Supplementary Material

Antioxidant activity of α-pyridoin and its derivatives: possible mechanism

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1. HPLC purity analysis

Table 1. HPLC analysis date for key compounds.

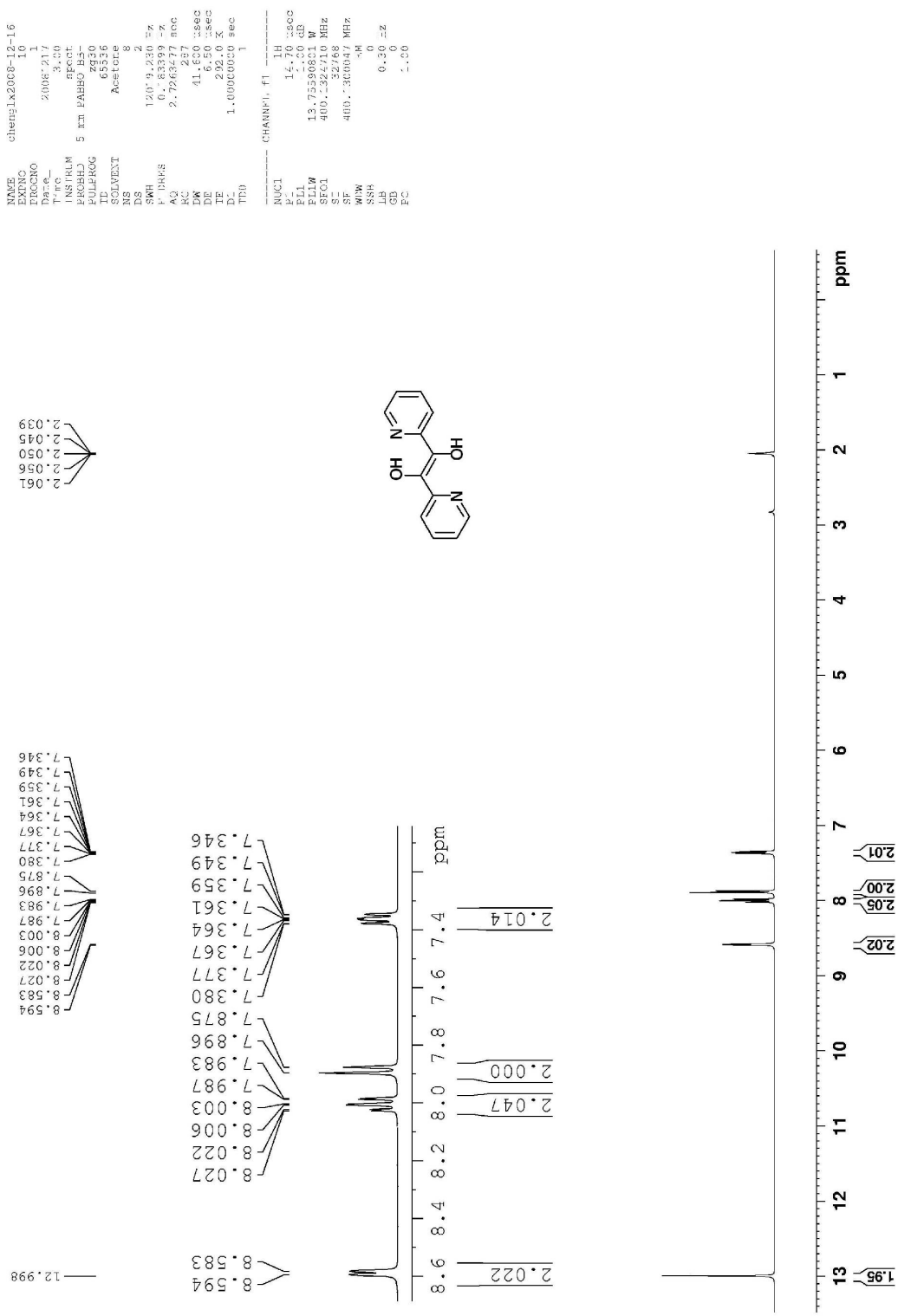
Compounds	Eluent	HPLC analysis* data
1	70 : 30[a]	t_R = 8.031 min (98.02 % purity)
2	70 : 30[a]	t_R = 7.384 min (99.03 % purity)
3	70 : 30[a]	t_R = 6.509 min (98.07 % purity)
4	70 : 30[a]	t_R = 6.529 min (99.17 % purity)
5	70 : 30[a]	t_R = 8.510 min (98.04 % purity)
6	90 : 10[b]	t_R = 5.485 min (95.71 % purity)
7	70: 30[a]	t_R = 6.802 min (96.87 % purity)

* HPLC analysis was performed using a Waters 600 instrument, with Photodiode Array detector, and a Symmetry Shield ™ RP18 (3.9×150mm, 5µm particle size, Waters)[a] or a Nova-Pak® silica 60Å (3.9×150mm, 4µm particle size, Waters)[b]. The flow rate was set at 0.5mL/min[a] or 1mL/min[b].

[a] : eluent: methanol: water.

[b] : eluent: n-hexane: isopropanol.

2. ^{1}H、^{13}C NMR and MS (EI) spectrum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TE 292.0 K
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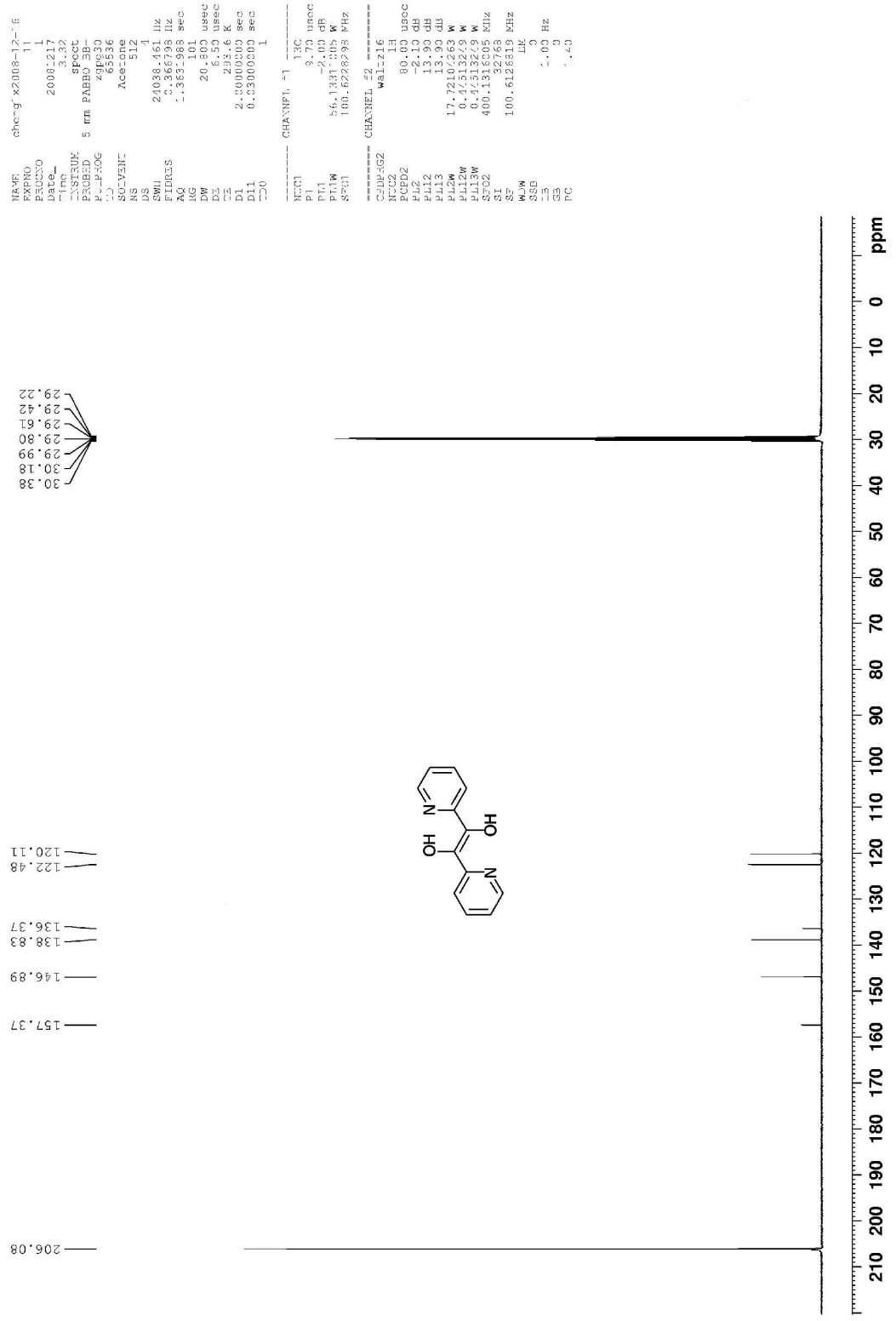
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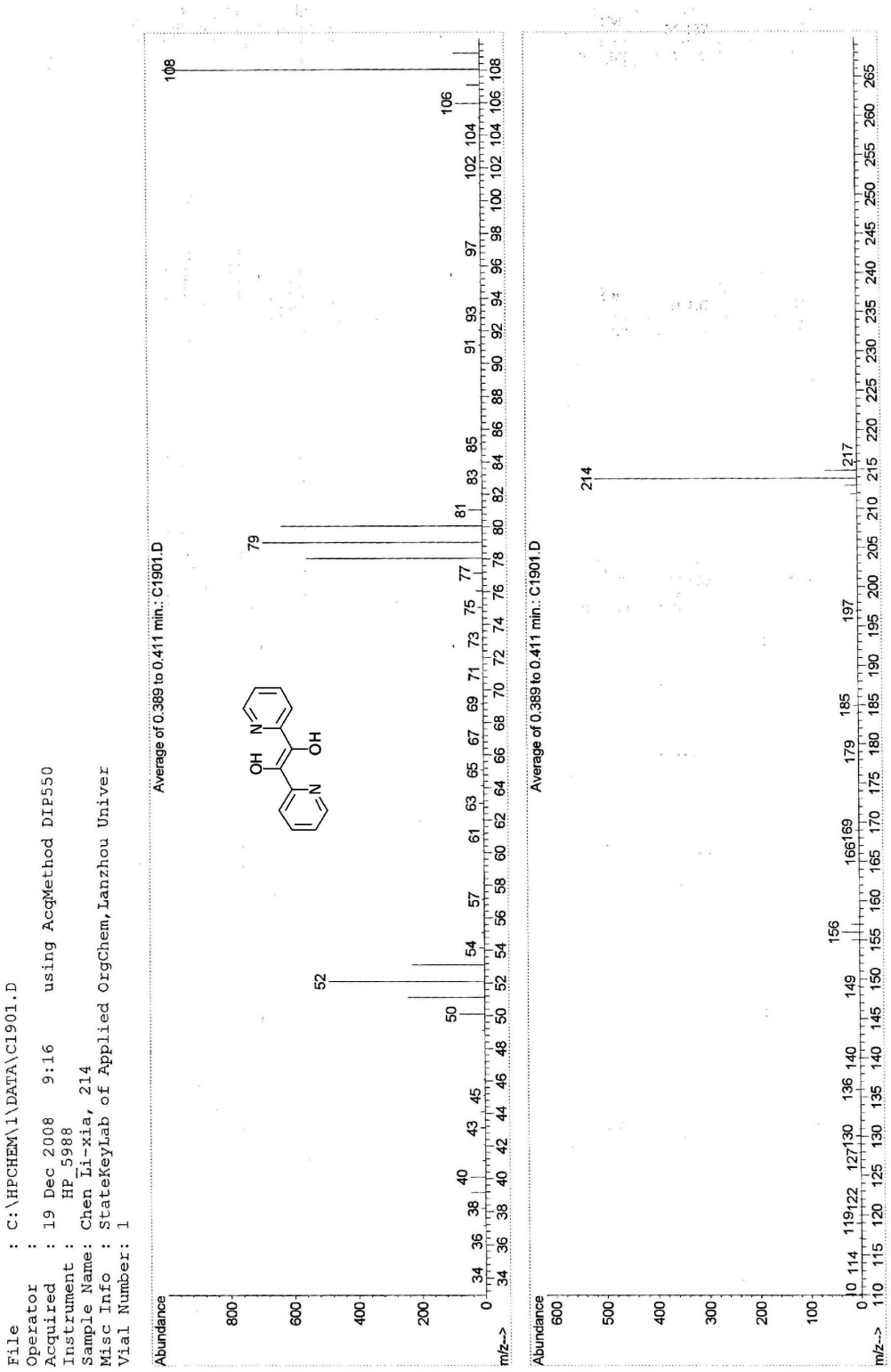
OH
N
N
ppm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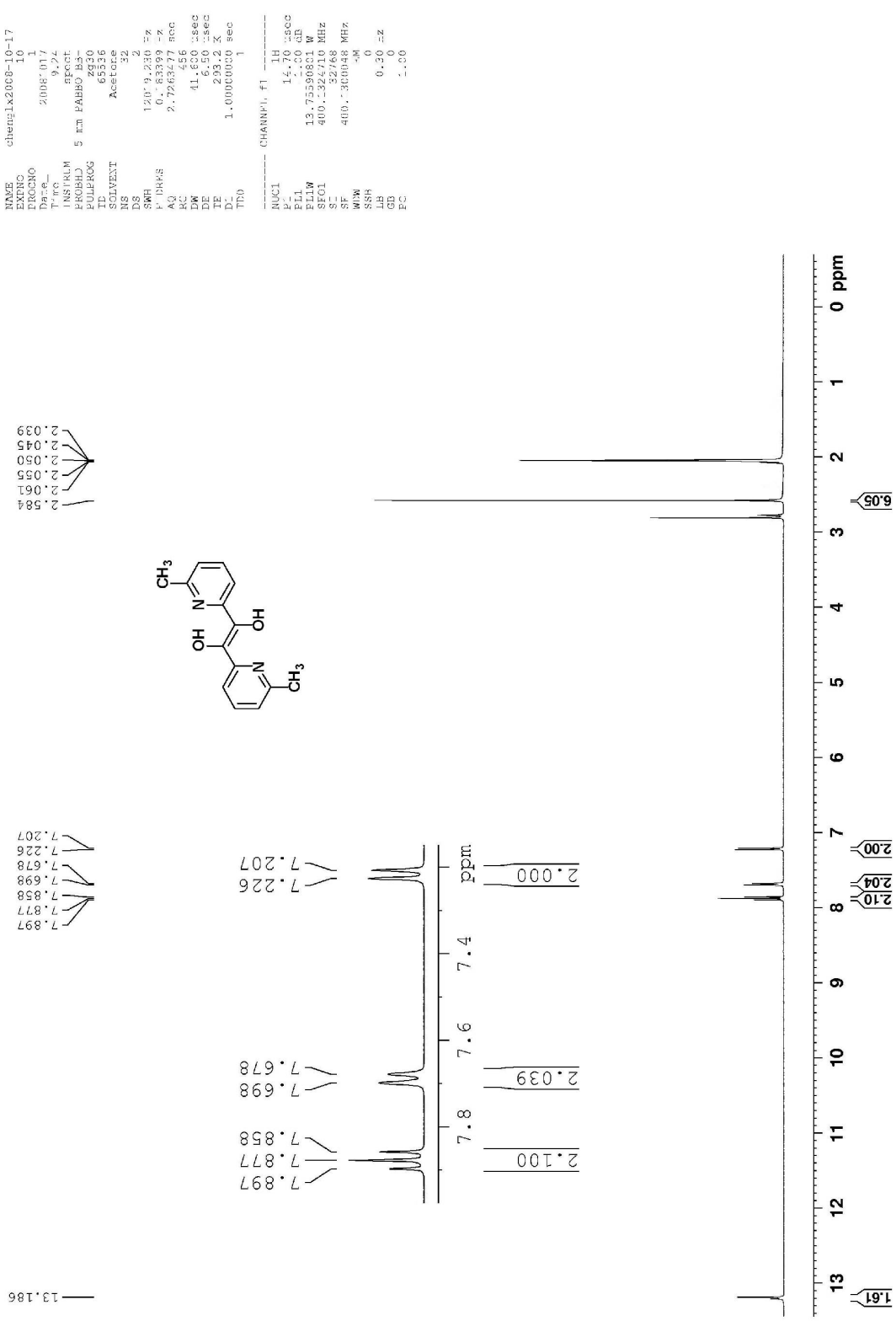
m/z-->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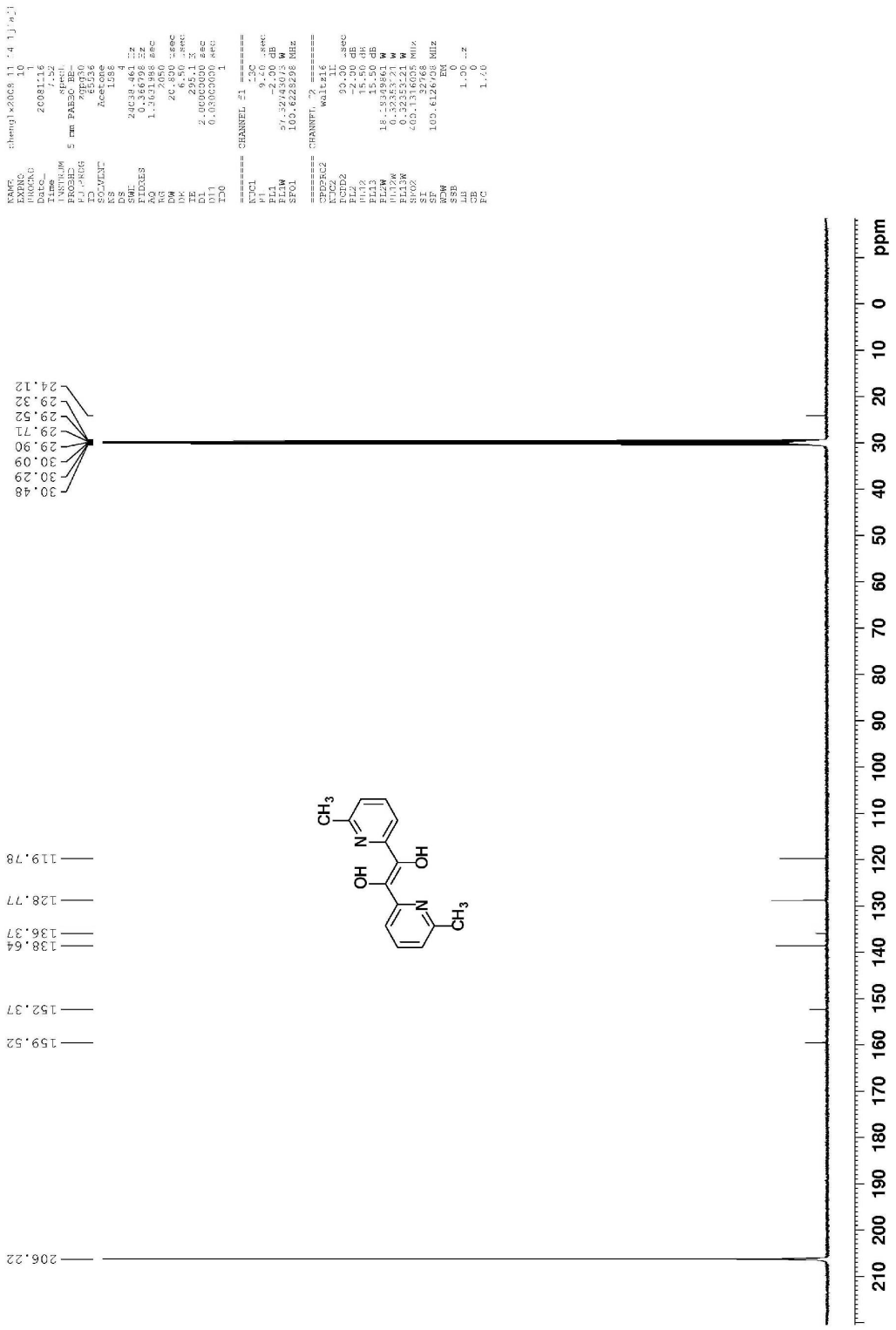
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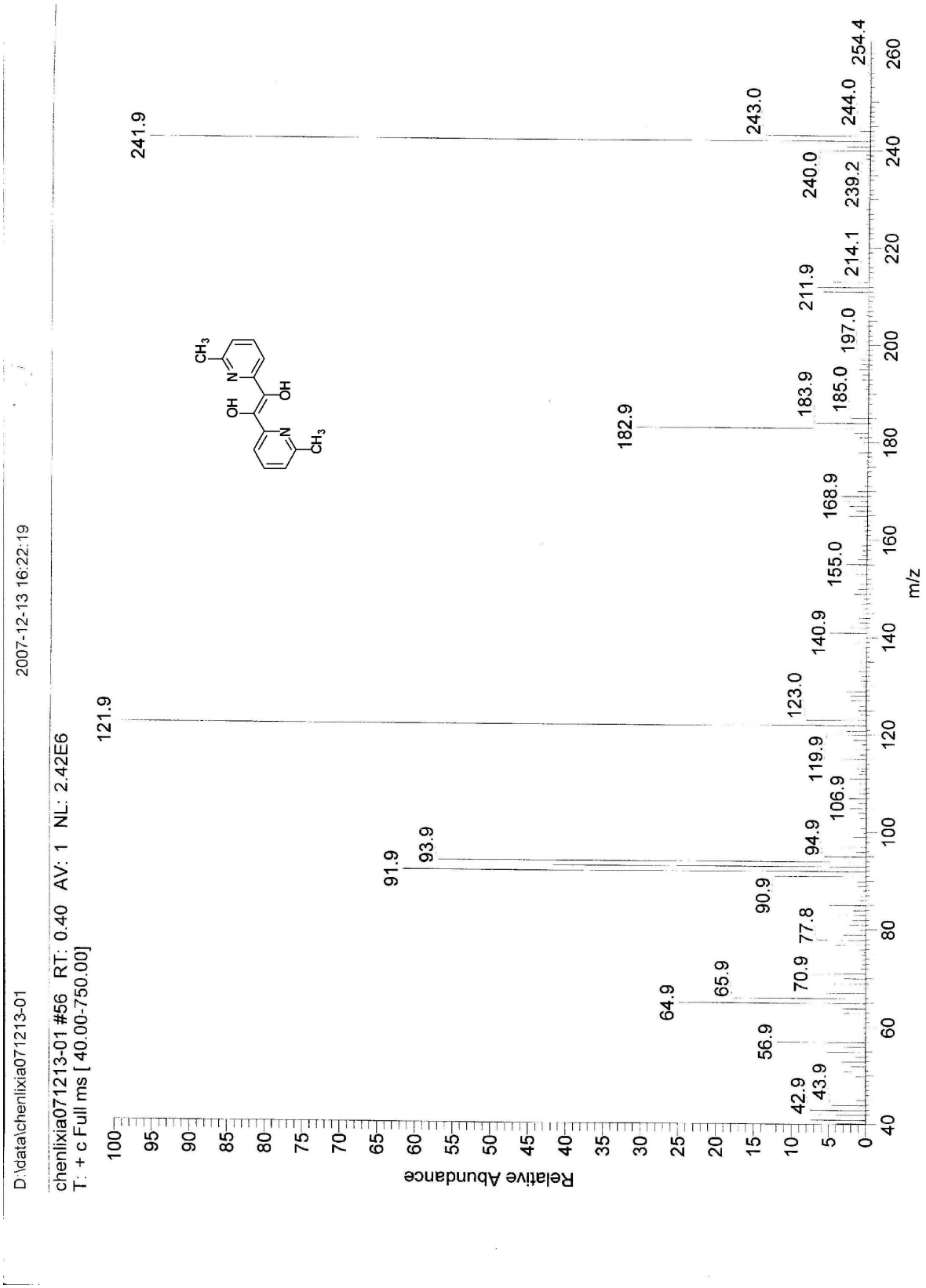
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155.0
168.9
183.9
185.0
197.0
211.9
214.1
239.2
240.0
244.0
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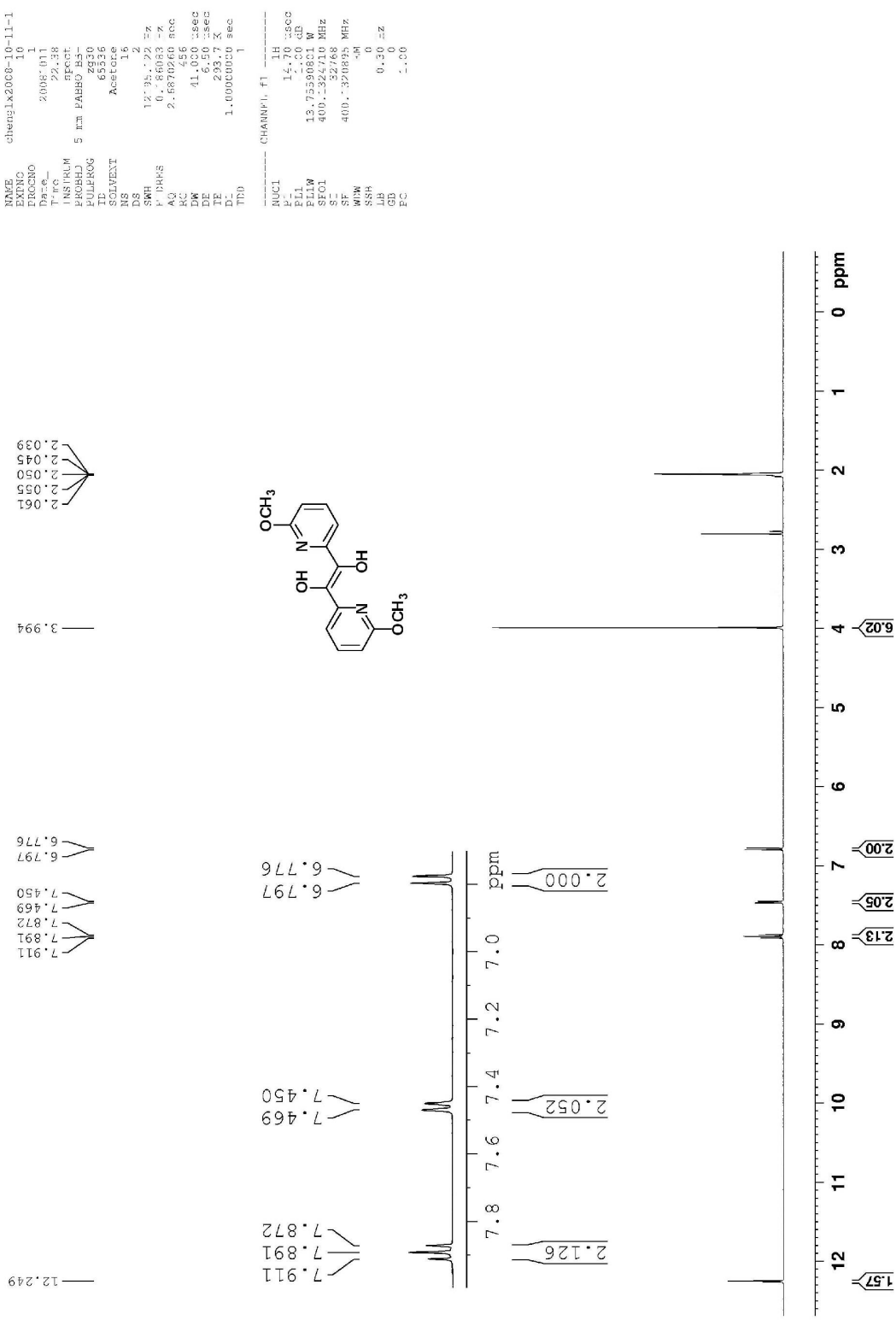
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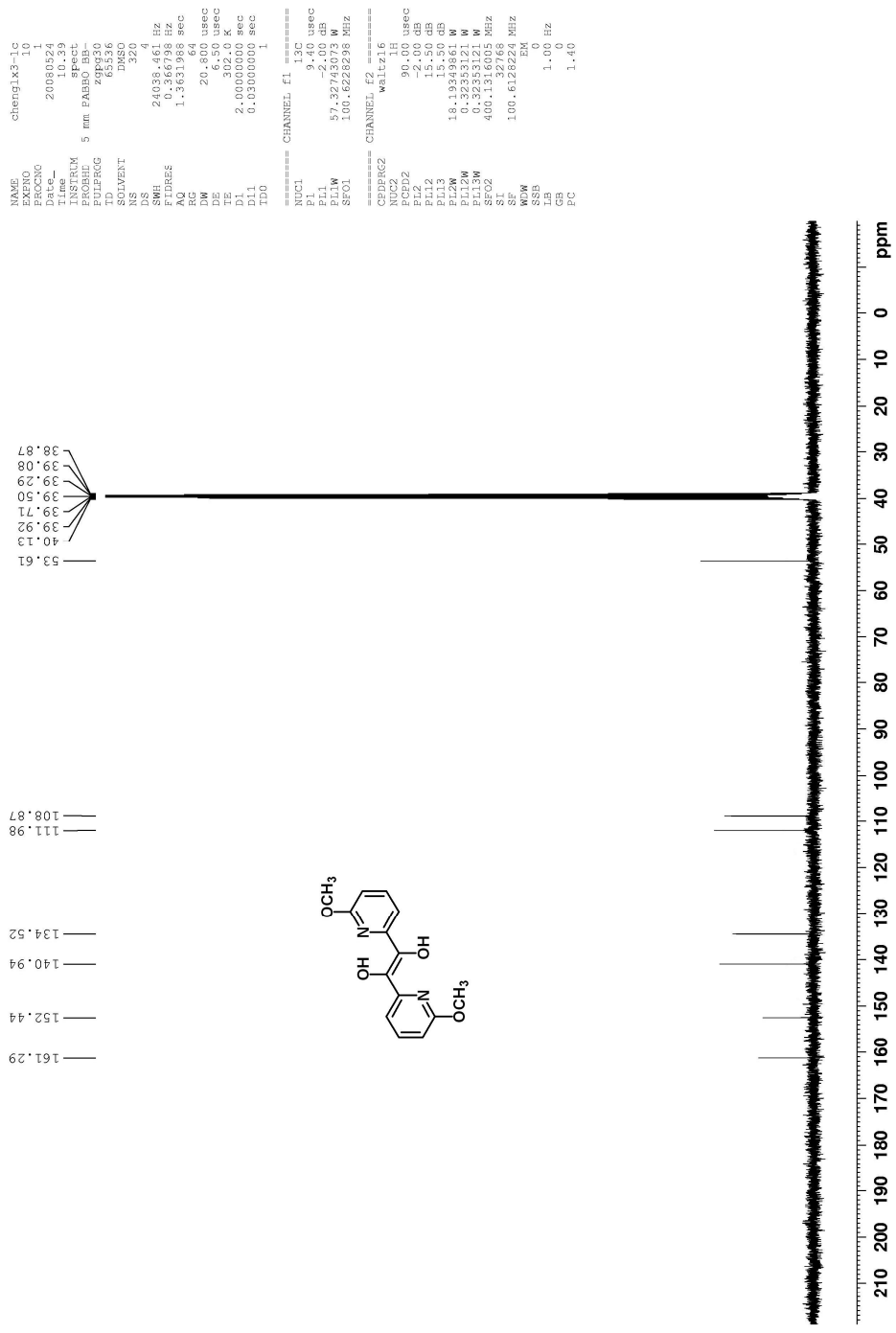
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PL13 15.50 dB
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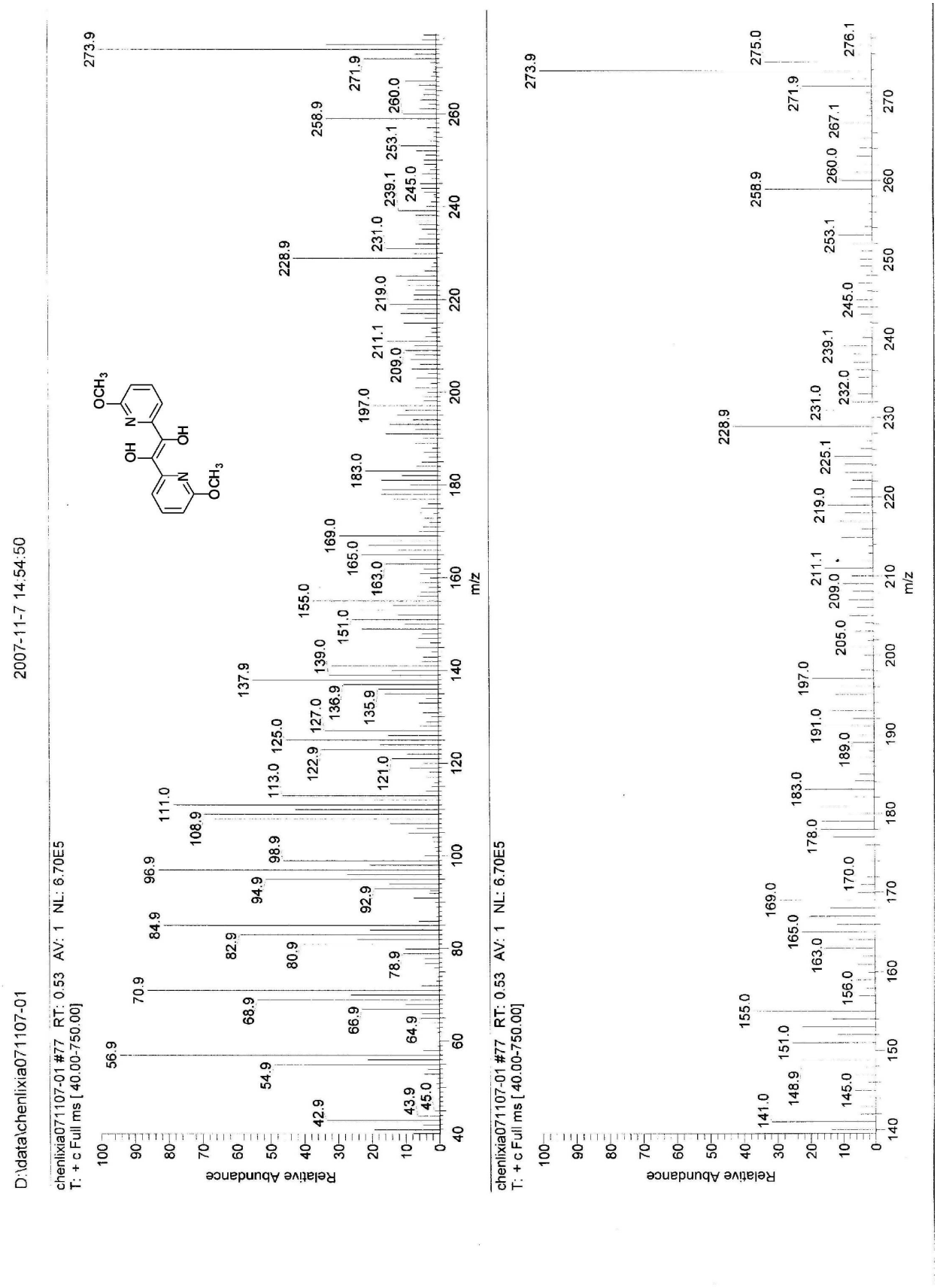
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OH
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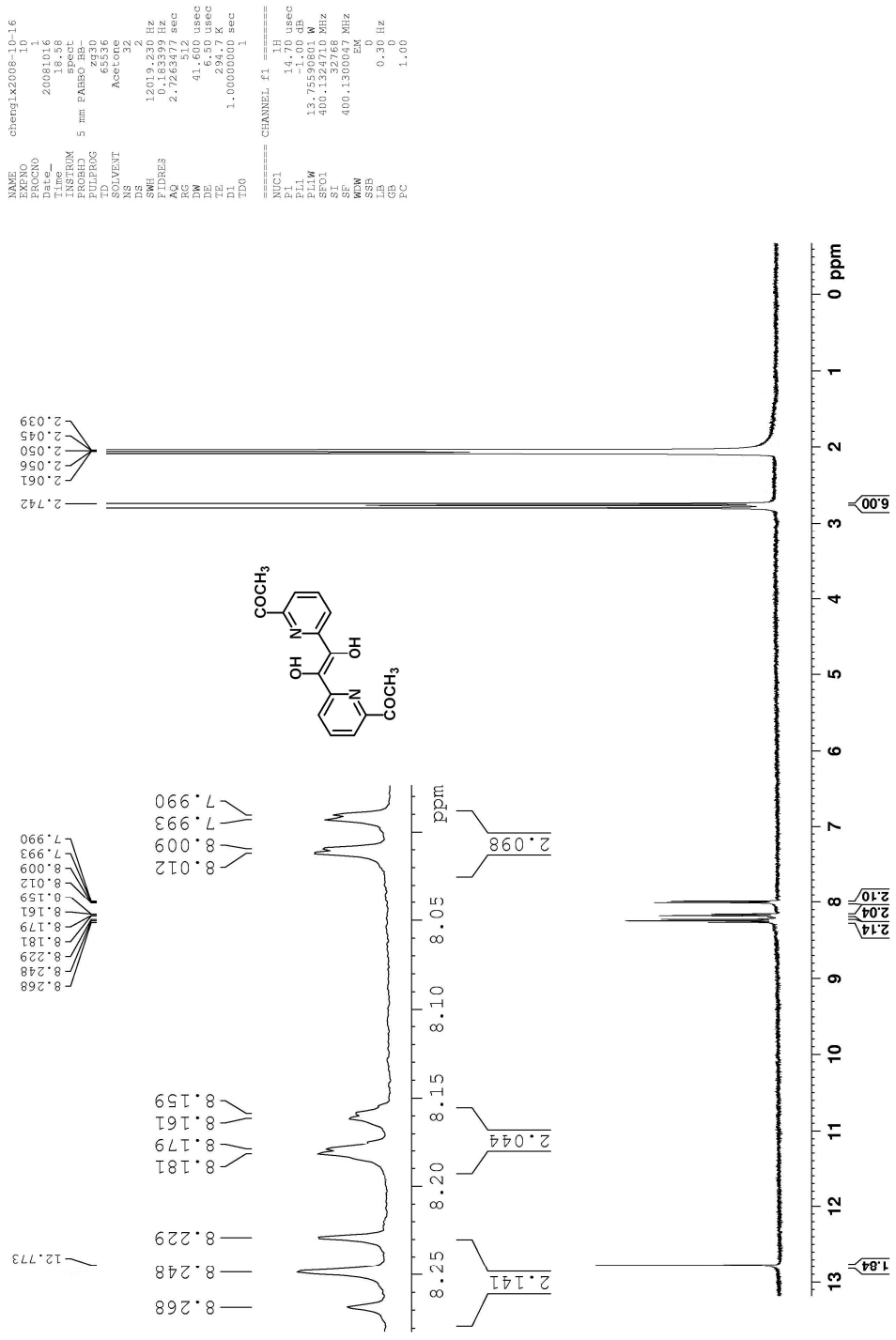
Relative Abundance
m/z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TD0 1
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WDW EM
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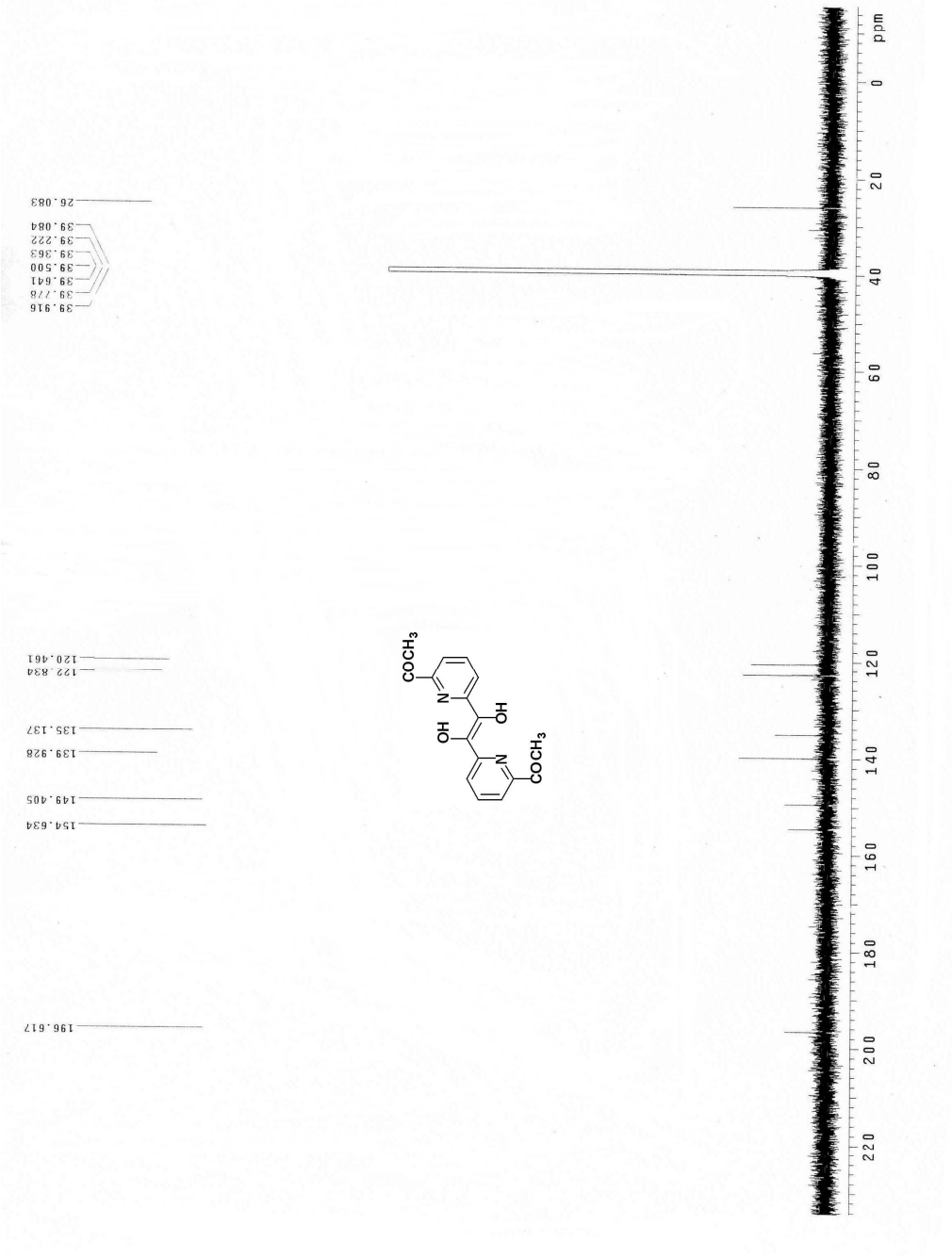

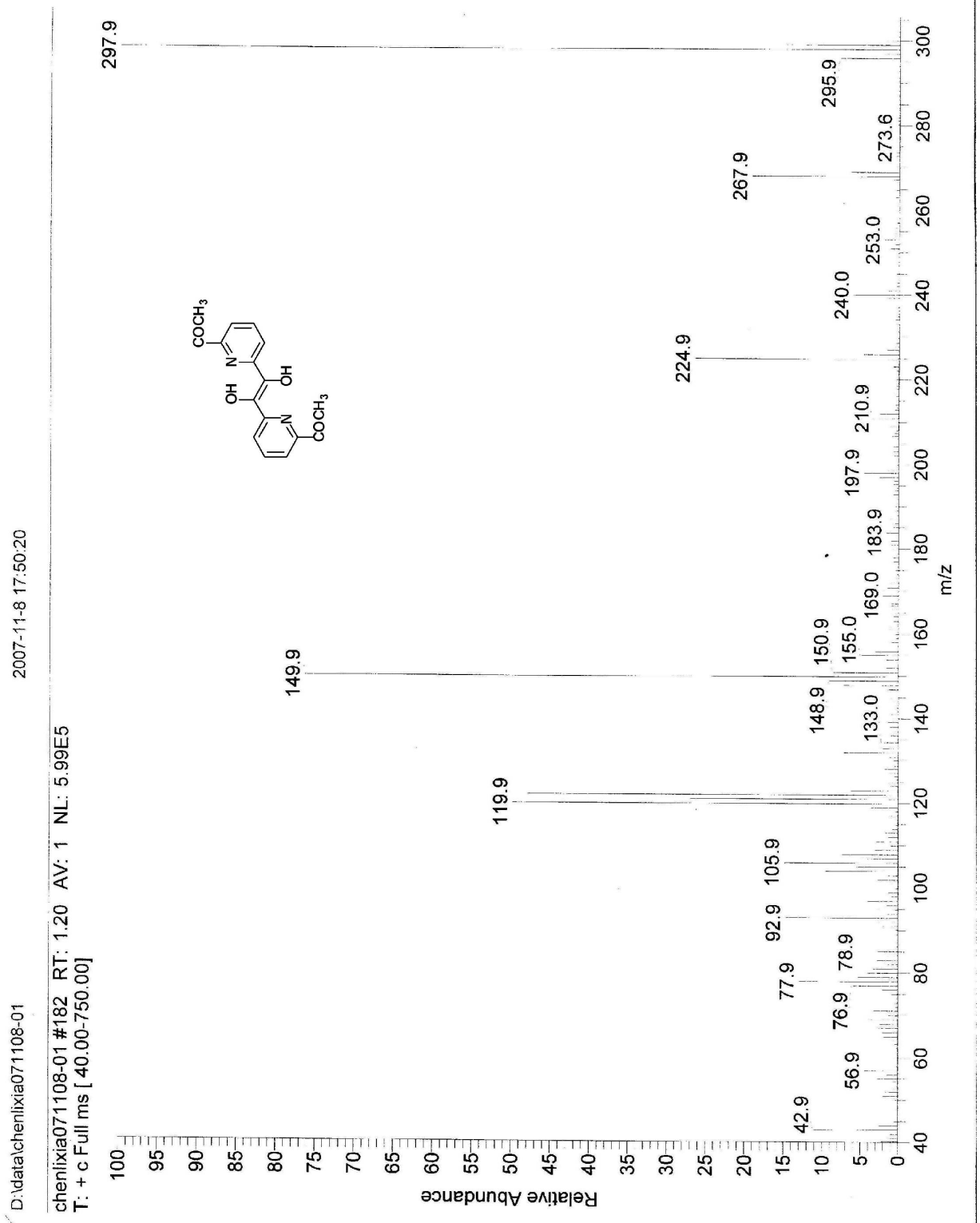
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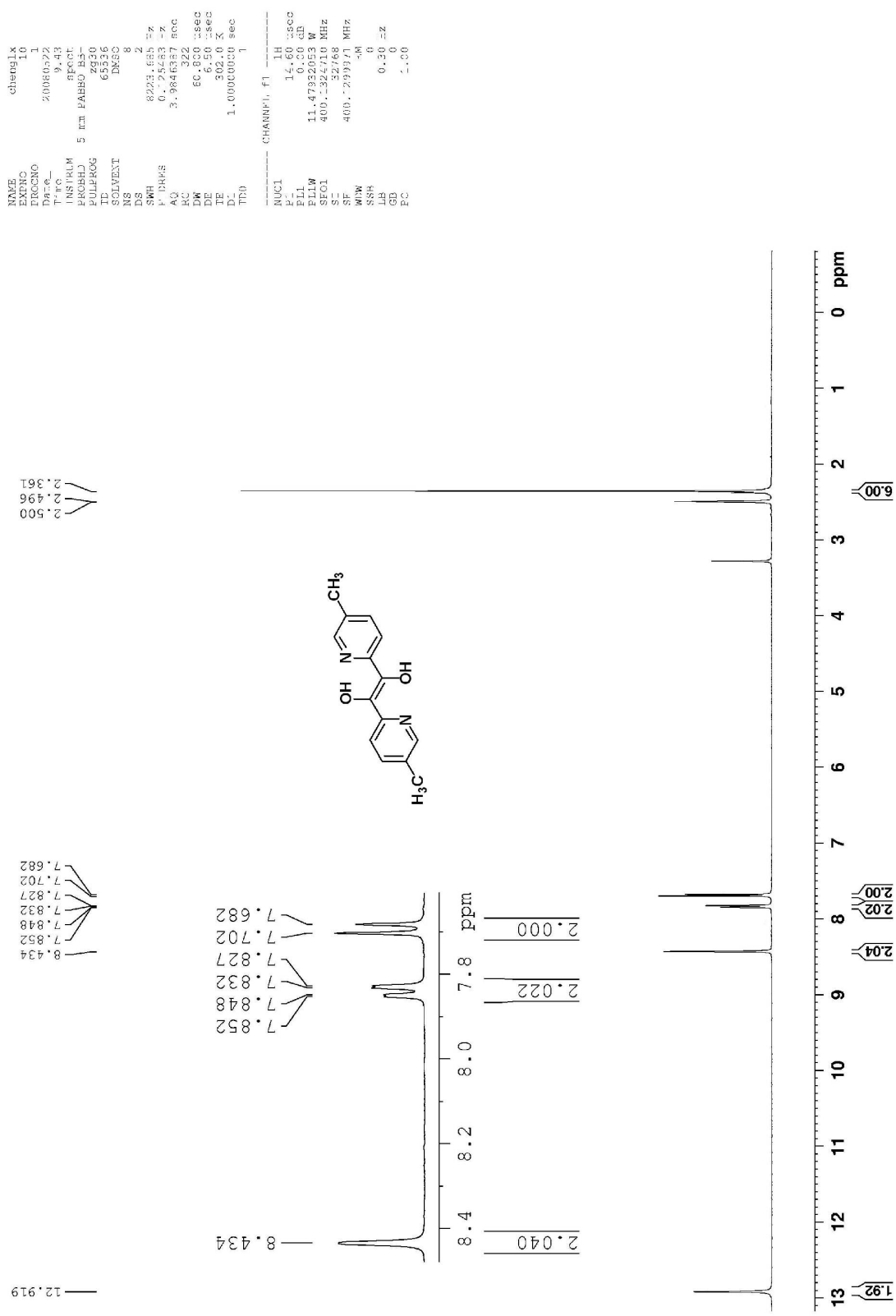
COCH3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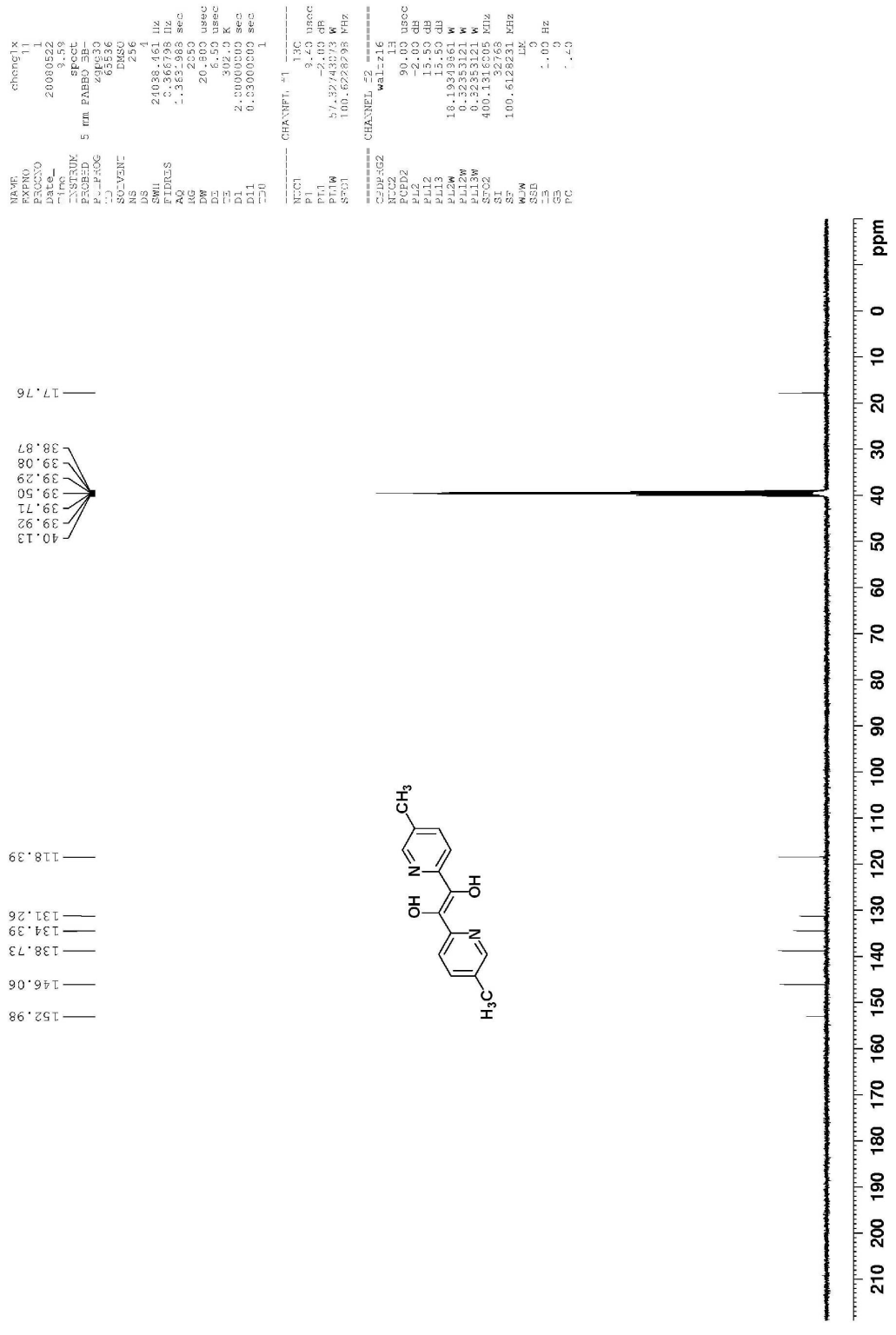
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FIDRES .366798 Hz
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RG 2050
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DE 6.50 usec
TE 302.0 K
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D11 0.03000000 sec
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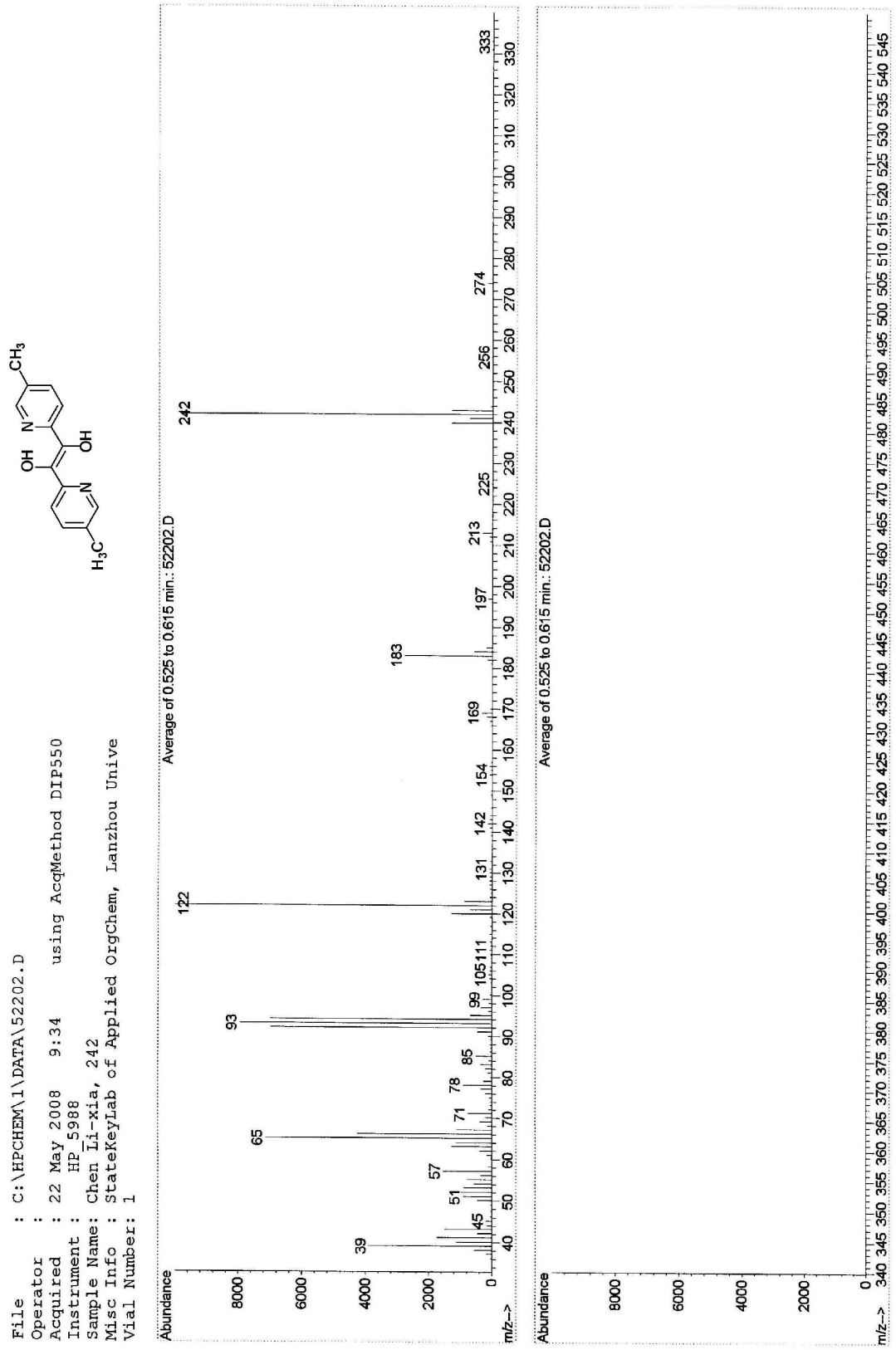
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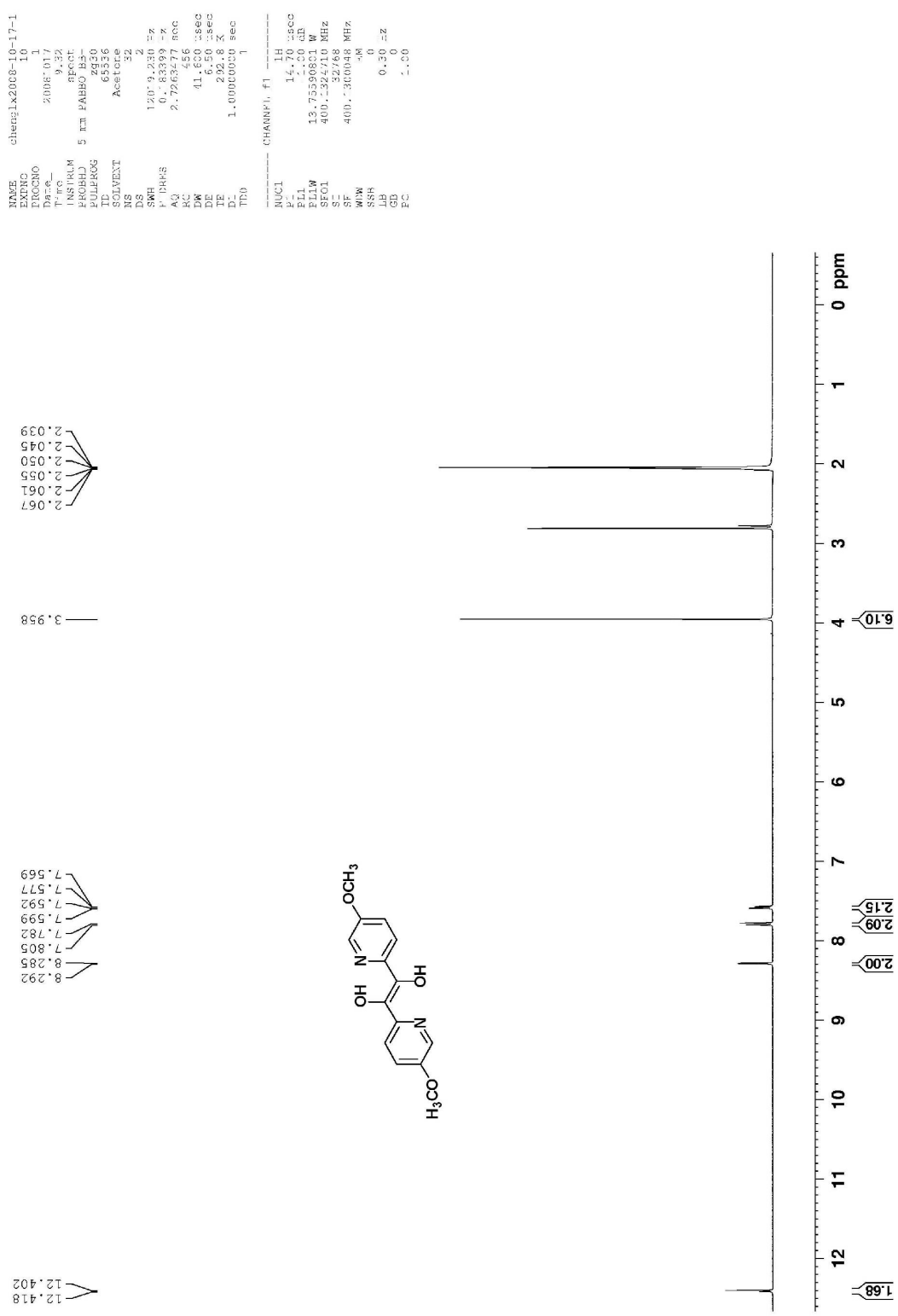
Abundance
m/z-->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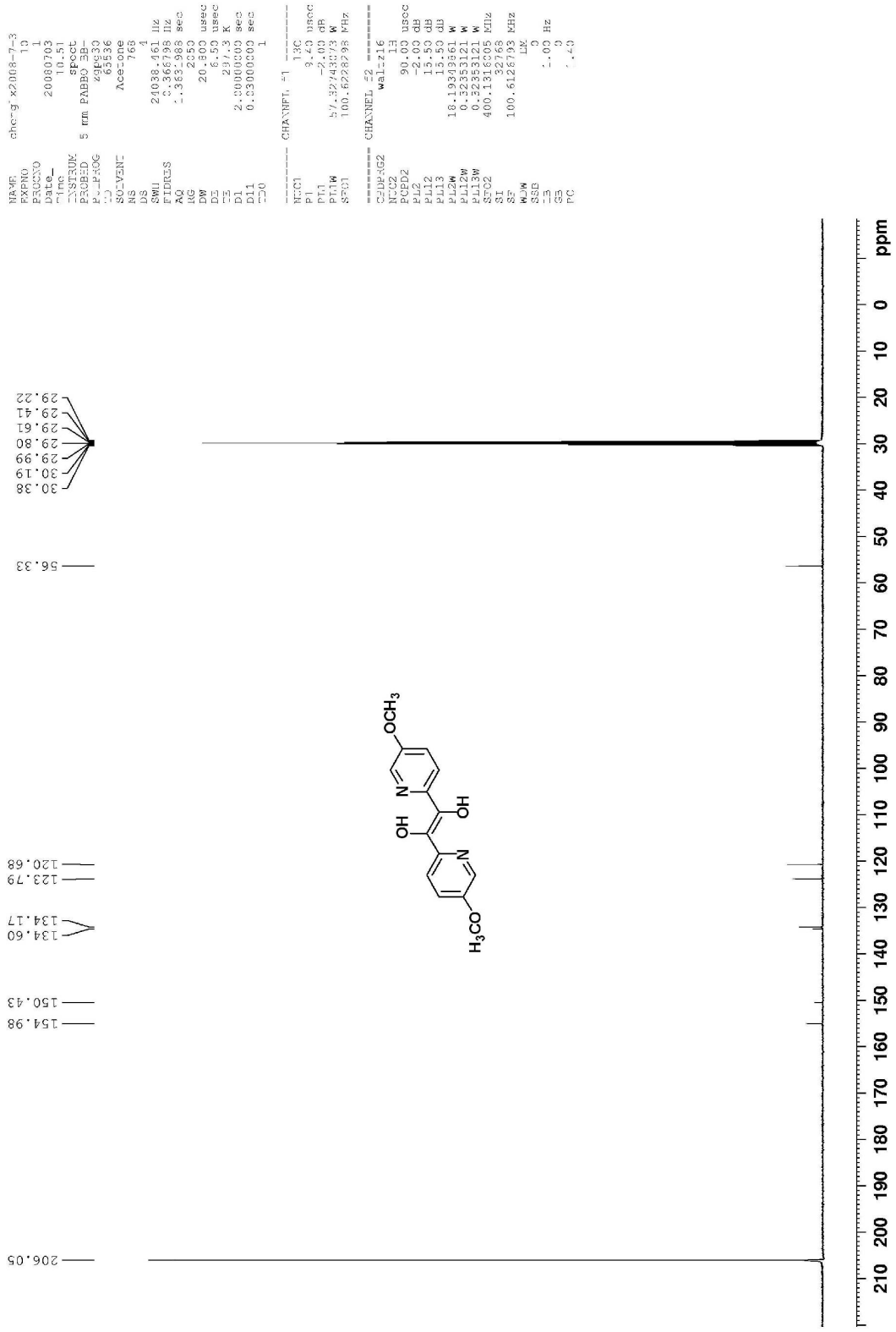
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H3CO
ppm

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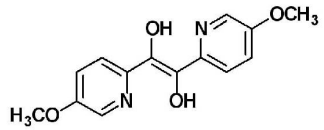

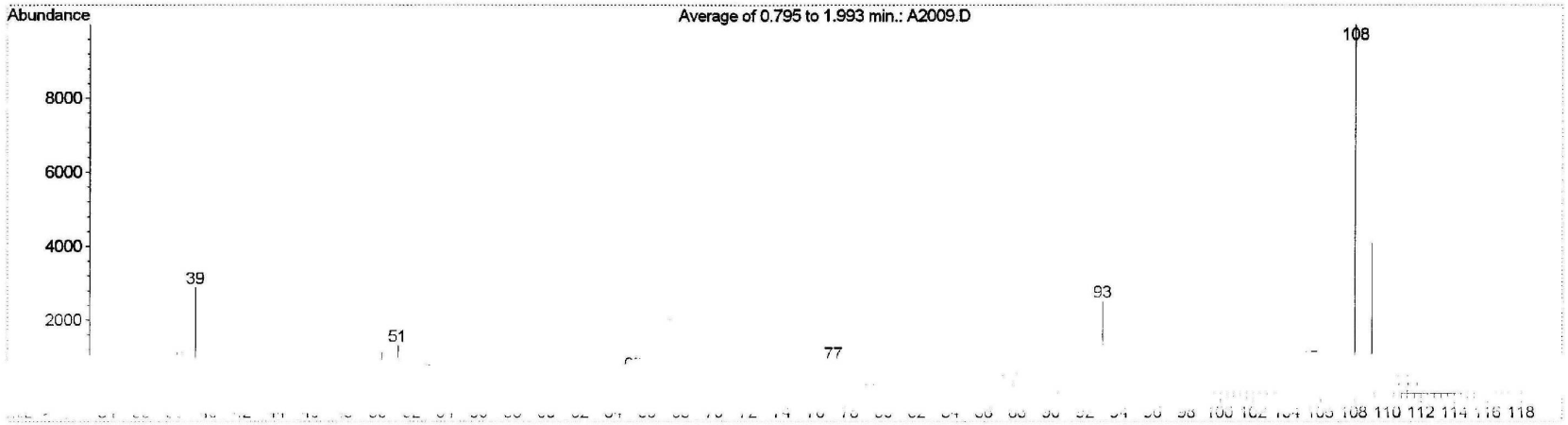

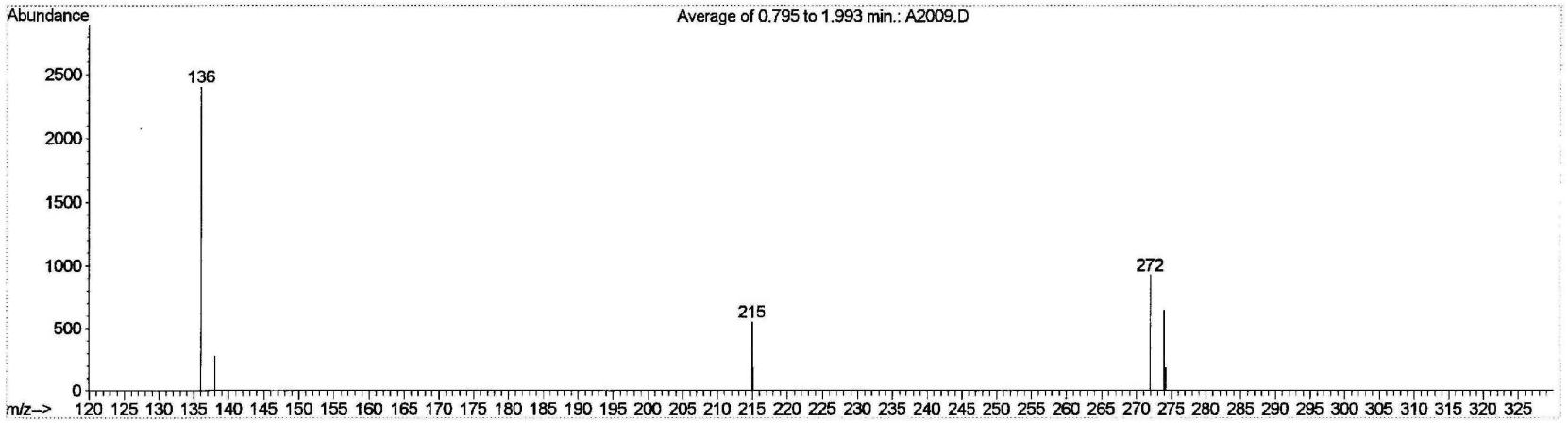

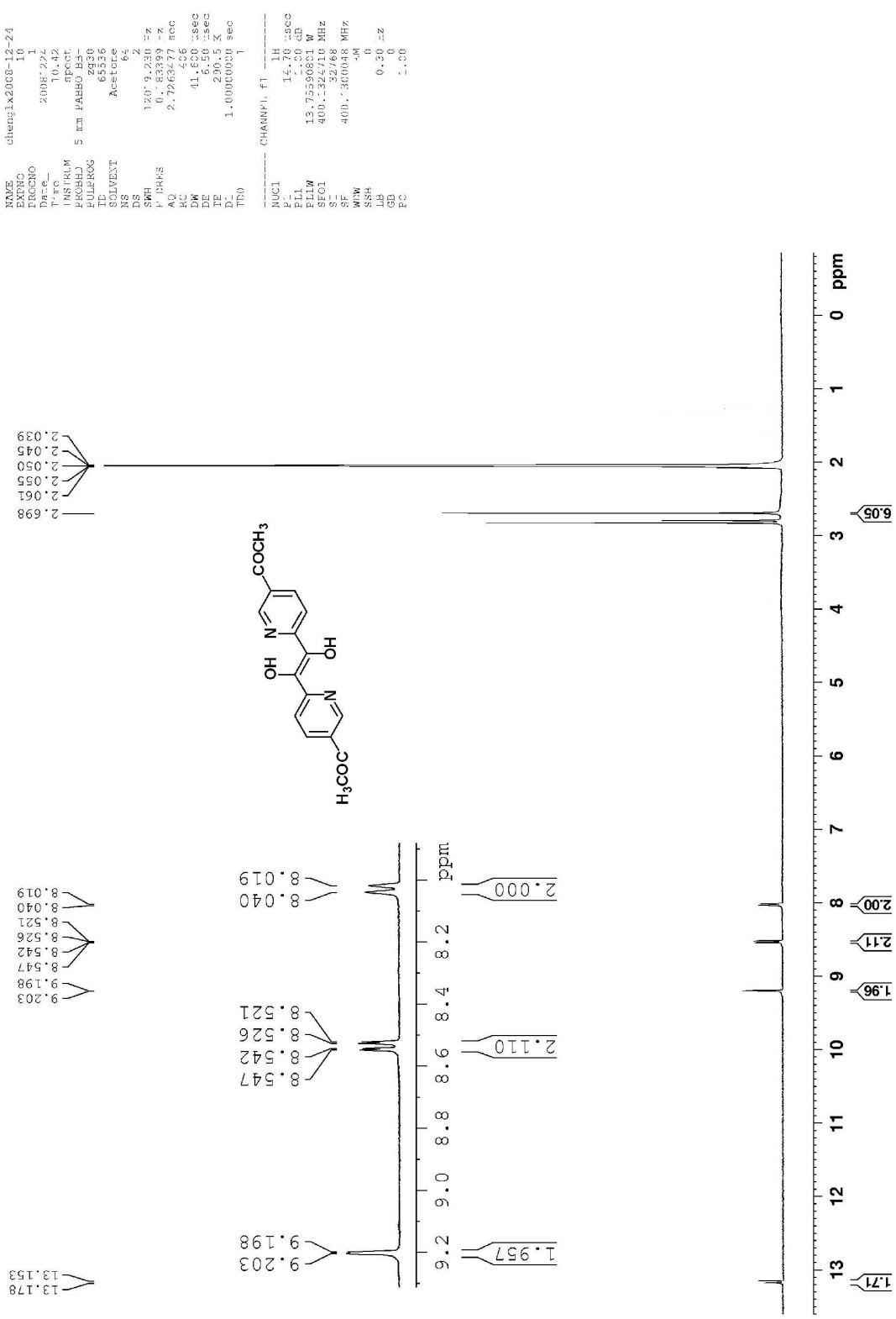
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AQ 2.7263477 sec
RG 256
DW 41.600 usec
DE 6.50 usec
TE 290.5 K
D1 1.00000000 sec
TD0 1
CHANNEL f1
NUC1 1H
P1 14.70 usec
PL1 -1.00 dB
PL1W 13.75590801 W
SFO1 400.1324710 MHz
SI 32768
SF 400.1300048 MHz
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PC 1.00
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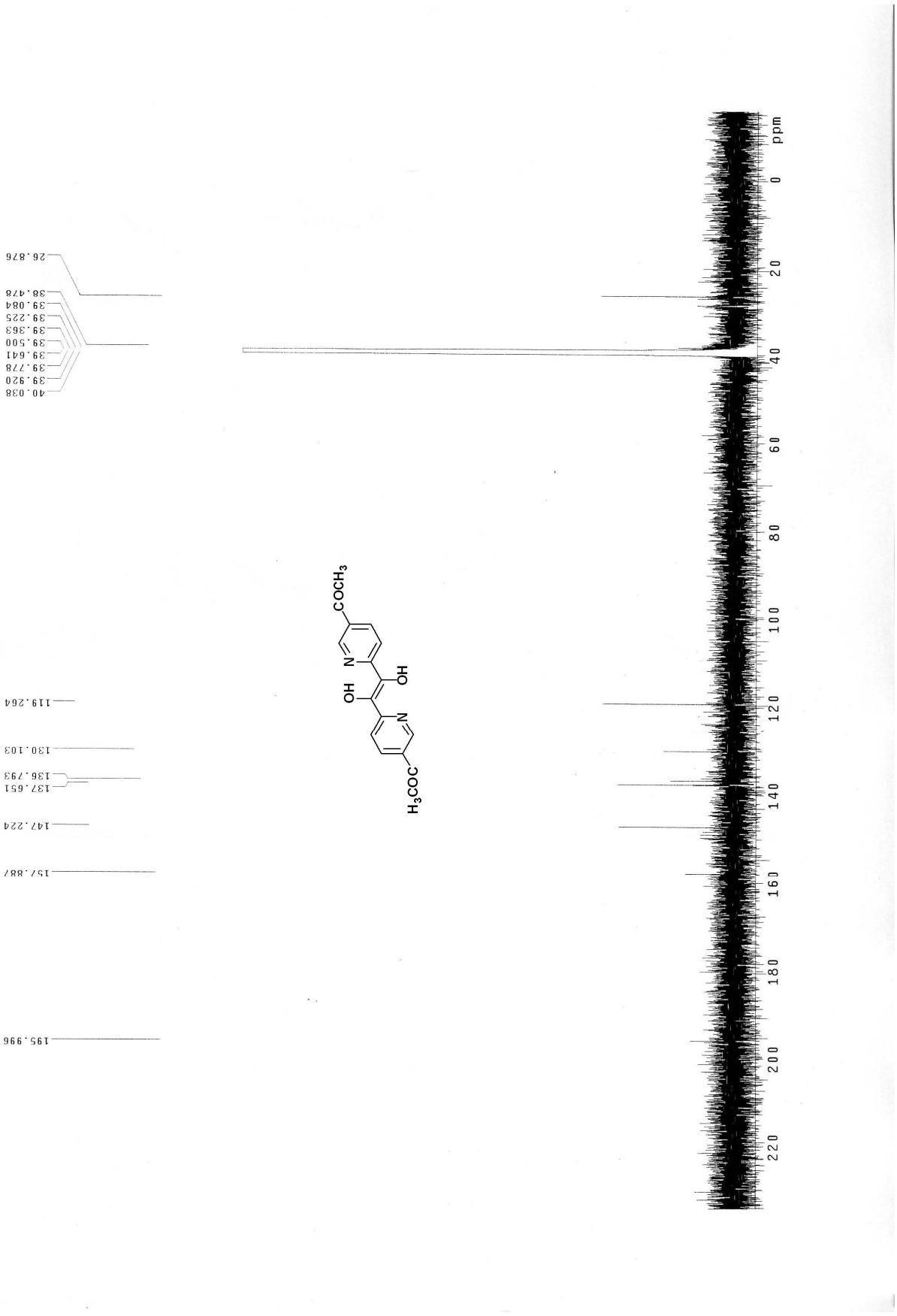

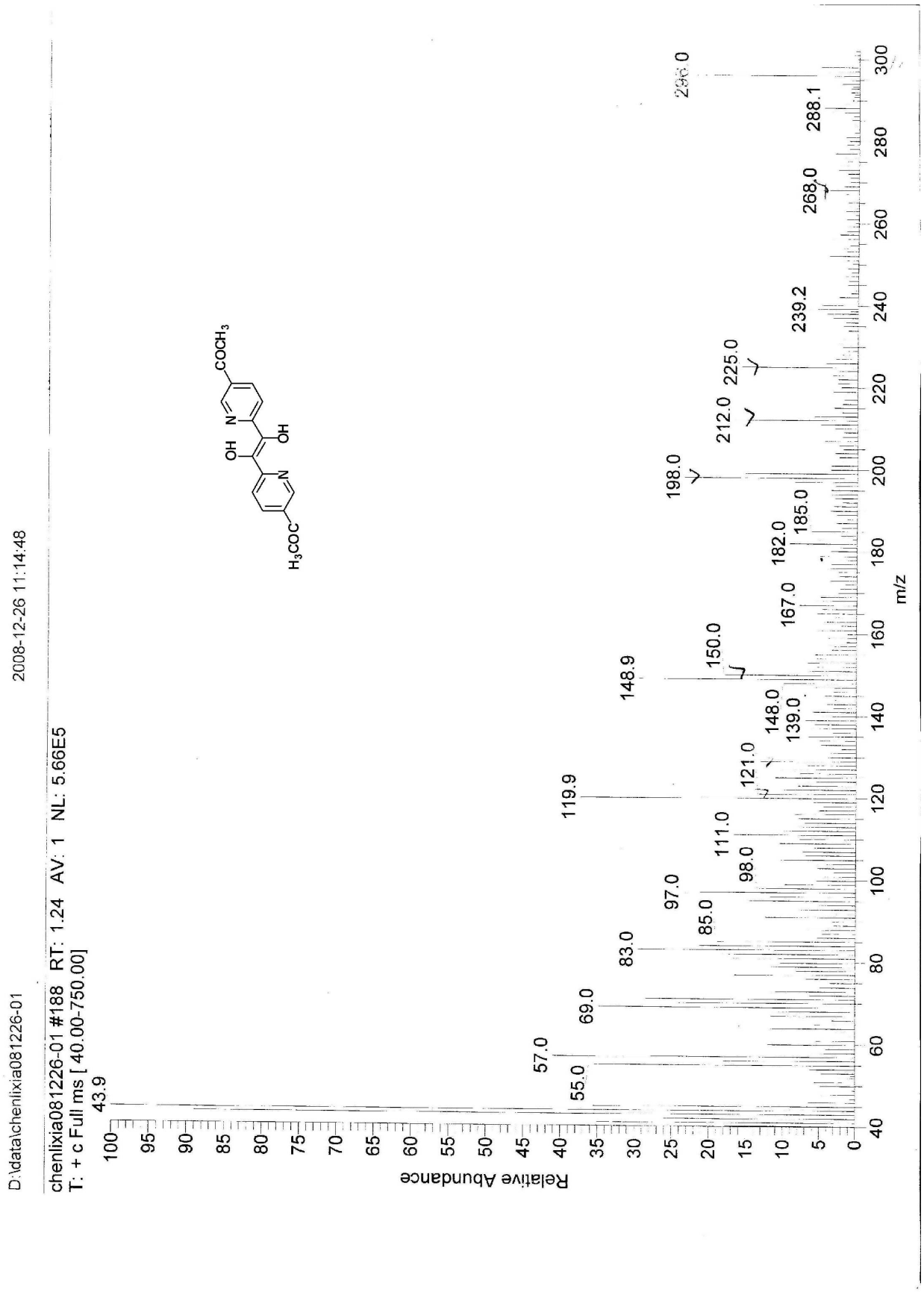
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OH
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83.0
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