

BAB V

KESIMPULAN DAN SARAN

A. Kesimpulan

Berdasarkan hasil penelitian dapat disimpulkan bahwa : Senyawa 3-(4-klorofenil)-1-(4-piridinil)prop-2-en-1-on dapat disintesis melalui reaksi kondensasi Claisen – Schmidt dengan senyawa pemula *p*-klorobenzaldehida dan *p*-asetilpiridin dengan katalis NaOH pada suhu kamar sesuai dengan yang telah diprediksikan. Uji kemurnian menunjukkan senyawa tidak murni dan elusidasi struktur menunjukkan hasil yaitu dngan yield 89,05% dan recovery 33,95%.

B. Saran

Penelitian ini perlu untuk dilakukan pemurnian dan pengembangan metoda yang lebih lanjut terhadap senyawa hasil sintesis dan juga perlu untuk di uji aktivitas biologinya.

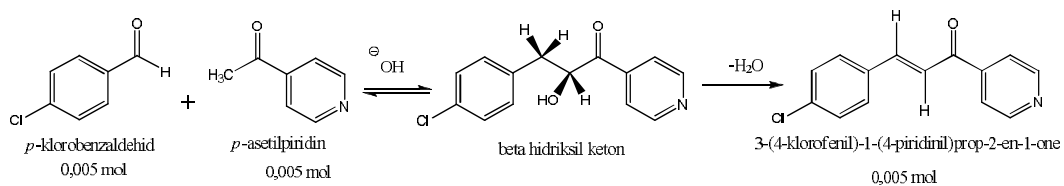
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LAMPIRAN

Lampiran 1. Perhitungan Yields dan Recovery



$$\begin{aligned}
 1. \text{ Berat Teoritis (} C_{14}H_{10}ClNO \text{)} &= \text{ mol } \times \text{ BM} \\
 &= 0,005 \times 243 \\
 &= 1,215 \text{ gram}
 \end{aligned}$$

$$\text{Yield} = \frac{\text{BeratSerbukSampel}}{\text{BeratTeoritisSampel}} \times 100\%$$

$$= \frac{1,082}{1,215} \times 100\%$$

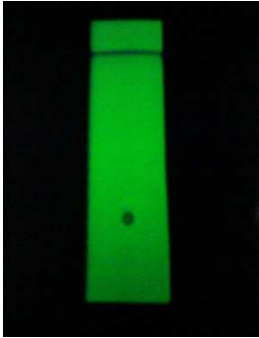
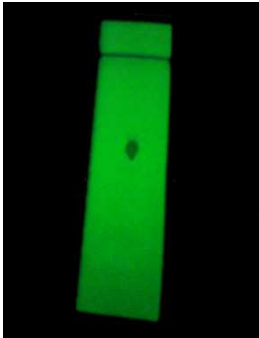
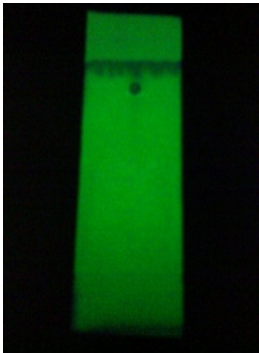
$$= 89,05 \%$$

$$2. \text{ Recovery} = \frac{\text{Berat kristal}}{\text{berat serbuk}} \times 100\%$$

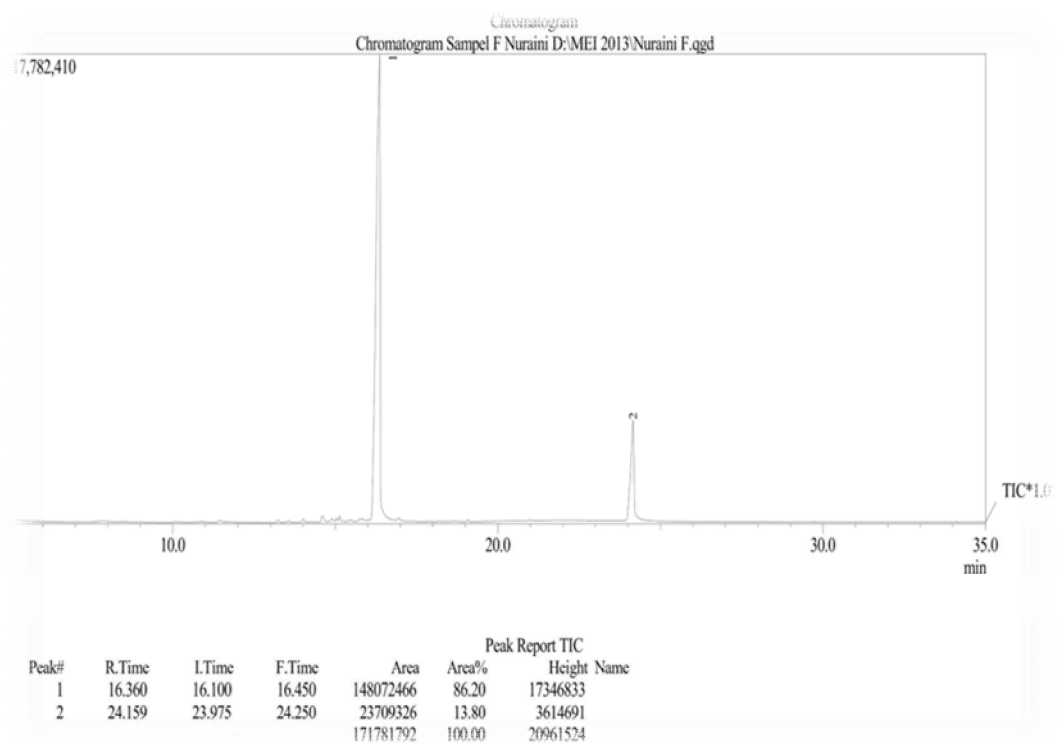
$$= \frac{0,093 \text{ gram}}{0,274 \text{ gram}} \times 100\%$$

$$= 33,94 \%$$

Lampiran 2. Profil kromatografi lapis tipis senyawa 3-(4-klorofenil)-1-(4-pirdinil)prop-2-en-1-on hasil sintesis

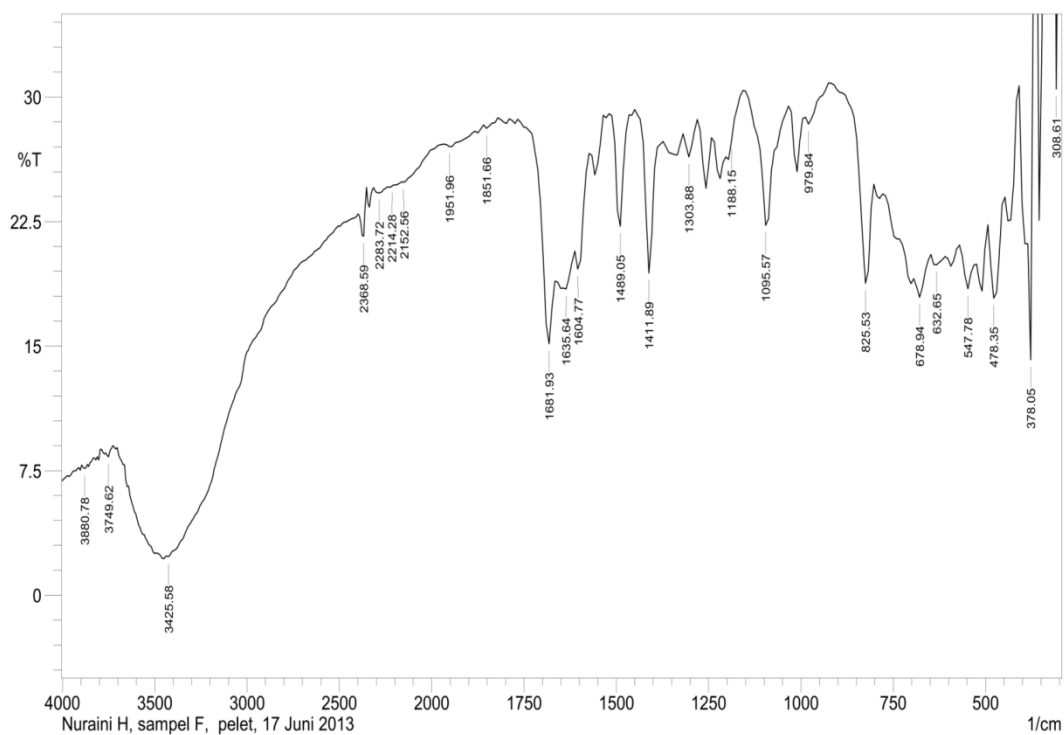
Sistem Fase Gerak	Detektor UV 254 nm
etil asetat: n-hexan : 3 : 1 $= \frac{\text{Jarak Yang Ditempuh Senyawa}}{\text{Jarak Yang Ditempuh Pelarut}}$ $= \frac{1,4}{5,00}$ $= 0,28$	
n-heksan : kloroform : 1 : 3 $= \frac{\text{jarak yang ditempuh senyawa}}{\text{jarak yang ditempuh pelarut}}$ $= \frac{2,8}{5,0}$ $= 0,56$	
Butanol : asam asetat : air : 3 : 1 : 1 $= \frac{\text{jarak yang ditempuh senyawa}}{\text{jarak yang ditempuh pelarut}}$ $= \frac{4,8}{5,0}$ $= 0.96$	

Lampiran 3. Spektra GC Senyawa 3-(4-klorofenil)-1-(4-piridinil)prop-2-en-1-on



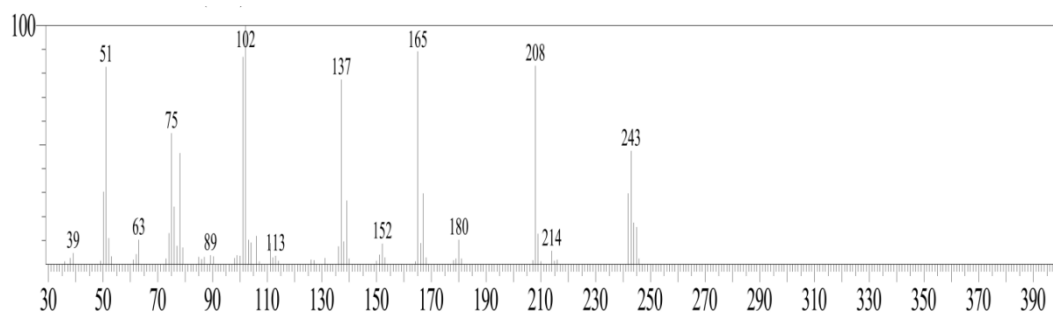
Lampiran 4. Spektra IR senyawa 3-(4-klorofenil)-1-(4-piridinil)prop-2-en-1-

on



	Peak	Intensity	Corr. Intensity	Base (H)	Base (L)	Area	Corr. Area
1	308.61	30.48	79.94	331.76	293.18	9.51	10.39
2	378.05	14.18	24.15	408.91	370.33	24.85	7.78
3	478.35	17.88	4.9	493.78	455.2	27.06	2.45
4	547.78	18.46	1.89	570.93	532.35	27.43	0.74
5	632.65	19.89	0.57	648.08	609.51	26.89	0.29
6	678.94	17.94	1.54	694.37	655.8	27.89	0.66
7	825.53	18.77	7.19	918.12	802.39	67.11	3.11
8	979.84	28.37	0.67	987.55	925.83	32.6	0.25
9	1095.57	22.27	7.66	1149.57	1033.85	65.88	5.14
10	1188.15	26.24	0.83	1195.87	1157.29	20.66	0
11	1303.88	26.4	1.72	1319.31	1280.73	21.69	0.53
12	1411.89	19.4	8.64	1442.75	1381.03	37.39	3.18
13	1489.05	22.22	6.79	1512.19	1450.47	35.57	2.47
14	1604.77	19.65	2.25	1612.49	1573.91	24.75	0.91
15	1635.64	18.44	1.12	1658.78	1620.21	27.91	0.56
16	1681.93	15.13	5.36	1759.08	1666.5	60.18	2.51
17	1851.66	28.11	0.28	1859.38	1820.8	21.09	0.1
18	1951.96	27.02	0.19	1959.68	1890.24	39.07	0.15
19	2152.56	24.87	0.11	2160.27	1967.39	112.92	0.3
20	2214.28	24.58	0.04	2222	2160.27	37.42	0.01
21	2283.72	24.23	0.32	2314.58	2237.43	47.31	0.26
22	2368.59	21.62	2.27	2391.73	2353.16	24.85	0.85
23	3425.58	2.31	0.19	3433.29	2399.45	946.76	0.14
24	3749.62	8.34	0.4	3765.05	3726.47	40.98	0.31
25	3880.78	7.62	0.15	3888.49	3834.49	59.59	0.37

Lampiran 5. Spektra Massa (MS) Senyawa 3-(4-klorofenil)-1-(4-pirdinil)prop-2-en-1-on.



Lampiran 6. Spektra UV Senyawa 3-(4-klorofenil)-1-(4-pirdinil)prop-2-en-1-on.

