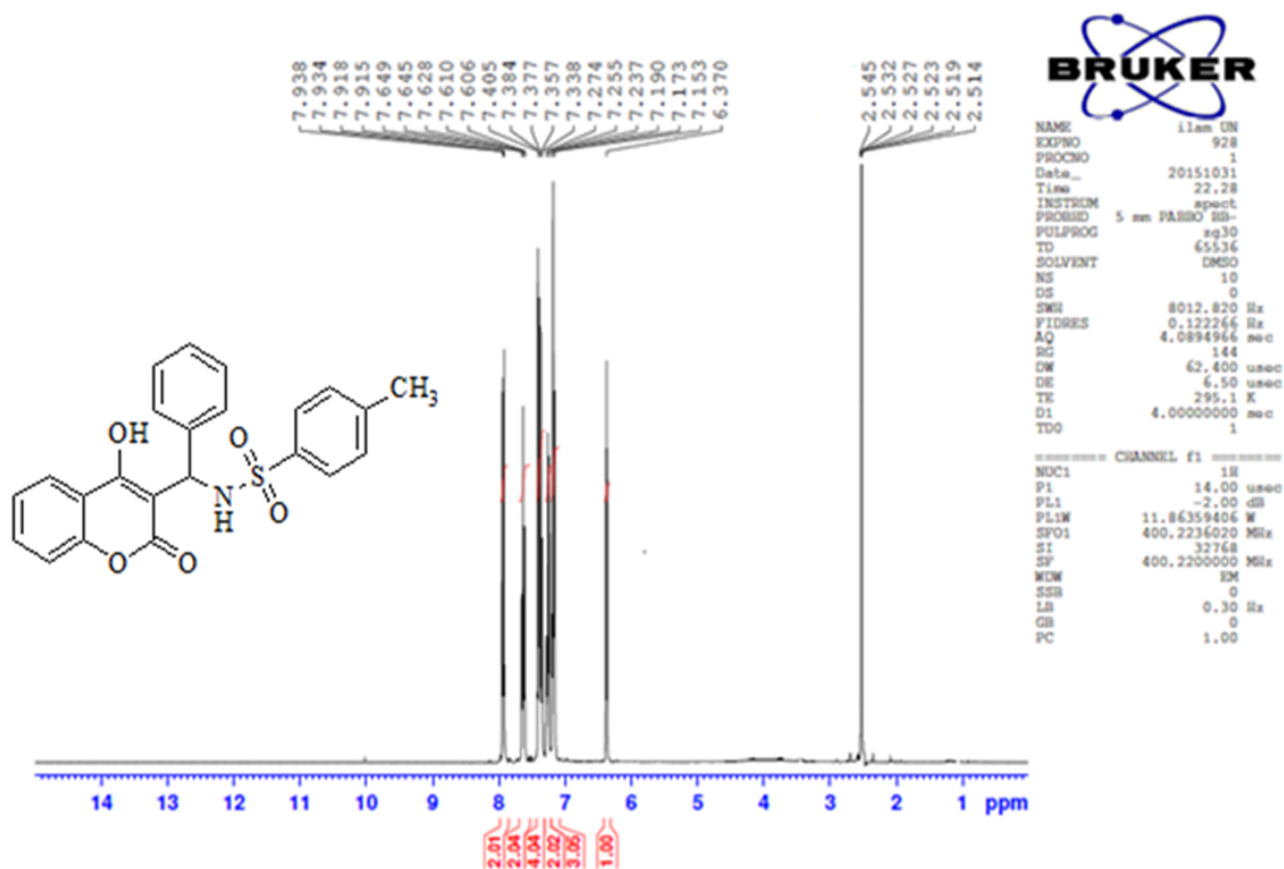
Molybdic Acid-Functionalized Nano-Fe₃O₄@TiO₂ as a Novel and Magnetically Separable Catalyst for the Synthesis of Coumarin-Containing Sulfonamide Derivatives

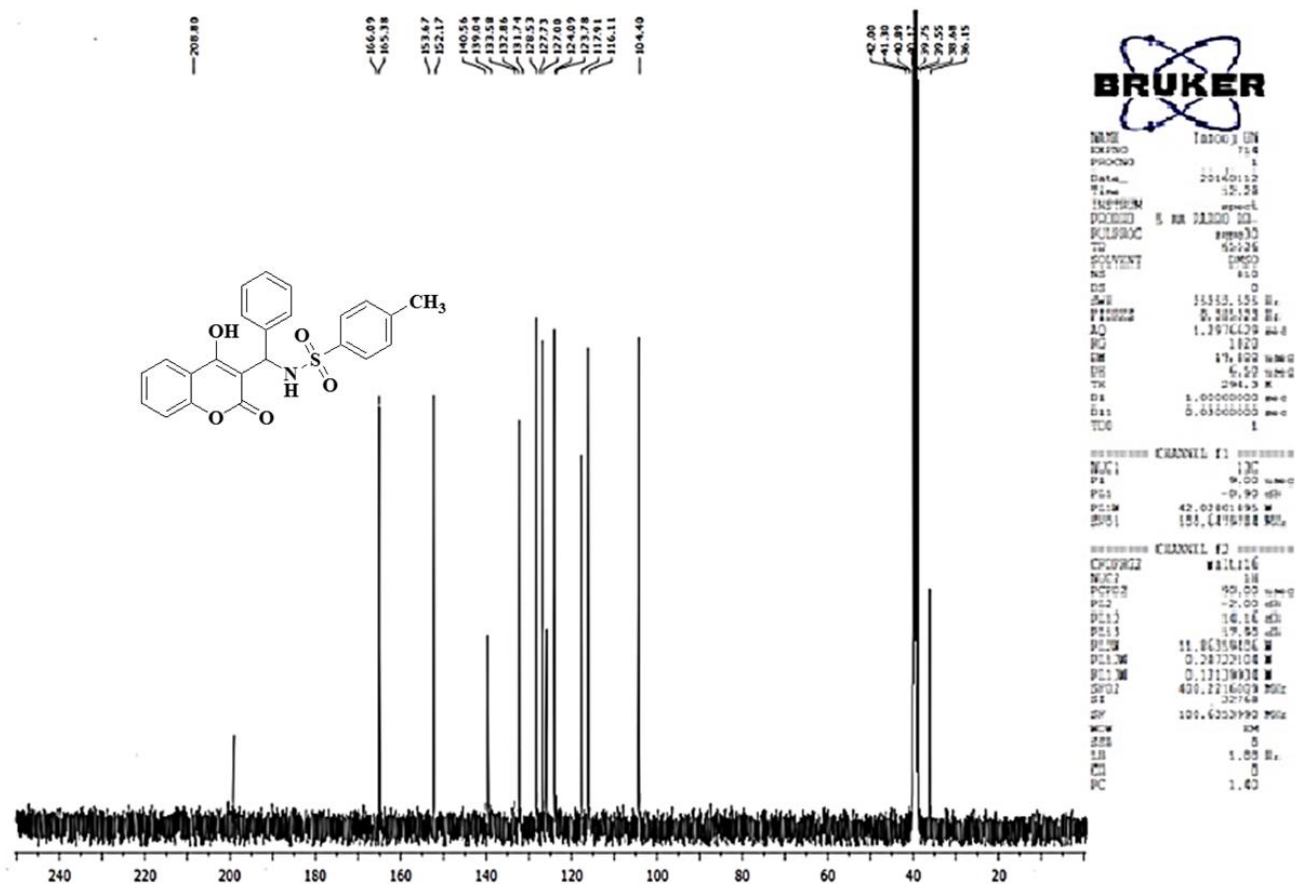
Jamileh Etemad Gholtash, Mahnaz Farahi,* Bahador Karami and Mahsa Abdollahi

Department of Chemistry, Yasouj University, P. O. Box 353, Yasouj 75918-74831, Iran

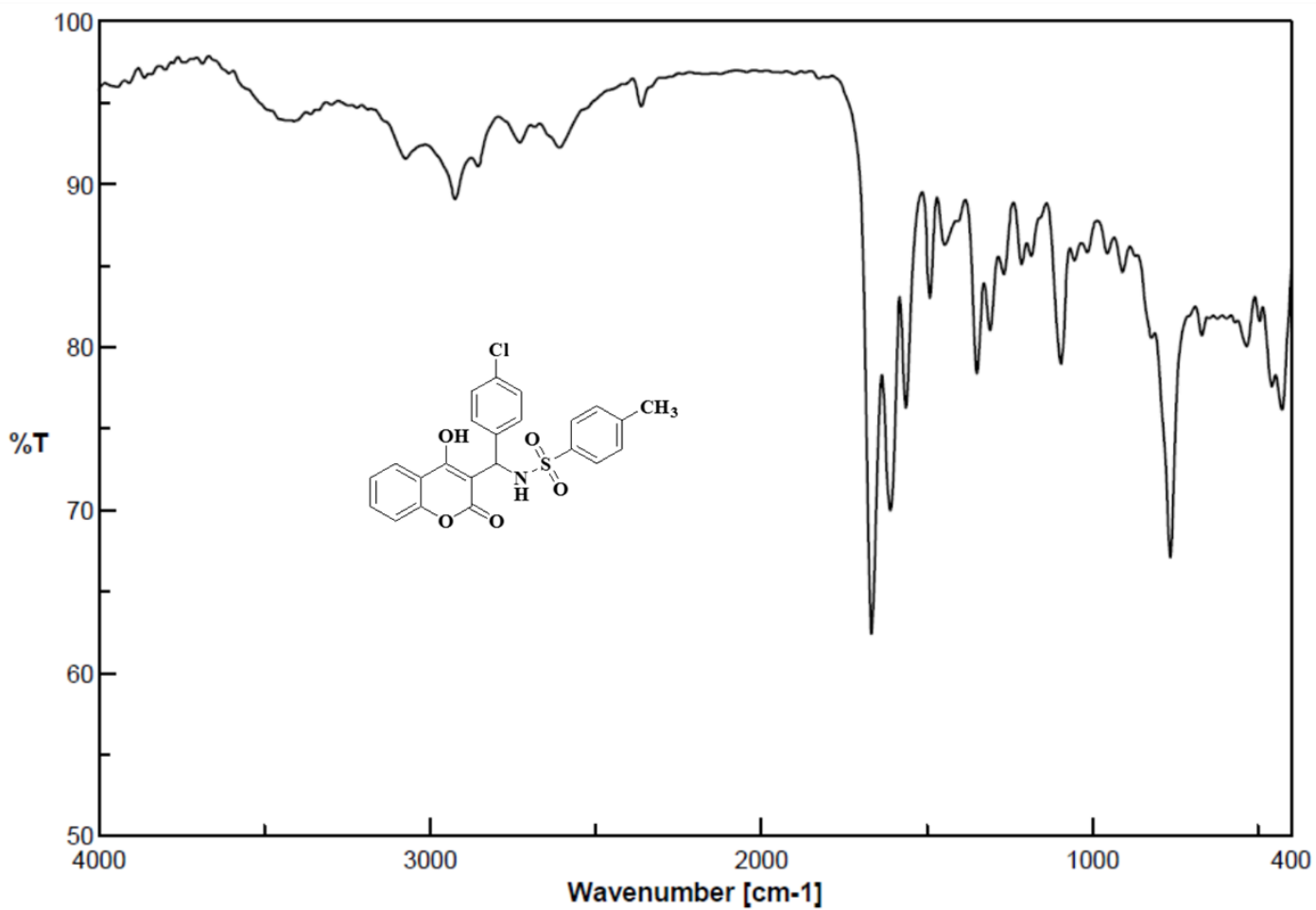
**Corresponding author: E-mail: farahimb@yu.ac.ir*



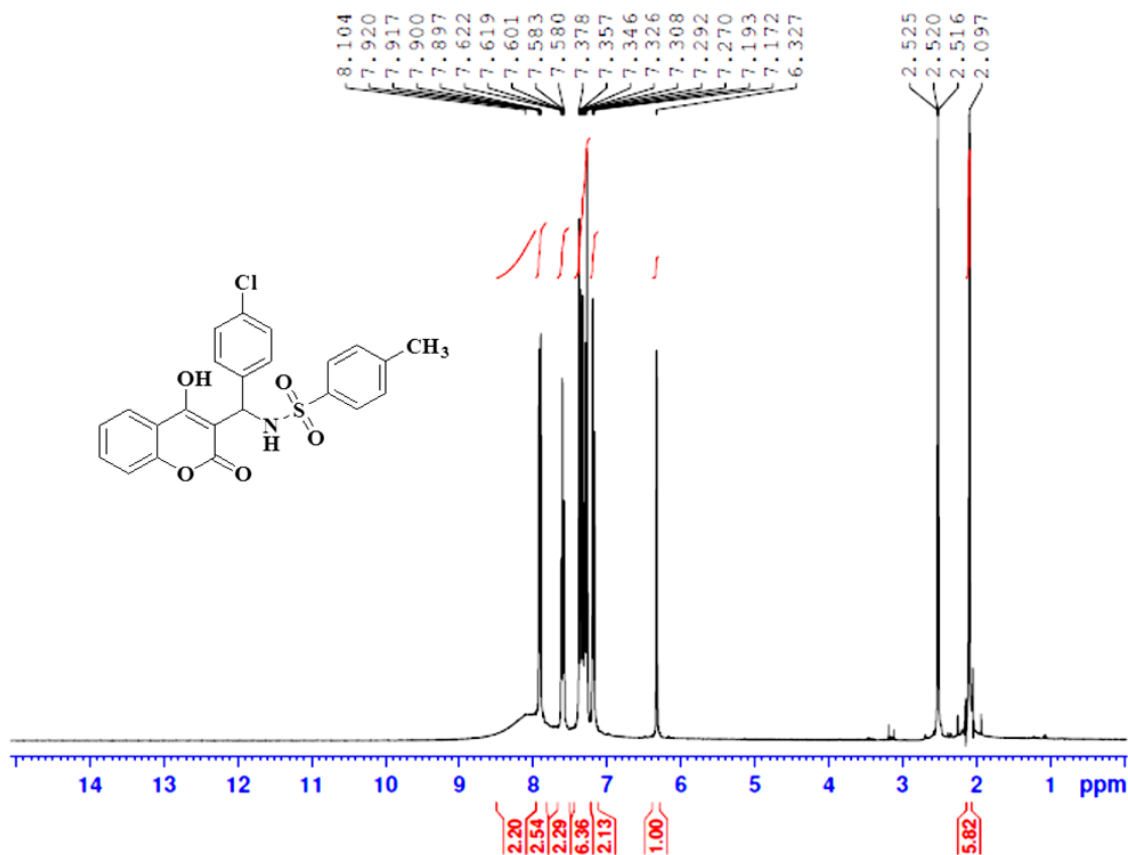




Anal. Calcd for C₂₃H₁₉NO₅S: C, 65.54; H, 4.54; N, 3.32. Found: C, 65.50; H, 4.58, N, 3.34.

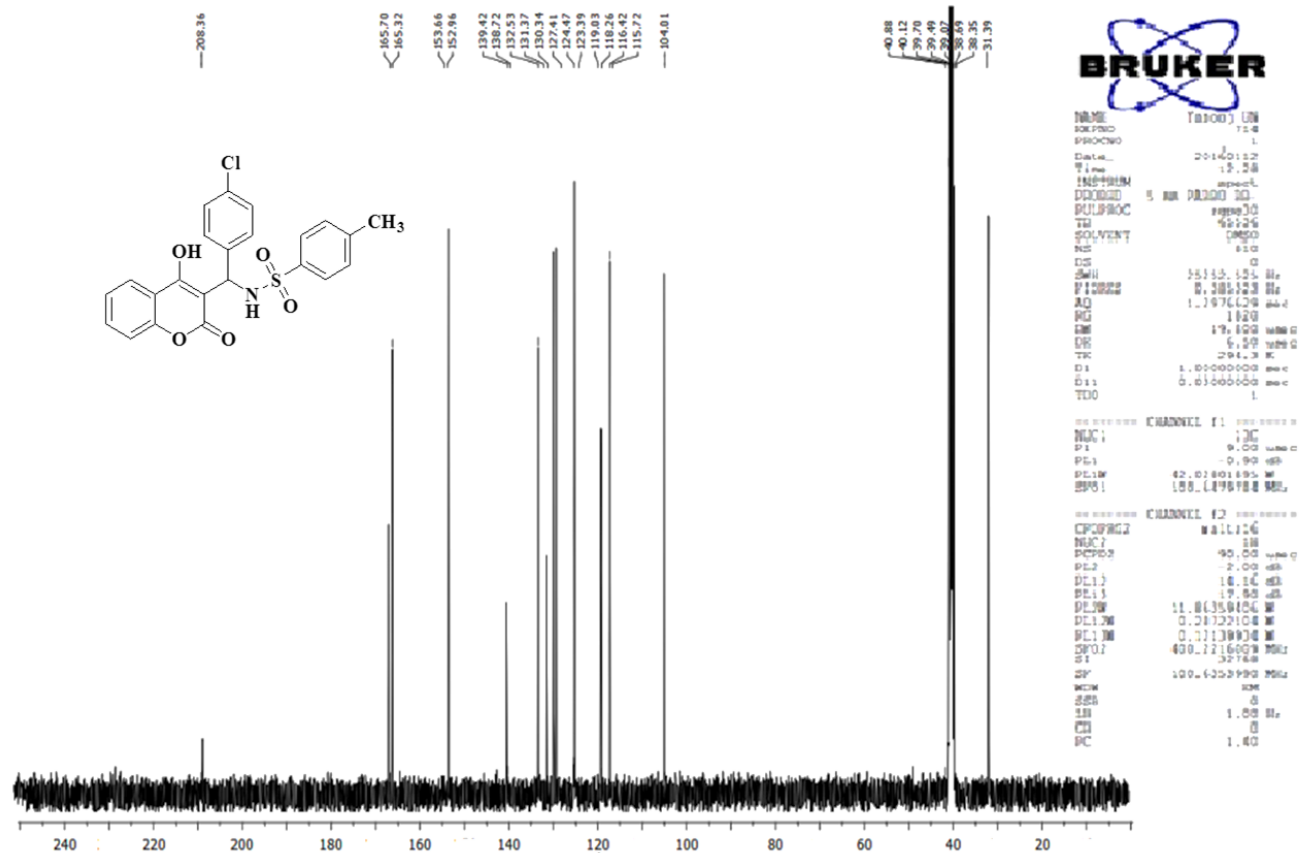


Sample code: K (abdollahi)

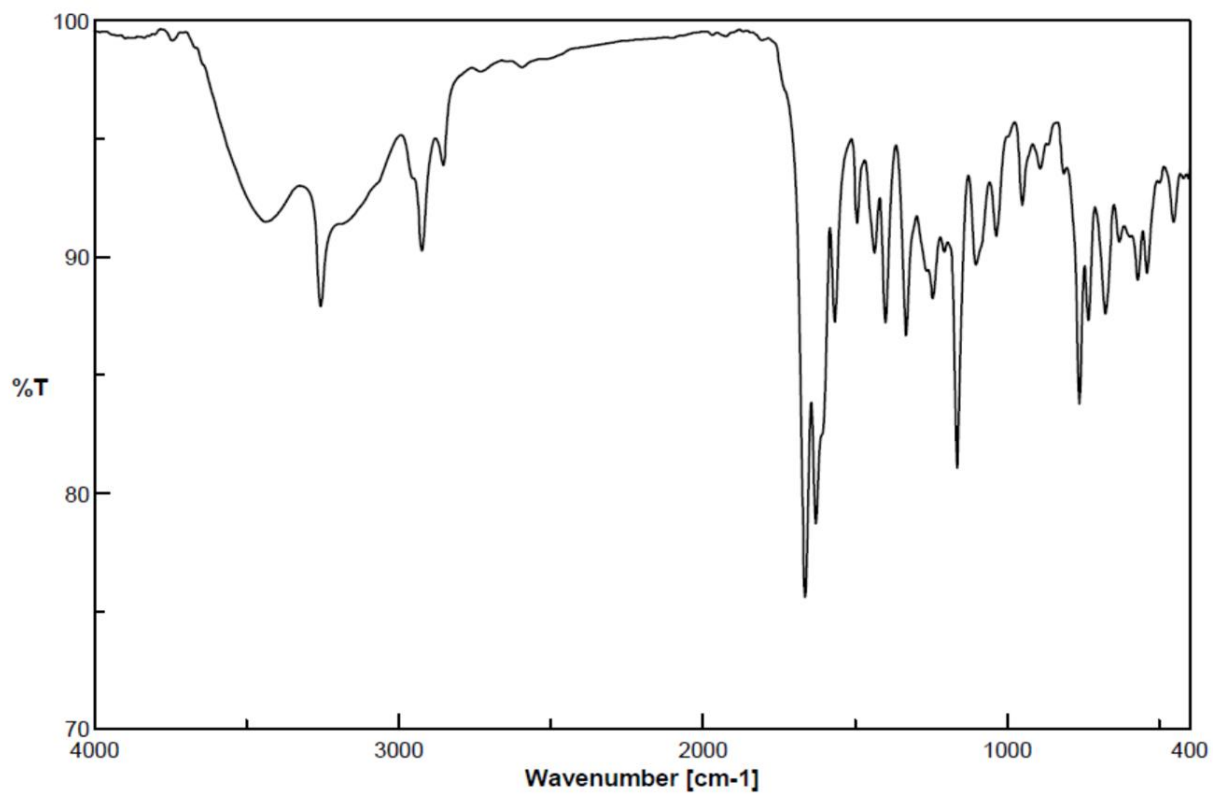
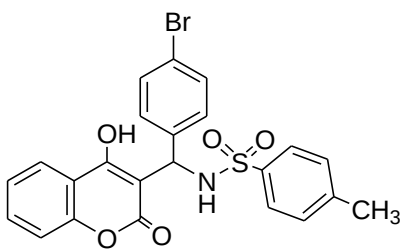


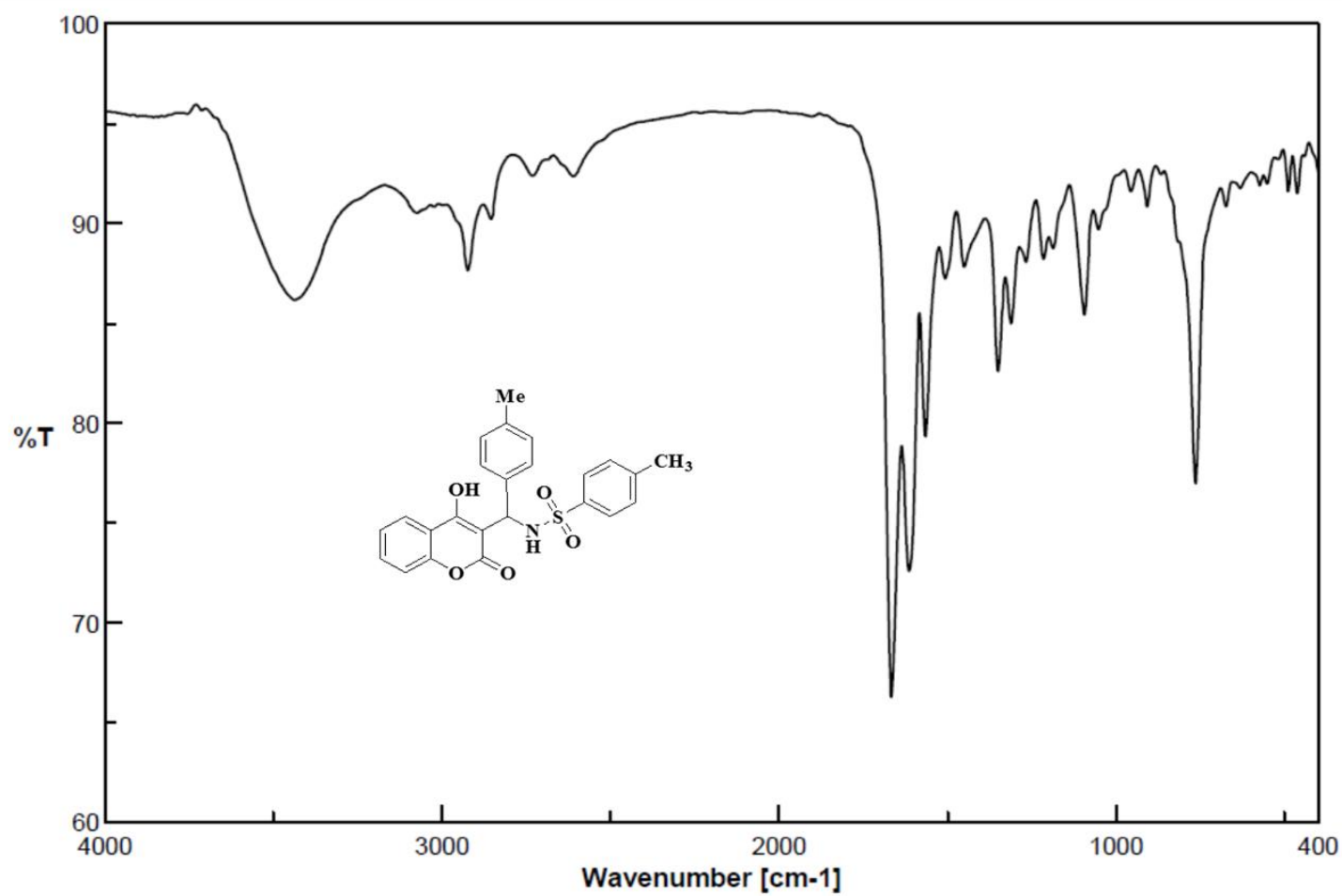
NAME Yasooj UN
EXPNO 706
PROCNO 1
Date_ 20160109
Time 16.39
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 128
DW 62.400 usec
DE 6.50 usec
TE 294.5 K
D1 4.00000000 sec
TDO 1

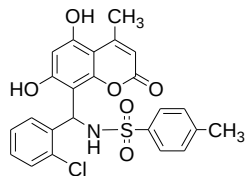
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NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



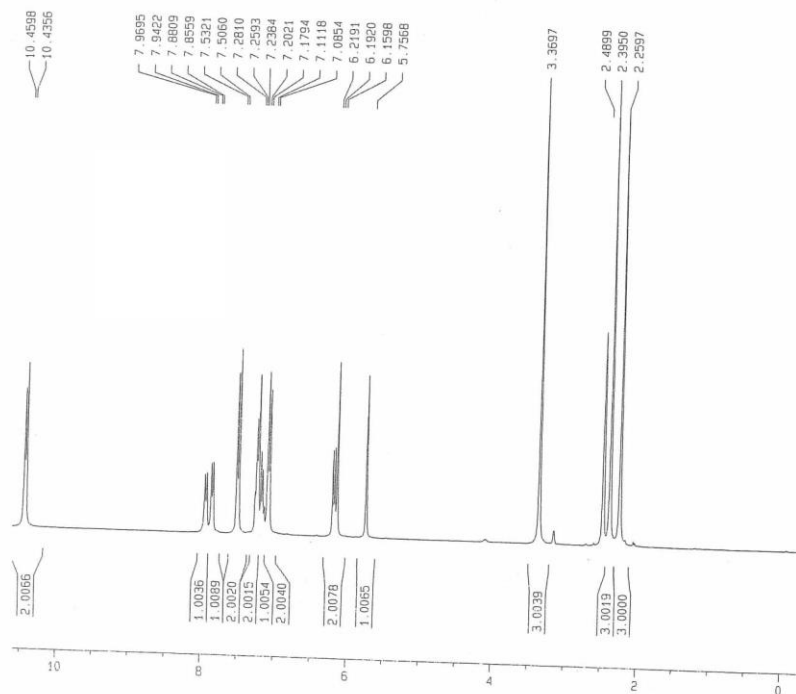
Anal. Calcd for C₂₃H₁₈ClNO₅S: C, 60.59; H, 3.98; N, 3.07. Found: C, 60.50; H, 3.91; N, 3.15.







M1 Hs. Mohammadi



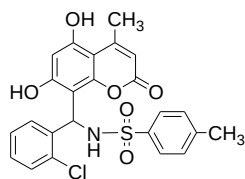
Current Data Parameters
NAME yesouj
EXPNO 51
PROCNO 1

F2 - Acquisition Parameters
Date_ 20140706
Time 15.54
INSTRUM spect
PROBHD 5 mm Multinuc1
PULPROG zg
TD 32768
SOLVENT DMSO
NS 16
DS 2
SWH 5995.204 Hz
FIDRES 0.182959 Hz
AQ 2.7329011 sec
RG 71.8
DW 83.400 usec
DE 6.00 usec
TE 300.0 K
D1 6.00000000 sec

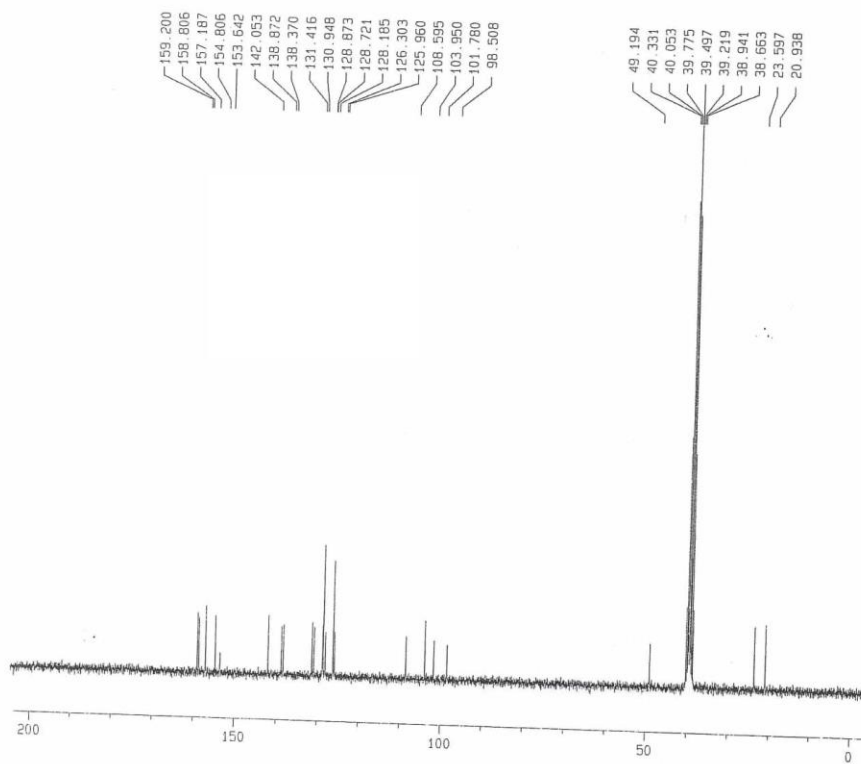
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NUC1 1H
P1 10.00 usec
PL1 0.00 dB
SF01 300.1320599 MHz

F2 - Processing parameters
SI 32768
SF 300.1300052 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 12.50 cm
F1P 11.000 ppm
F1 3301.43 Hz
F2P -0.500 ppm
F2 -90.04 Hz
PPHCH 0.56500 ppm/cm
HZCH 169.57344 Hz/cm



M1 Ms. Mohammadi



Current Data Parameters
NAME yessuj
EXPNO 62
PROCNO 1

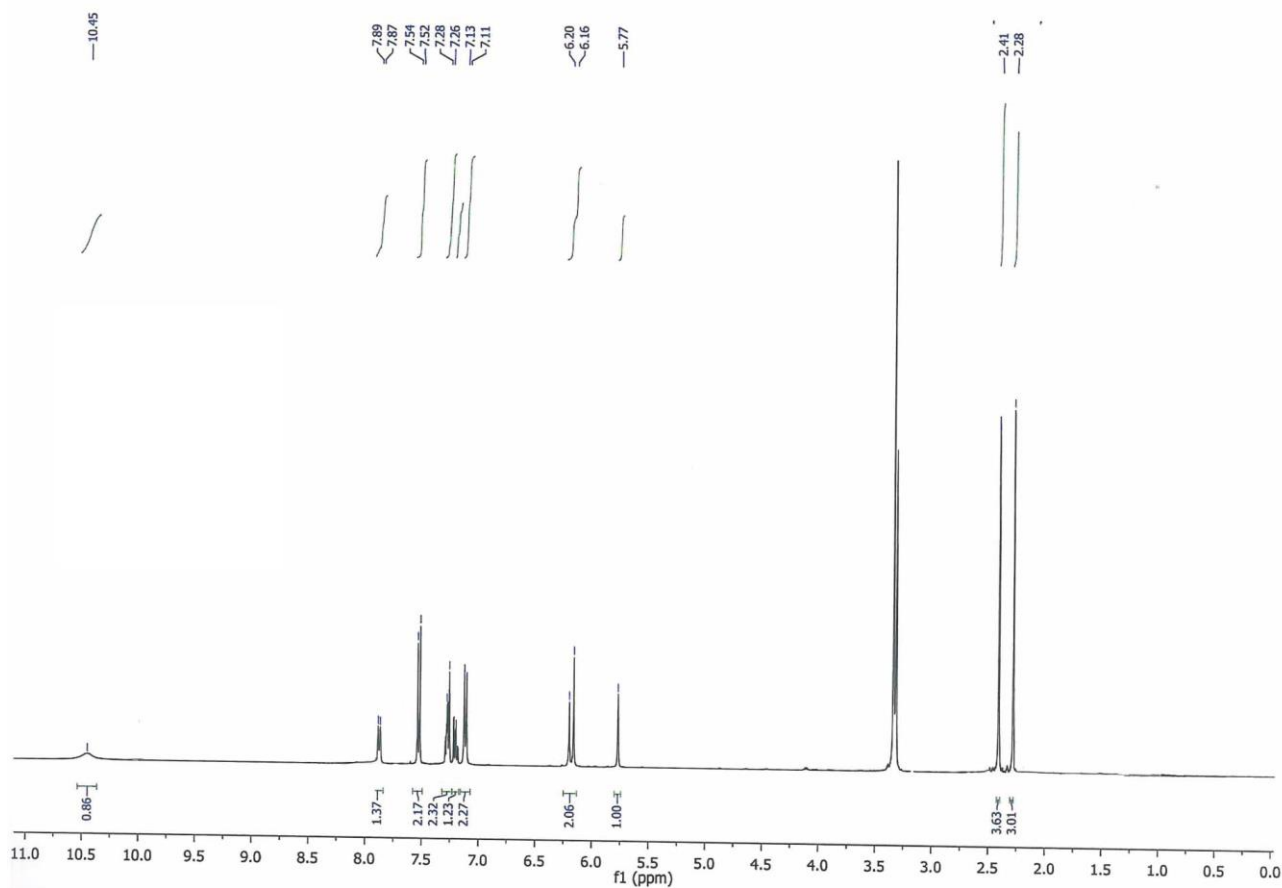
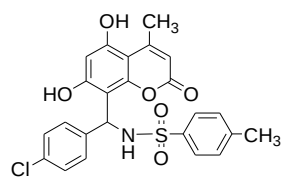
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Date_ 20140706
Time 15.59
INSTRUM spect
PROBHD 5 mm Multinuc1
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TO 32768
SOLVENT DMSO
NS 256
DS 0
SWH 17985.511 Hz
FIDRES 0.546877 Hz
AQ 0.9110004 sec
RG 8192
DH 27.800 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
d11 0.03000000 sec
d12 0.0002000 sec

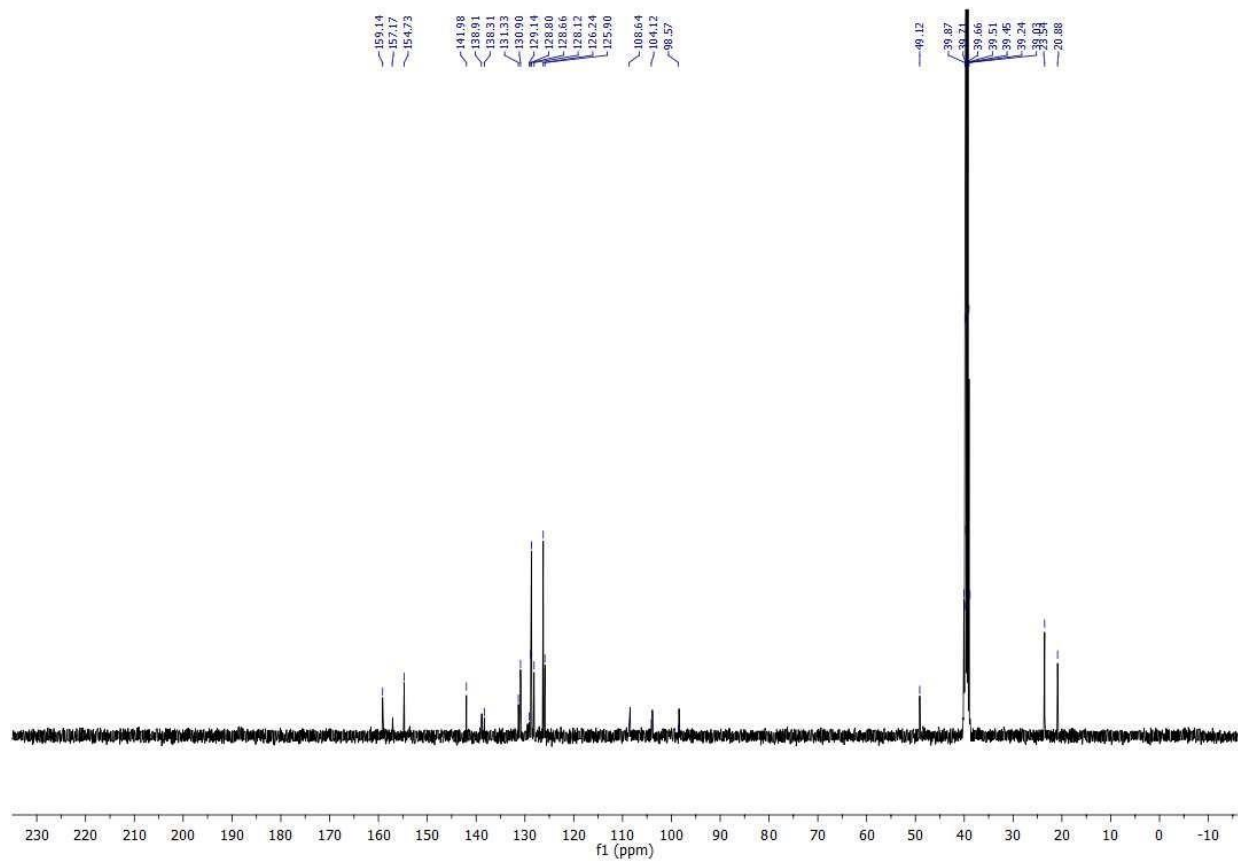
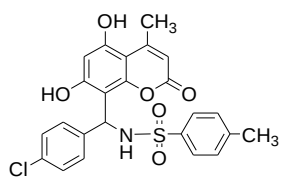
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P1 7.00 usec
PL1 -4.00 dB
SFO1 75.4752953 MHz

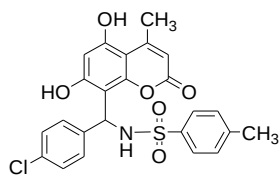
***** CHANNEL f2 *****
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 0.00 dB
PL12 21.00 dB
PL13 21.00 dB
SFO2 300.1312005 MHz

F2 - Processing parameters
SI 65536
SF 75.4677825 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
CX 20.00 cm
CY 12.50 cm
FIP 215.000 ppm
F1 16225.57 Hz
F2P -5.000 ppm
F2 -377.34 Hz
PPMCM 11.00000 ppm/cm
HZCM 830.14557 Hz/cm







File : C:\MSDCHEM\4\DATA\Snapshot\64014986.D
 Operator :
 Acquired : 7 Jun 2014 13:03 using AcqMethod AZMUNSS
 Instrument : Instrumen
 Sample Name: Mohammadi
 Misc Info :
 Vial Number: 1

