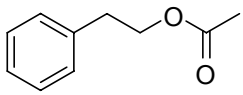
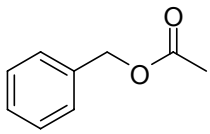
General. ^{1}H NMR and ^{13}C NMR spectra were recorded on 400 MHz ^{1}H (100 MHz ^{13}C) and 200 MHz ^{1}H (50 MHz ^{13}C) spectrometers in deuterochloroform with chloroform as an internal reference unless otherwise stated. Chemical shifts are reported in ppm (δ). Coupling constants, *J*, are reported in Hz. Analytical TLC was performed on silica gel plates. Visualization was accomplished with UV light or with phosphomolybdic acid (PMA) and $KMnO_4$ staining agents. Column (flash) chromatography was performed using 32-63 μm silica gel. Solvents for extraction and chromatography were reagent grade. CH_2Cl_2 were dried over CaH_2 under nitrogen atmosphere and distilled before use. All reaction products were isolated as chromatographically pure materials. 2-phenylethanol, benzyl alcohol, *trans*-cinnamyl alcohol and 30 wt% hydrogen peroxide were all purchased from ACROS. Salicylic acid was purchased from Merck. The procedure for synthesis of TiO_2 nanoparticles is in accordance to the literature method.[1]

Analytical data for 2-phenethyl acetate[2]



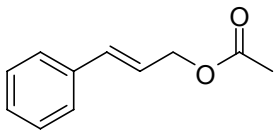
^{1}H NMR (400 MHz, $CDCl_3$) δ 7.34-7.22 (m, 5H), 4.30 (t, *J* = 7.08, 2H), 2.95 (t, *J* = 7.08, 2H), 2.05 (s, 3H); ^{13}C NMR (100 MHz, $CDCl_3$) δ 170.96, 137.80, 128.85, 128.47, 126.53, 64.89, 35.07, 20.93; TLC R_f 0.37 (EtOAc/hexanes, 1/20).

Analytical data for benzyl acetate[3]



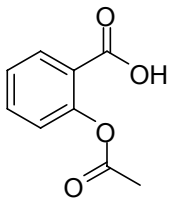
^{1}H NMR (400 MHz, $CDCl_3$) δ 7.38-7.34 (m, 5H), 5.13 (s, 2H), 2.11 (s, 3H); ^{13}C NMR (100 MHz, $CDCl_3$) δ 170.68, 135.84, 128.42, 128.11, 128.09, 66.14, 20.82; TLC R_f 0.33 (EtOAc/hexanes, 1/15).

Analytical data for *trans*-cinnamyl acetate[2]



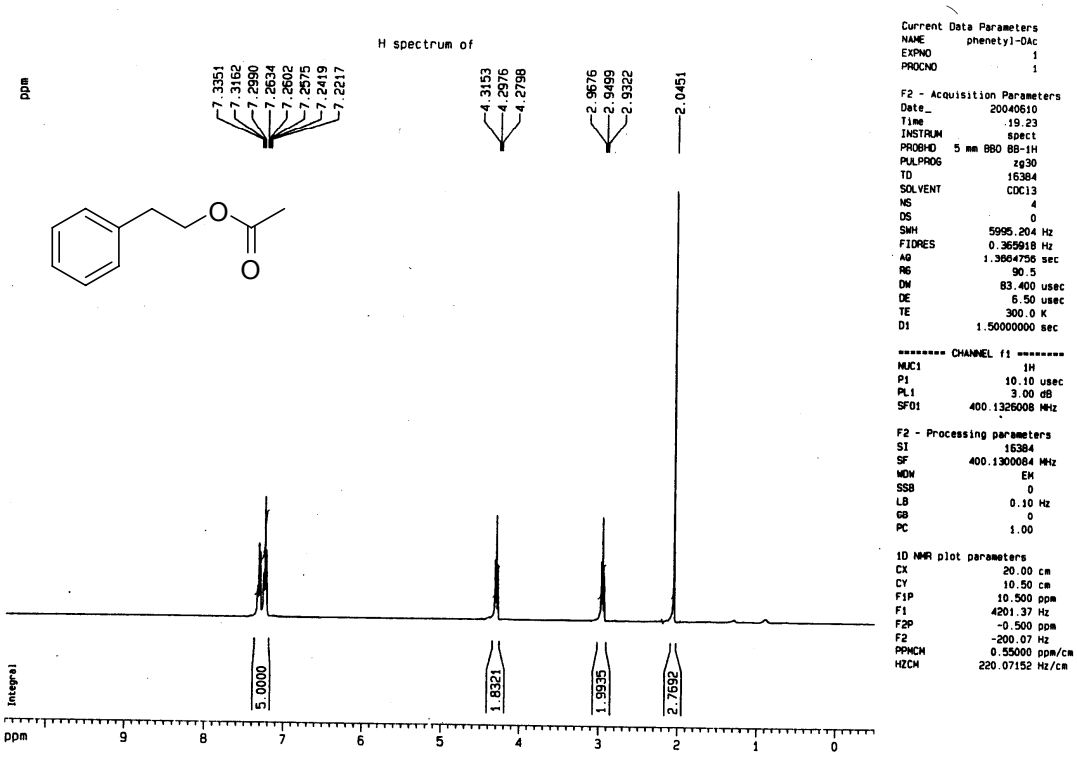
^{1}H NMR (200 MHz, $CDCl_3$) δ 7.42-7.26 (m, 5H), 6.57 (d, *J* = 15.80, 1H), 6.28 (dt, *J* = 15.80, 6.40, 1H), 4.73 (dd, *J* = 6.40, 1.20, 2H), 2.10 (s, 3H); ^{13}C NMR (50 MHz, $CDCl_3$) δ 170.75, 136.20, 134.14, 128.56, 128.01, 126.55, 123.17, 64.91, 20.77; TLC R_f 0.29 (EtOAc/hexanes, 1/20).

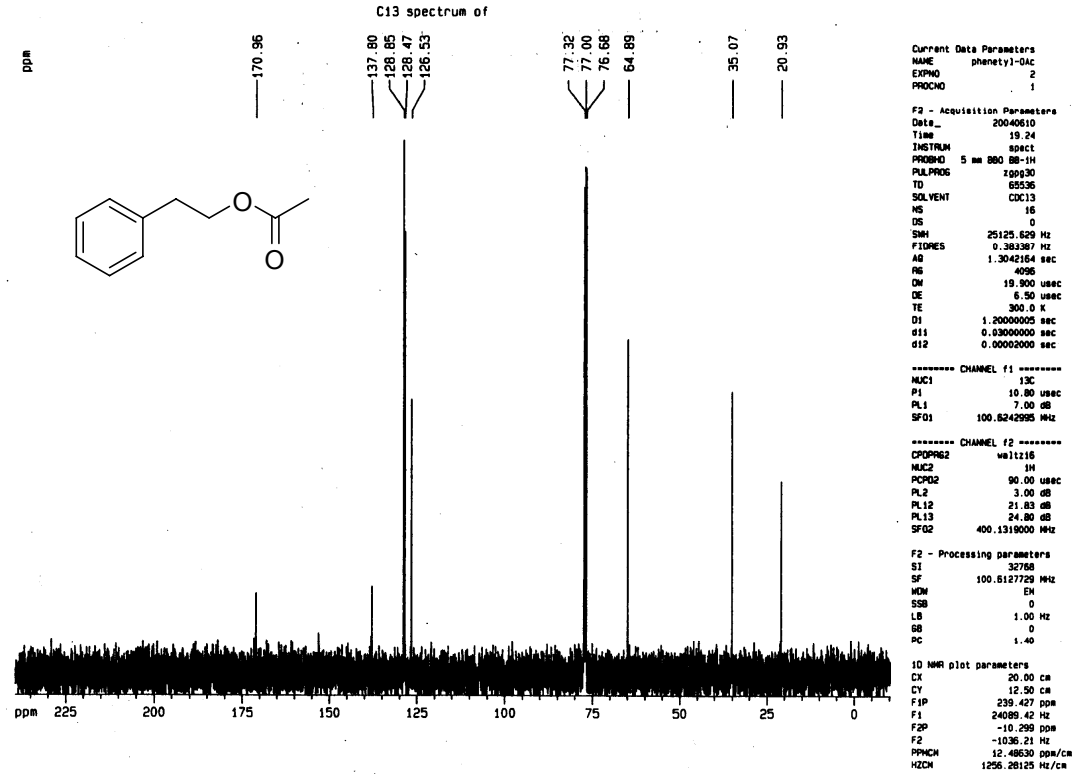
Analytical data for 2-acetoxybenzoic acid[4]



^{1}H NMR (400 MHz, $CDCl_3$) δ 10.91 (bs, 1H), 8.12 (dd, *J* = 7.80, 1.50, 1H), 7.61 (td, *J* = 7.80, 1.50, 1H), 7.34 (td, *J* = 7.80, 1.50, 1H), 7.13 (dd, *J* = 7.80, 1.50, 1H), 2.37 (s, 3H); ^{13}C NMR (100 MHz, $CDCl_3$) δ 170.07, 169.78, 151.19, 134.82, 132.45, 126.18, 123.95, 122.23, 20.94;

TLC R_f 0.33 (EtOAc/hexanes, 1/1).

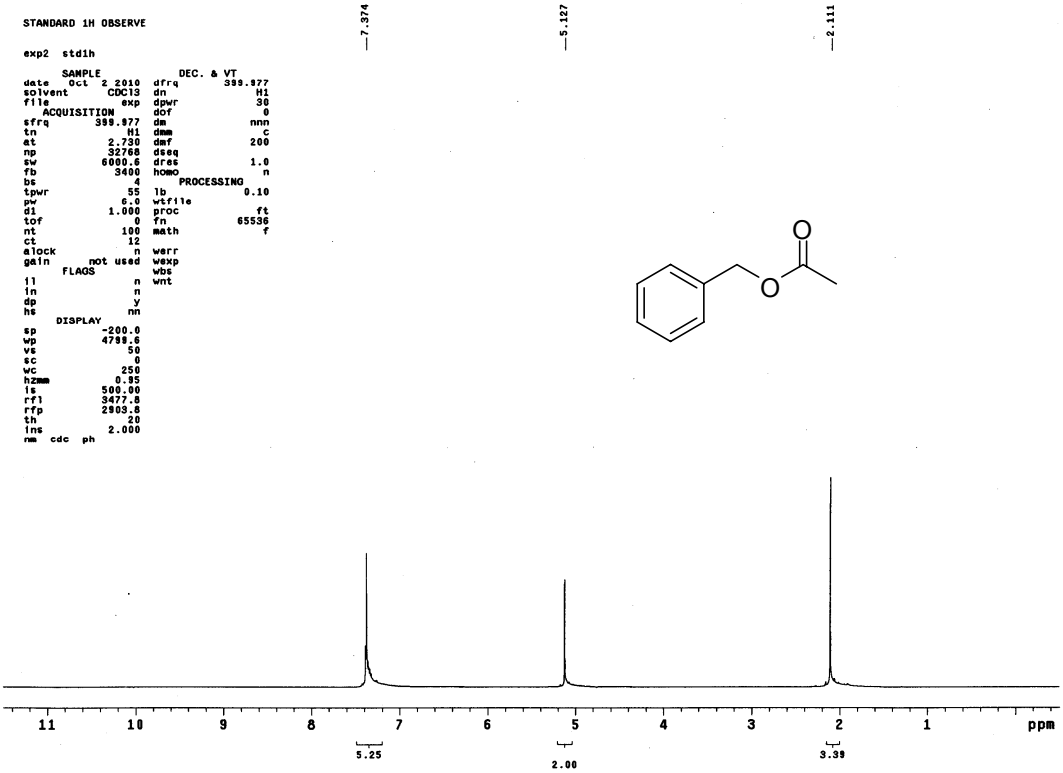




STANDARD 1H OBSERVE

exp2 std1h

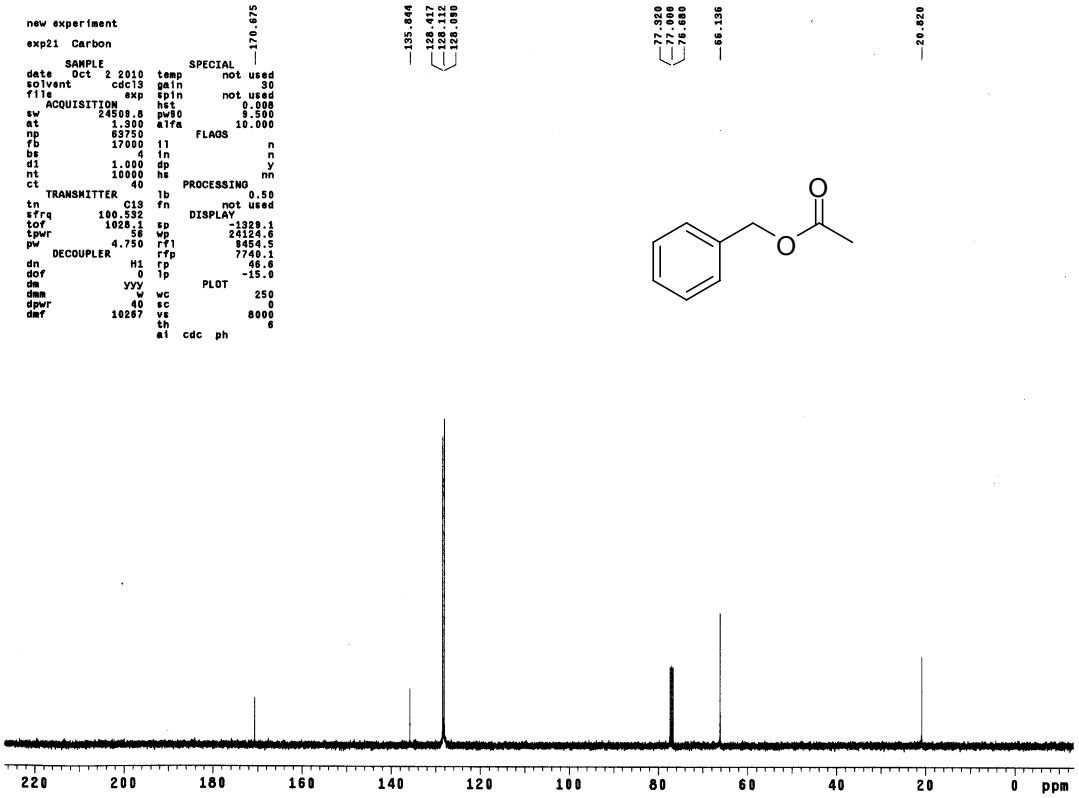
SAMPLE		DEC. & VT	
date	Oct 2 2010	dfrq	399.877
solvent	CDCl3	dn	H1
file	exp	dpwr	30
ACQUISITION		dof	0
sfrq	399.877	dm	nnn
tn	H1	dmm	c
at	2.730	dmf	200
np	32768	dseq	
sw	6000.6	dres	1.0
fb	3400	homo	n
bs	4	PROCESSING	
tpwr	55	lb	0.10
pw	6.0	wtfile	
d1	1.000	proc	ft
tof	0	fn	65536
nt	100	math	f
ct	12		
alock	n	werr	
gain	not used	wexp	
FLAGS		wbs	
ii	n	wnt	
in	n		
dp	y		
hs	nn		
DISPLAY			
sp	-200.0		
wp	4799.6		
vs	50		
sc	0		
wc	250		
hzmm	0.95		
is	500.00		
rfl	3477.8		
rfp	2803.8		
th	20		
ins	2.000		
nm cdc ph			



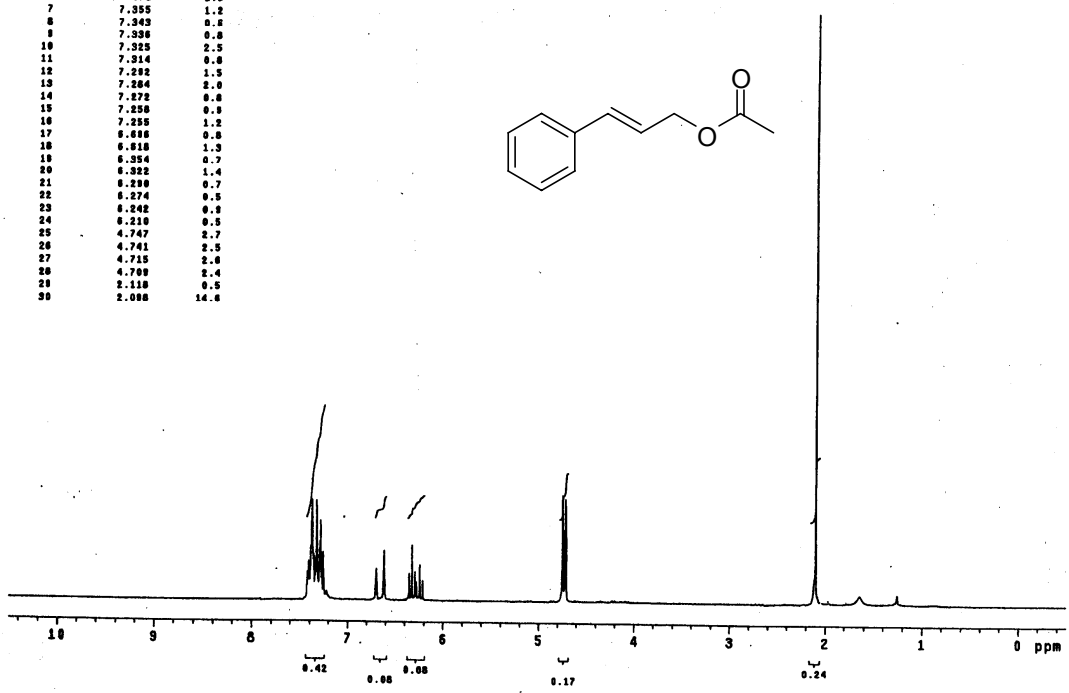
new experiment

exp21 Carbon

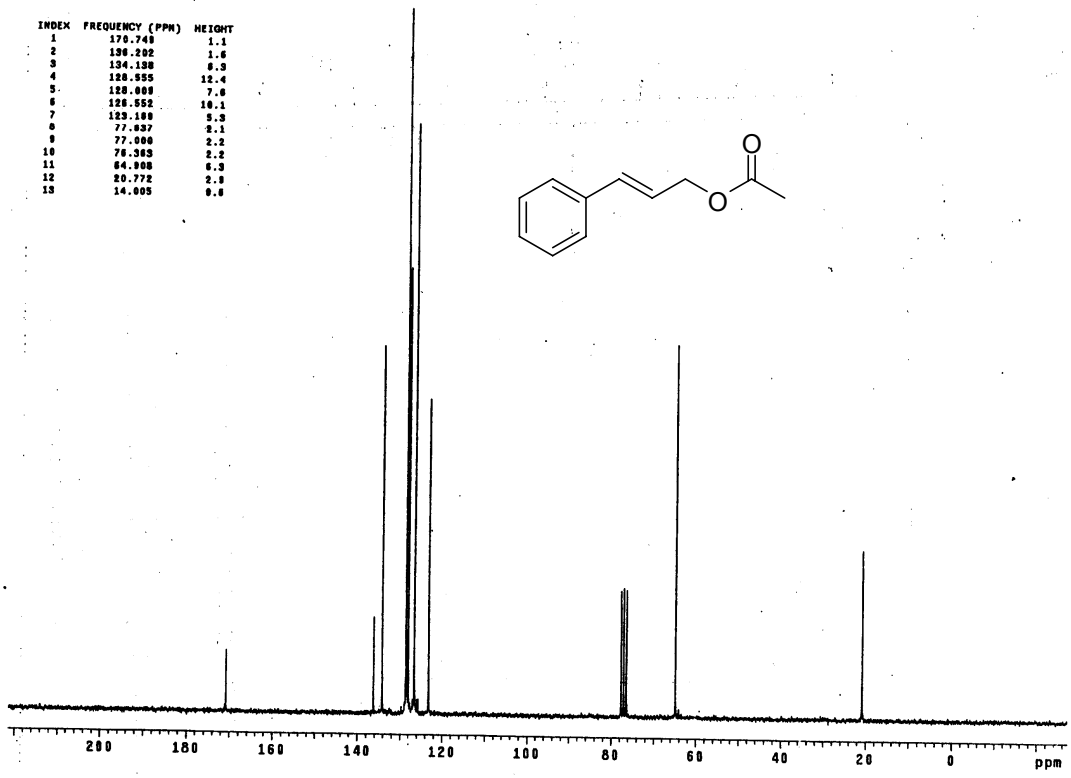
SAMPLE		SPECIAL	
date	Oct 2 2010	temp	not used
solvent	cdcl3	gain	30
file	exp	spin	not used
ACQUISITION		hst	0.008
sw	24508.8	pw90	9.500
at	1.300	alfa	10.000
np	63750	FLAGS	
fb	17000	ii	n
bs	4	in	n
d1	1.000	dp	y
nt	10000	hs	nn
ct	40	PROCESSING	
TRANSMITTER		lb	0.50
tn	C13	fn	not used
sfrq	100.532	DISPLAY	
tof	1028.1	sp	-1329.1
tpwr	56	wp	24124.6
pw	4.750	rfl	8454.5
DECOUPLER		rfp	7740.1
dn	H1	rp	46.6
dof	0	lp	-15.0
dm	yyy	PLOT	
dmm	w	wc	250
dpwr	40	sc	0
dmf	10267	vs	8000
		th	6
		al cdc ph	

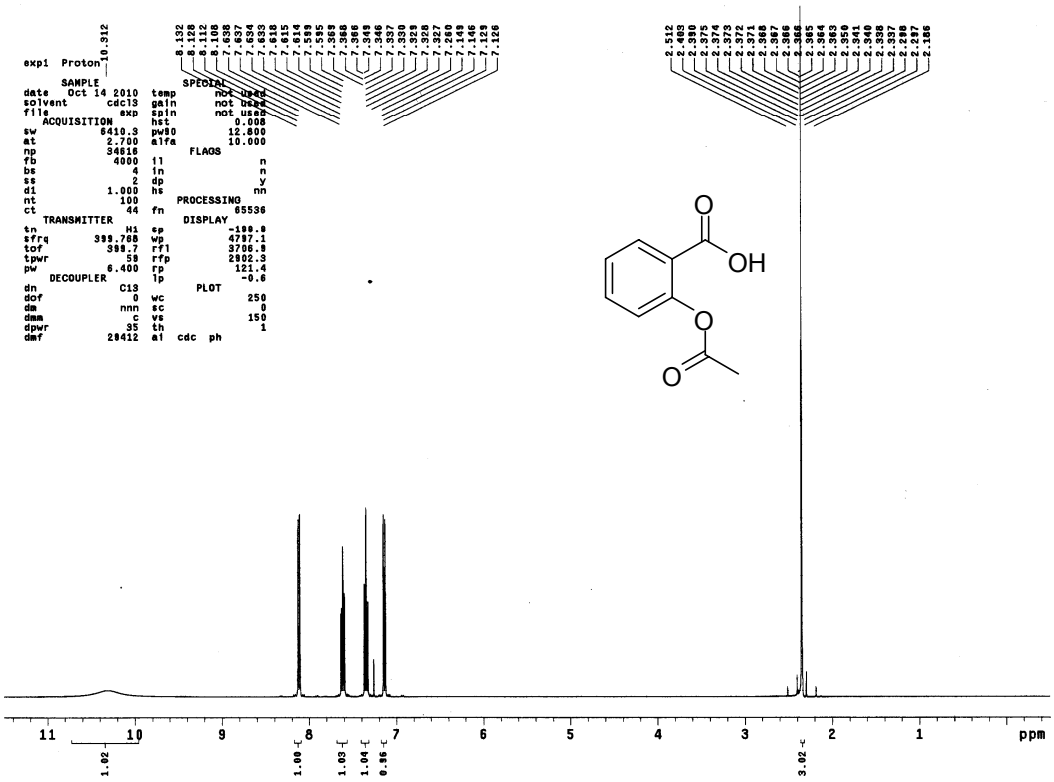


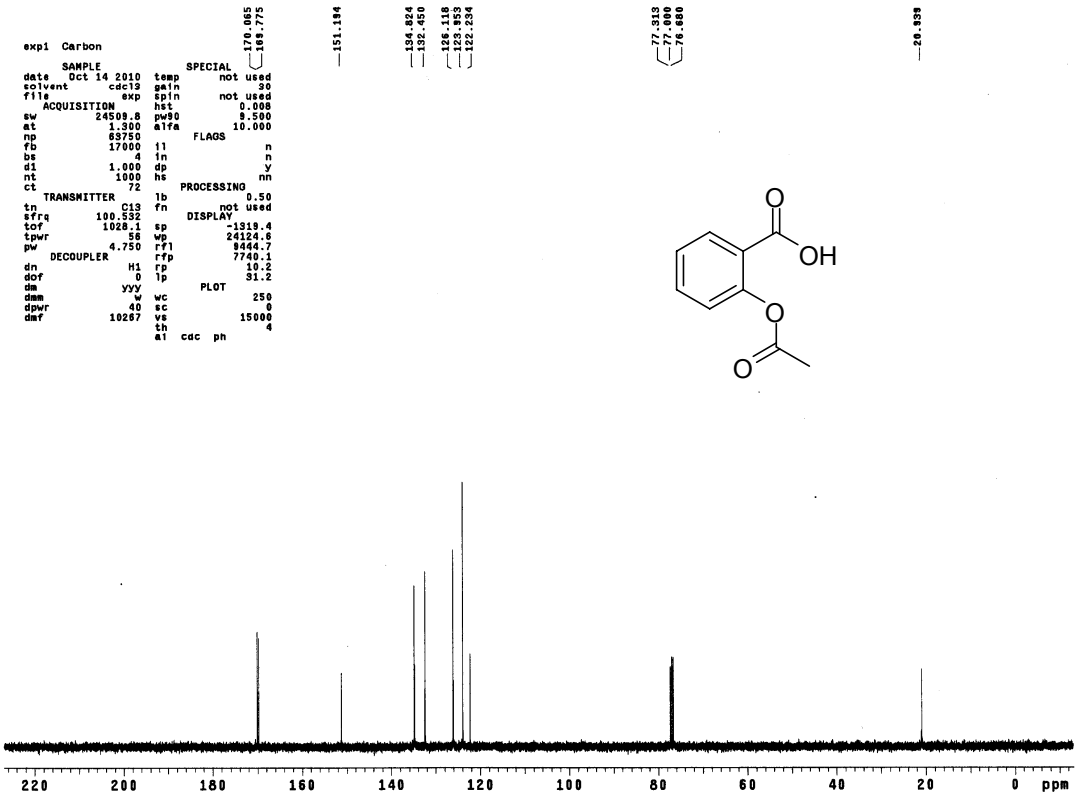
INDEX	FREQUENCY (PPM)	HEIGHT
1	7.421	0.7
2	7.411	1.0
3	7.400	0.6
4	7.387	1.4
5	7.378	2.1
6	7.371	2.5
7	7.355	1.2
8	7.343	0.8
9	7.336	0.8
10	7.325	2.5
11	7.314	0.8
12	7.282	1.5
13	7.264	2.0
14	7.272	0.8
15	7.258	0.9
16	7.255	1.2
17	6.686	0.8
18	6.618	1.3
19	6.354	0.7
20	6.322	1.4
21	6.290	0.7
22	6.274	0.5
23	6.242	0.8
24	6.210	0.5
25	4.747	2.7
26	4.741	2.5
27	4.715	2.0
28	4.709	2.4
29	2.118	0.5
30	2.098	14.6



INDEX	FREQUENCY (PPM)	HEIGHT
1	170.749	1.1
2	136.292	1.6
3	134.138	6.3
4	128.555	12.4
5	128.009	7.8
6	126.552	10.1
7	123.189	5.3
8	77.637	2.1
9	77.000	2.2
10	76.363	2.2
11	64.908	6.3
12	20.772	2.8
13	14.005	0.8




exp1 Proton
SAMPLE
date Oct 14 2010
solvent cdcl3
file exp
ACQUISITION
sw 6410.3
at 2.700
np 34616
fb 4000
bs 4
ss 2
d1 1.000
nt 100
ct 44
TRANSMITTER
tn H1
sfrq 399.768
tof 398.7
tpwr 58
pw 6.400
DECOUPLER
dn C13
dof 0
dm nnn
dmm c
dpwr 35
dmf 28412
SPECIAL
temp not used
gain not used
spin not used
hst 0.008
pw90 12.800
alfa 10.000
FLAGS
ii n
in n
dp y
hs nn
PROCESSING
fn 65536
DISPLAY
sp -199.8
wp 4797.1
rf1 3706.8
rfp 2902.3
rp 121.4
lp -0.6
PLOT
wc 250
sc 0
vs 150
th 1
al cdc ph
OH
O
ppm


exp1 Carbon
SAMPLE
date Oct 14 2010
solvent cdcl3
file exp
ACQUISITION
sw 24509.8
at 1.300
np 63750
fb 17000
bs 4
d1 1.000
nt 1000
ct 72
TRANSMITTER
tn C13
sfrq 100.532
tof 1028.1
tpwr 58
pw 4.750
DECOUPLER
dn H1
dof 0
dm yyy
dmm w
dpwr 40
dmf 10267
SPECIAL
temp not used
gain 30
spin not used
hst 0.008
pw90 9.500
alfa 10.000
FLAGS
ii n
in n
dp y
hs nn
PROCESSING
lb 0.50
fn not used
DISPLAY
sp -1319.4
wp 24124.6
rf1 9444.7
rfp 7740.1
rp 10.2
lp 31.2
PLOT
wc 250
sc 0
vs 15000
th 4
al cdc ph
170.065
169.775
151.194
134.824
132.450
126.118
123.553
122.234
77.313
77.000
76.680
20.838
OH
O
ppm

References:

1. C. J. Barbé, F. Arendse, P. Comte, M. Jirousek, F. Lenzmann, V. Shklover and M. Grätzel, *J. Am. Ceram. Soc.* **1997**, *80*, 3157.
2. C.-T. Chen, J.-H. Kuo, V. D. Pawar, Y. S. Munot, S.-S. Weng, C.-H. Ku and C.-Y. Liu, *J. Org. Chem.* **2005**, *70*, 1188.
3. B. Janza and A. Studer, *J. Org. Chem.* **2005**, *70*, 6991.
4. X.-A. Wu, P. Ying, J.-Y. Liu, H.-S. Shen, Y. Chen and L. He, *Synth. Commun.* **2009**, *39*, 3459.