

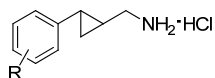
# Selective 5-Hydroxytryptamine 2C Receptor Agonists Derived from the Lead Compound Tranylcypromine: Identification of Drugs with Antidepressant-Like Action

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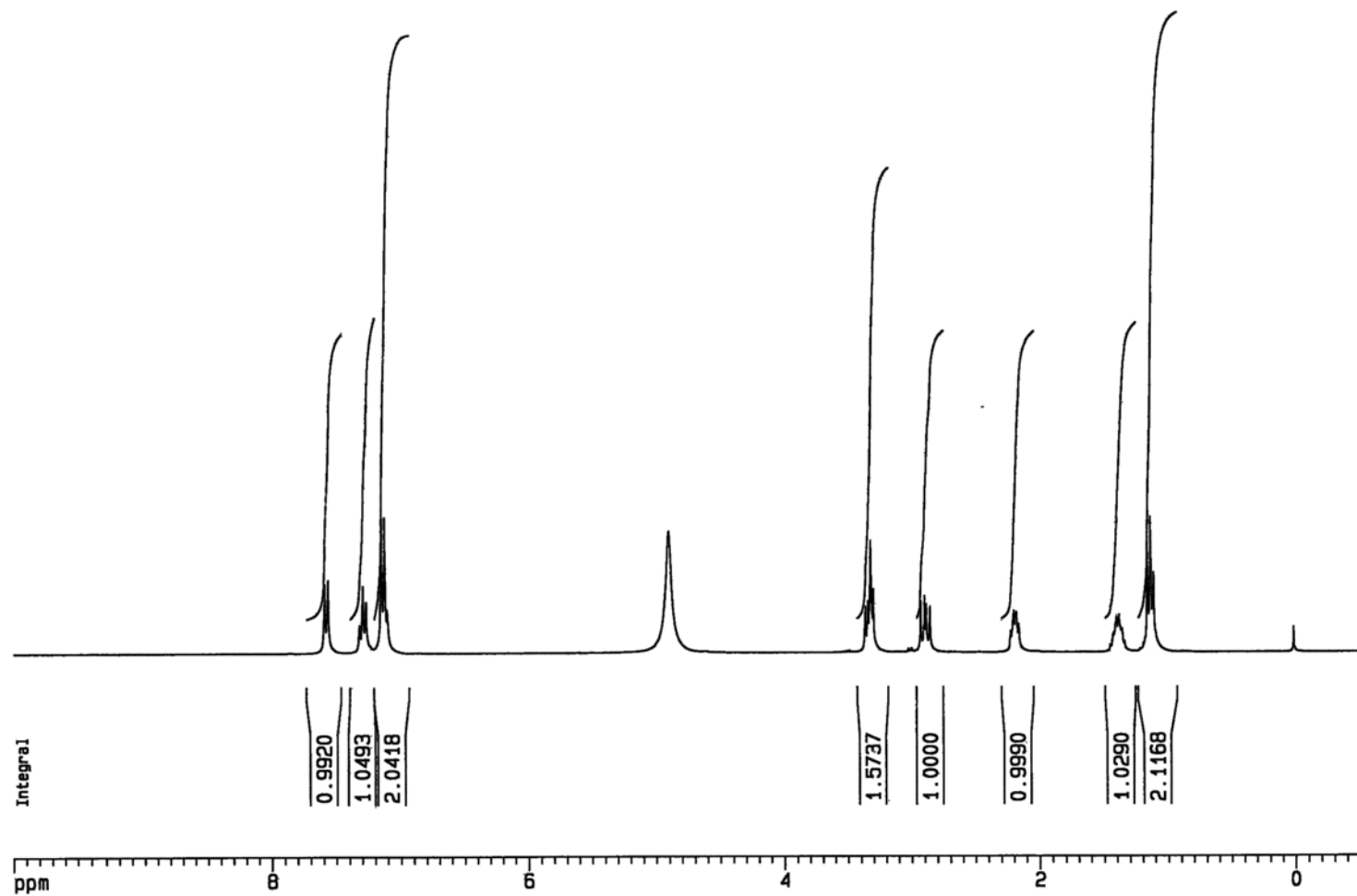
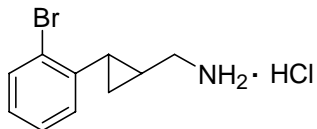
Table S1. Functional Activity of Compounds **66–74**, **78**, **80–84**, and **86–90** in Calcium Flux Assays Using HEK-293 CellsStably Expressing the Human 5-HT<sub>2A</sub>, 5-HT<sub>2B</sub>, or 5-HT<sub>2C</sub> Receptor

compd <sup>a</sup>	R	5-HT <sub>2A</sub>			5-HT <sub>2B</sub>			5-HT <sub>2C</sub>			Selectivity		
		EC <sub>50</sub> ±SEM (nM)	E <sub>max</sub> ±SEM <sup>b</sup>	n <sup>c</sup>	EC <sub>50</sub> ±SEM (nM)	E <sub>max</sub> ±SEM <sup>b</sup>	n <sup>c</sup>	EC <sub>50</sub> ±SEM (nM)	E <sub>max</sub> ±SEM <sup>b</sup>	n <sup>c</sup>	2A/2C	2B/2C	
5-HT (1)		17	±7.1 100%	14	3.0 ±1.5	100%	12	0.12 ±0.08	100%	17	134	24	
<b>66</b>		NA		2	> 1000	43% ±19%	4	301 ±278	74% ±3%	4	> 3		
<b>67</b>		NA		2	> 1000	10% ±1%	2	1965 ±153	66% ±0.3%	2	> 1		
<b>68</b>		NA		2	NA		2	695 ±444	79% ±6%	3			
<b>69</b>		NA		3	NA		3	1577 ±1716	87% ±11%	5			
<b>70</b>		NA		2	NA		2	> 1000	61% ±6%	3			
<b>71</b>		NA		2	NA		2	> 1000	41% ±2%	2			
<b>72</b>		NA		2	NA		2	> 1000	39% ±10%	2			
<b>73</b>		NA		2	> 1000	10% ±27%	2	> 1000	45% ±3%	2			
<b>74</b>		NA		2	NA		2	1196 ±639	75% ±12%	2			
<b>78</b>		NA		2	NA		2	1179 ±531	77% ±4%	2			
<b>80</b>		NA		2	NA		2	> 1000	30% ±13%	2			
<b>81</b>		NA		2	NA		2	> 1000	39% ±6%	2			
<b>82</b>		NA		2	NA		2	> 1000	38% ±8%	2			
<b>83</b>		NA		2	NA		2	> 1000	39% ±26%	3			
<b>84</b>		NA		2	NA		2	> 1000	26% ±10%	2			
5-HT (1)		10	±1.7 100%	15	1.0 ±0.10	100%	15	0.09 ±0.01	100%	11	111	11	
<b>86</b>		NA		2	204 ±39	84% ±4%	3	232 ±99	88% ±6%	2	> 43	0.88	
<b>87</b>		> 10 μM	42% ±5%	2	185 ±34	84% ±2%	3	136 ±77	91% ±3%	3		1.4	
<b>88</b>		NA		2	1739 ±302	17% ±2%	3	332 ±103	79% ±10%	3	> 30	5.2	
<b>89</b>		NA		3	NA		3	> 5 μM	62% ±4%	2			
<b>90</b>		NA		2	NA		2	> 10 μM	24% ±3%	2			

<sup>a</sup> Tested in two independent screening campaigns using different cell lines/passages.<sup>b</sup> Percent of maximal activation by 5-HT; activation at 10 μM for compounds without EC<sub>50</sub> value.<sup>c</sup> n: Number of concentration curves from ≥2 (typically ≥3) independent experiments.NA: E<sub>max</sub> ≤ 12%.

## **Copy of $^1\text{H}$ , $^{13}\text{C}$ -NMR and HPLC Spectra**

*trans*-[2-(2-Bromophenyl)cyclopropyl]methanamine Hydrochloride (29).



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PROCNO 1

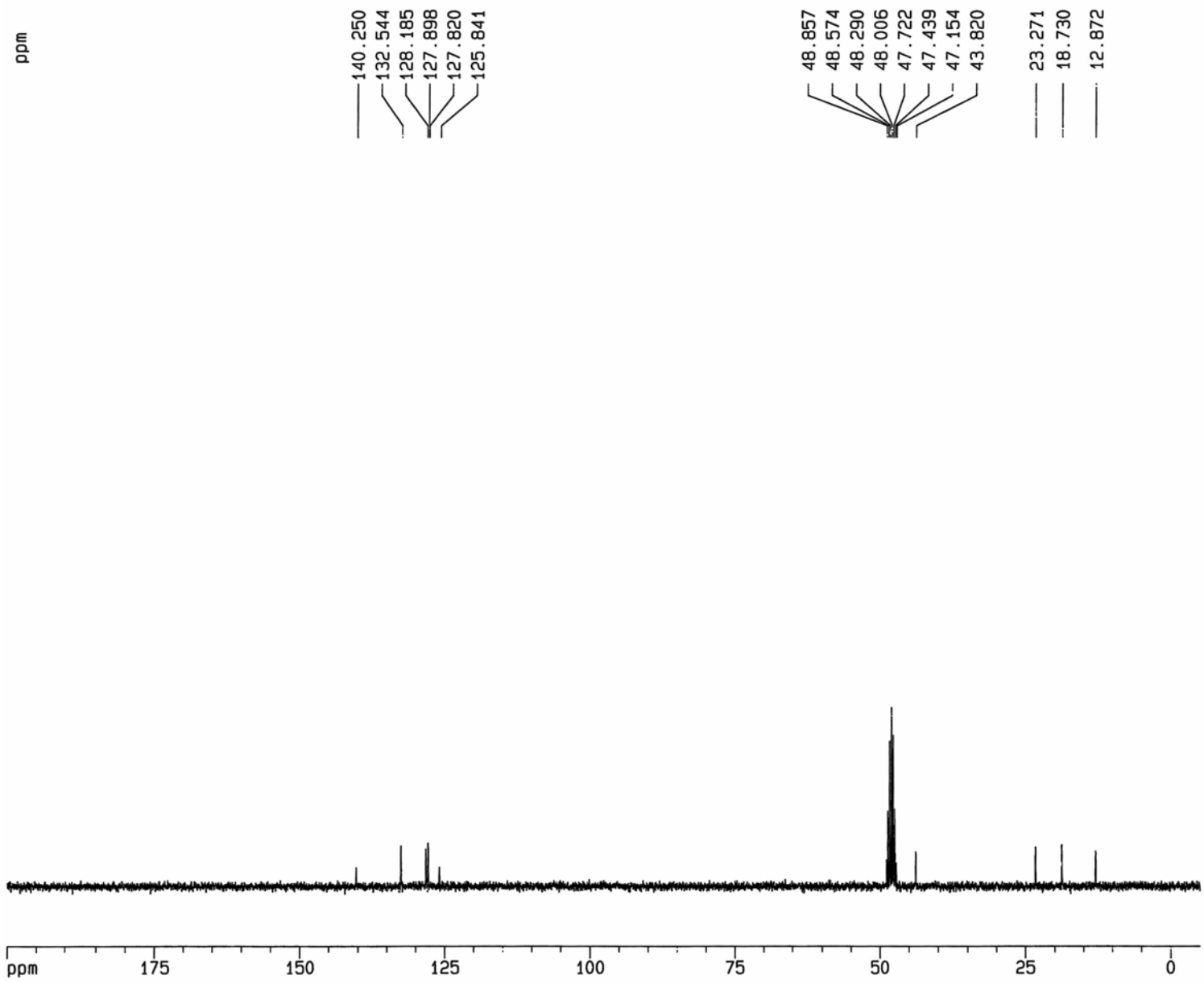
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SOLVENT MeOH  
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SWH 6172.839 Hz  
FIDRES 0.094190 Hz  
AQ 5.3084660 sec  
RG 228.1  
DW 81.000 usec  
DE 6.00 usec  
TE 300.0 K  
D1 1.0000000 sec

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PL1 0.00 dB  
SF01 300.1318534 MHz

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WDW EM  
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GB 0  
PC 1.00

1D NMR plot parameters  
CX 20.00 cm  
F1P 10.000 ppm  
F1 3001.30 Hz  
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F2 -150.07 Hz  
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ppm



Current Data Parameters  
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SWH 18832.393 Hz  
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AQ 1.7400308 sec  
RG 1024  
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DE 6.00 usec  
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D11 0.03000000 sec  
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PL1 -2.00 dB  
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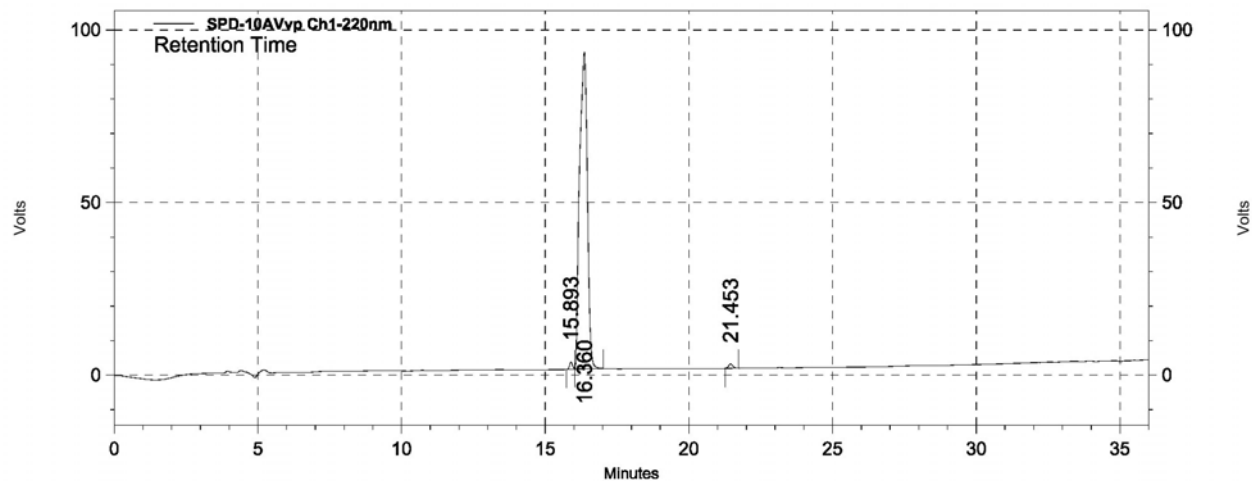
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PL13 22.00 dB  
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LB 1.00 Hz  
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PC 1.40

1D NMR plot parameters  
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HZCM 773.54419 Hz/cm

# Area % Report

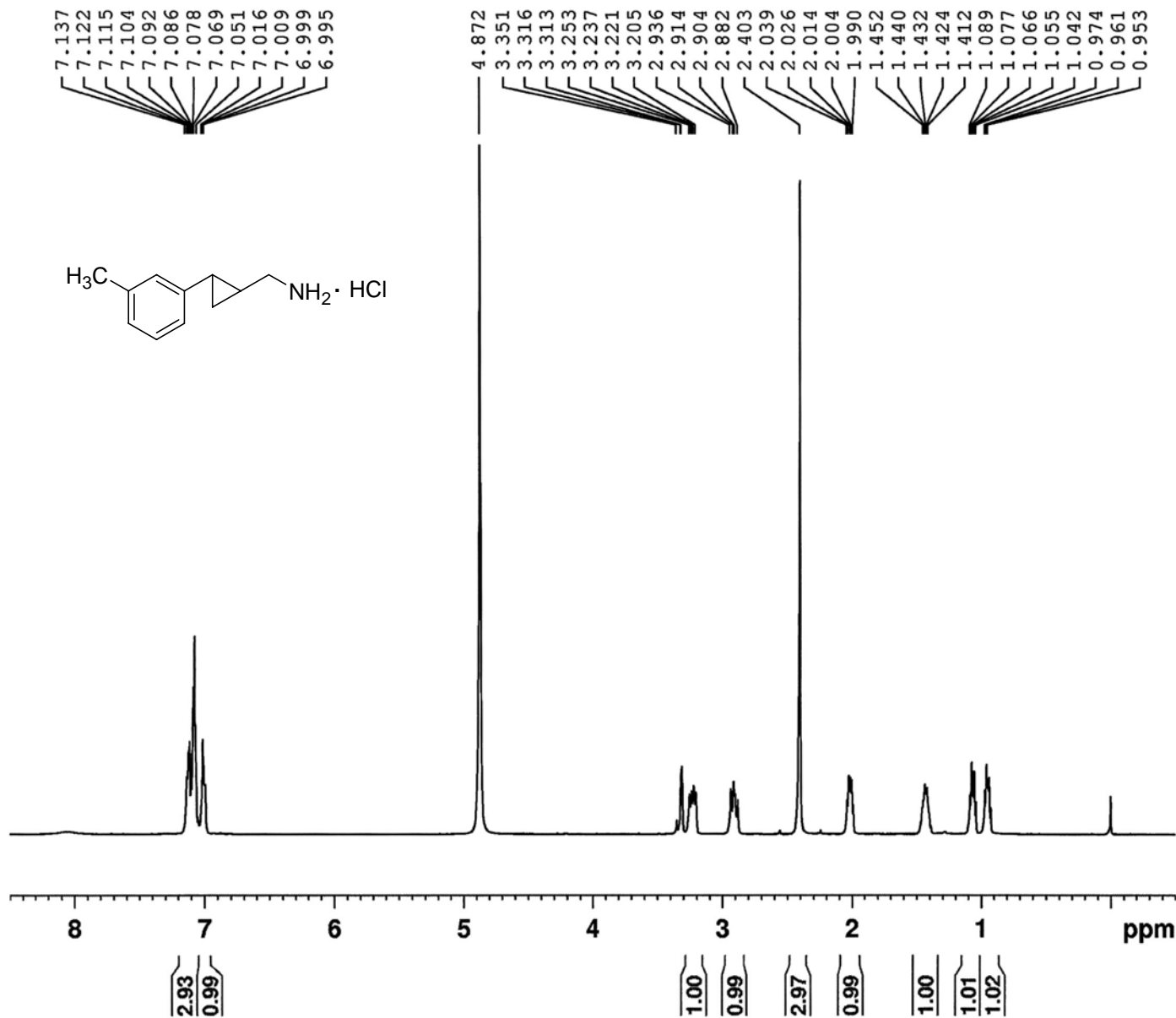
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**SPD-10AVvp**  
**Ch1-220nm**  
**Results**

Retention Time	Area	Area %	Height	Height %
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16.360	1721850	98.40	91799	96.44
21.453	13016	0.74	1273	1.34
<b>Totals</b>	<b>1749845</b>	<b>100.00</b>	<b>95183</b>	<b>100.00</b>

*trans*-[2-(3-Methylphenyl)cyclopropyl]methylamine Hydrochloride (37).



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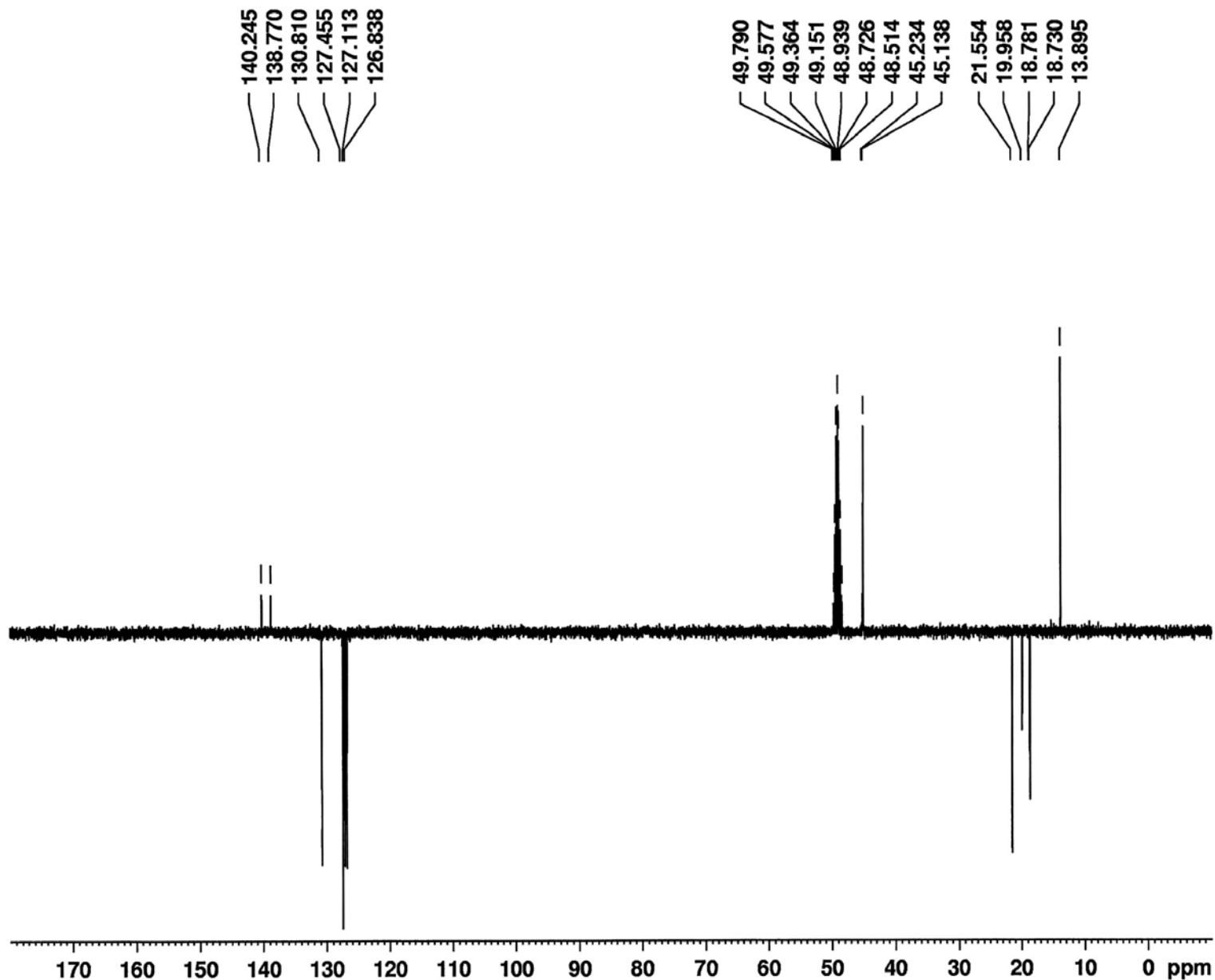
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PROCNO        .

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SOLVENT       MeOD
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1D NMR plot parameters
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F2            -200.08 Hz
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HZCM          120.05099 Hz/cm
    
```



Current Data Parameters

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 PROCNO 1

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 SOLVENT MeOD  
 NS 128  
 DS 4  
 SWH 23980.814 Hz  
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 AQ 1.3664756 sec  
 RG 23170.5  
 DW 20.850 usec  
 DE 6.00 usec  
 TE 297.7 K  
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 CNST11 1.0000000  
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 DELTA 0.00001210 sec  
 MCREST 0.0000000 sec  
 MCWRK 0.01500000 sec

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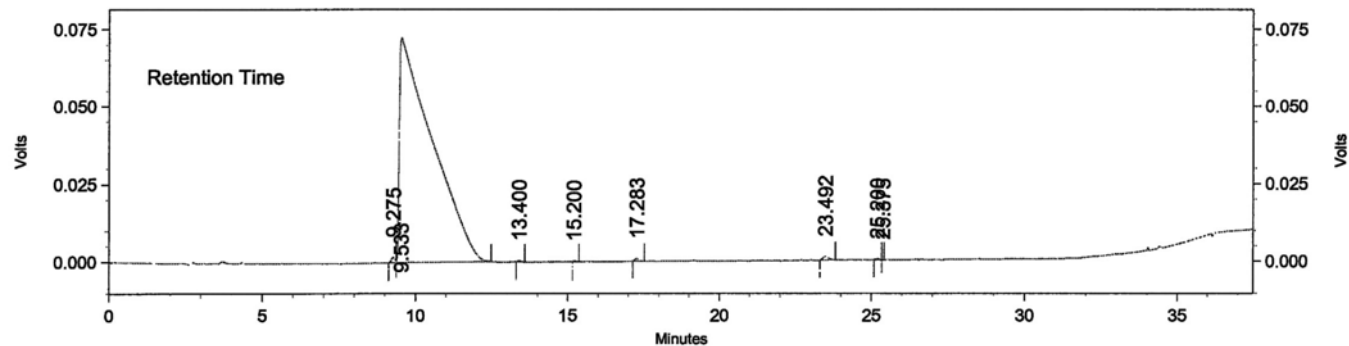
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 PCPD2 80.00 usec  
 PL2 -2.00 dB  
 PL12 13.65 dB  
 SFO2 400.1716007 MHz

F2 - Processing parameters

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 Printed: 10/9/2007 2:44:01 PM



Detector A - 1 (254nm)

Pk #	Retention Time	Area	Area %	Height	Height %
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2	9.533	5404481	99.170	72504	93.714
3	13.400	2513	0.046	365	0.472
4	15.200	1443	0.026	204	0.264
5	17.283	8107	0.149	837	1.082
6	23.492	15443	0.283	1200	1.551
7	25.200	3402	0.062	364	0.470
8	25.375	420	0.008	151	0.195

Totals		5449730	100.000	77367	100.000
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