Supporting Information for

Chemodivergent Tandem Cyclizations of 2-Indolylmethanols with Tryptophols: C–N versus C–C Bond Formation

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1. NMR spectra of products 3 and 4

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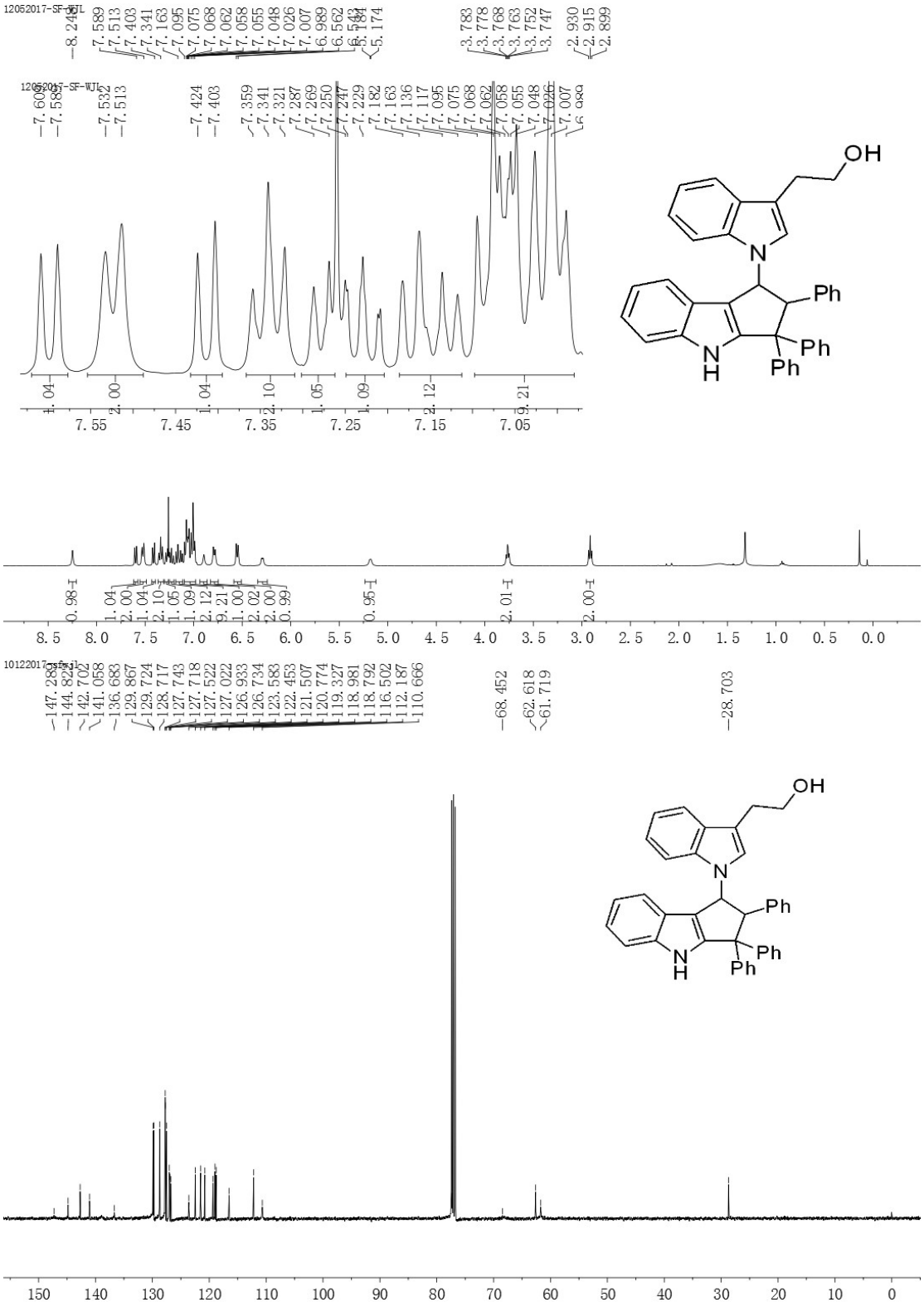

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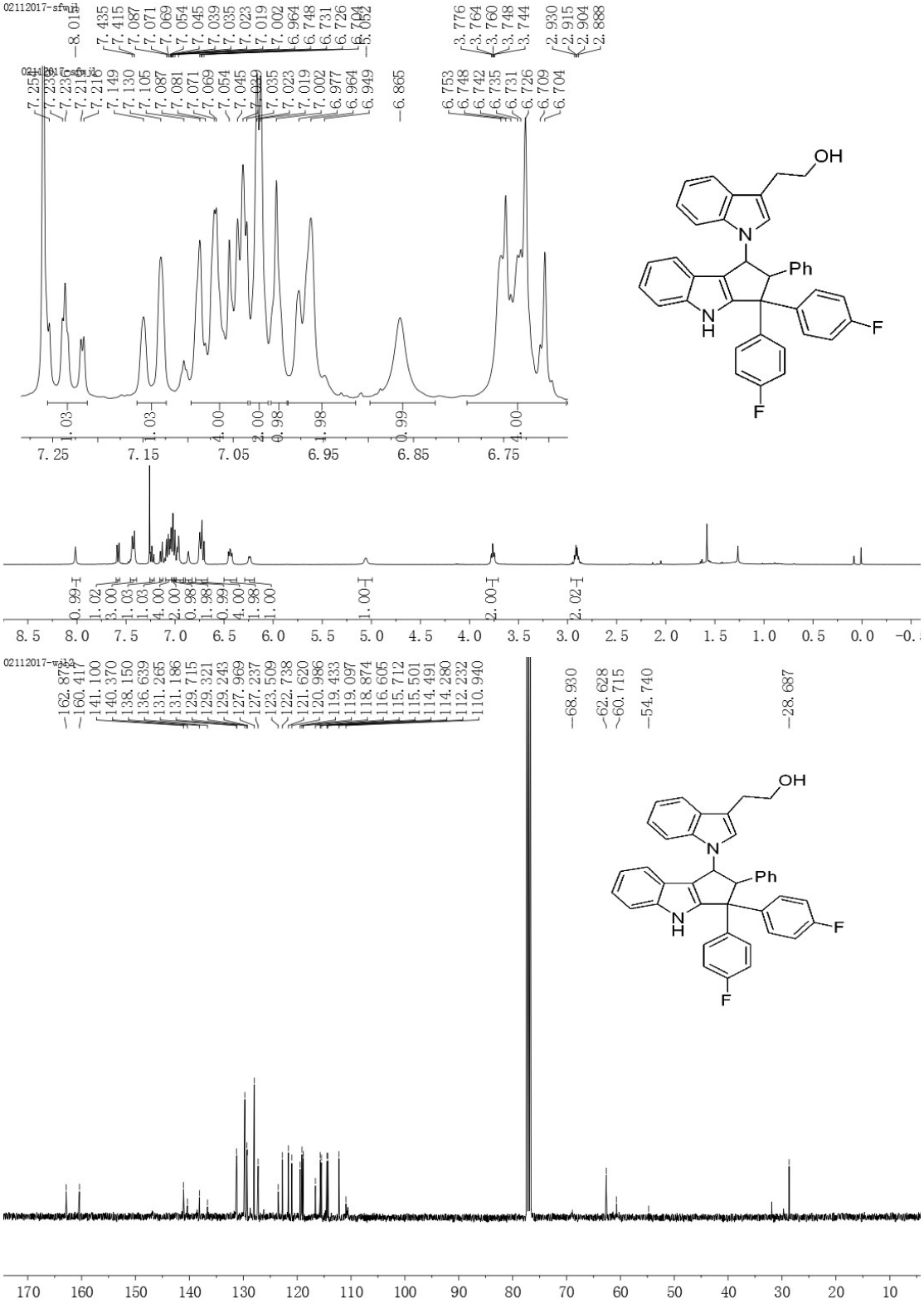

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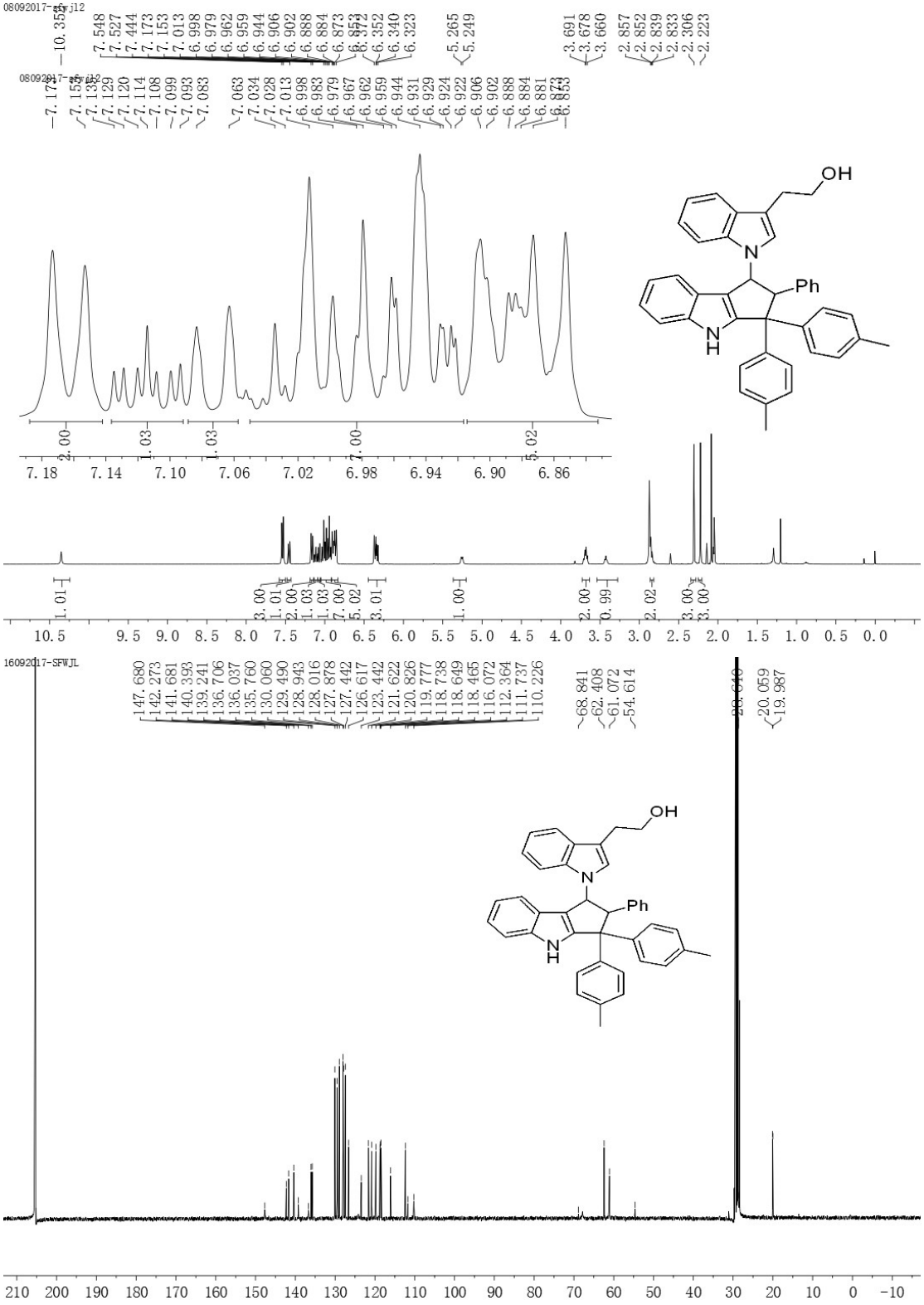

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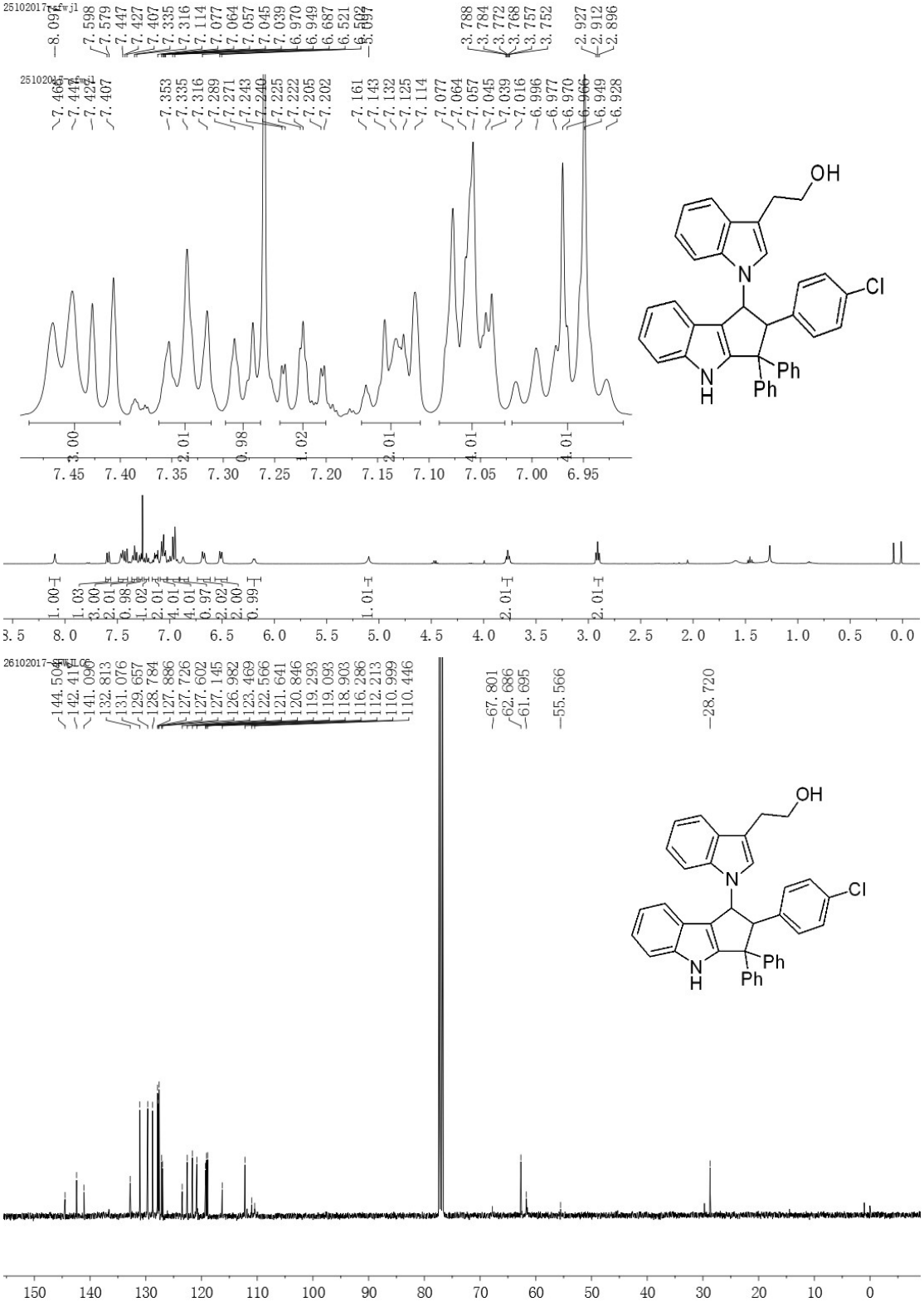

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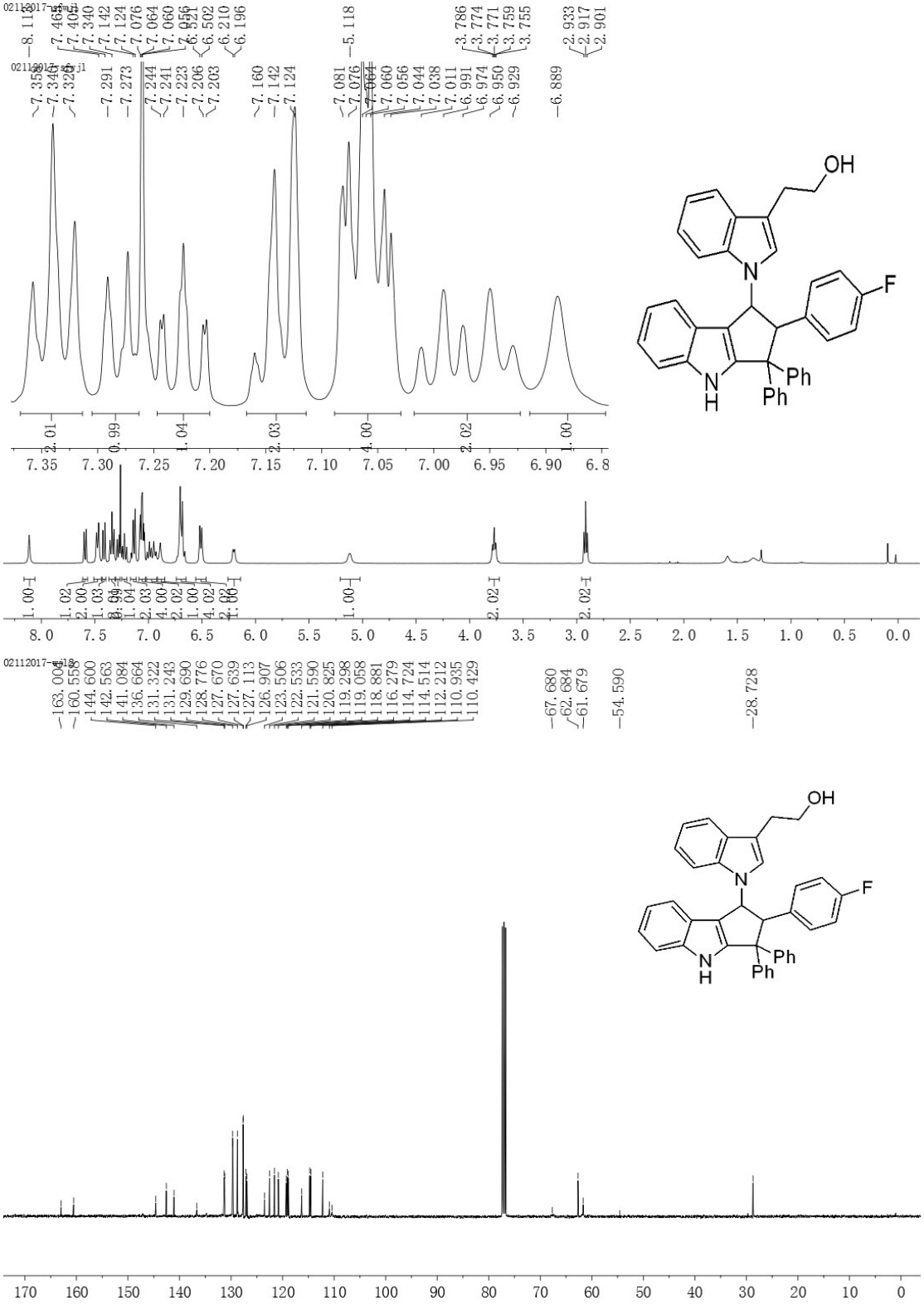

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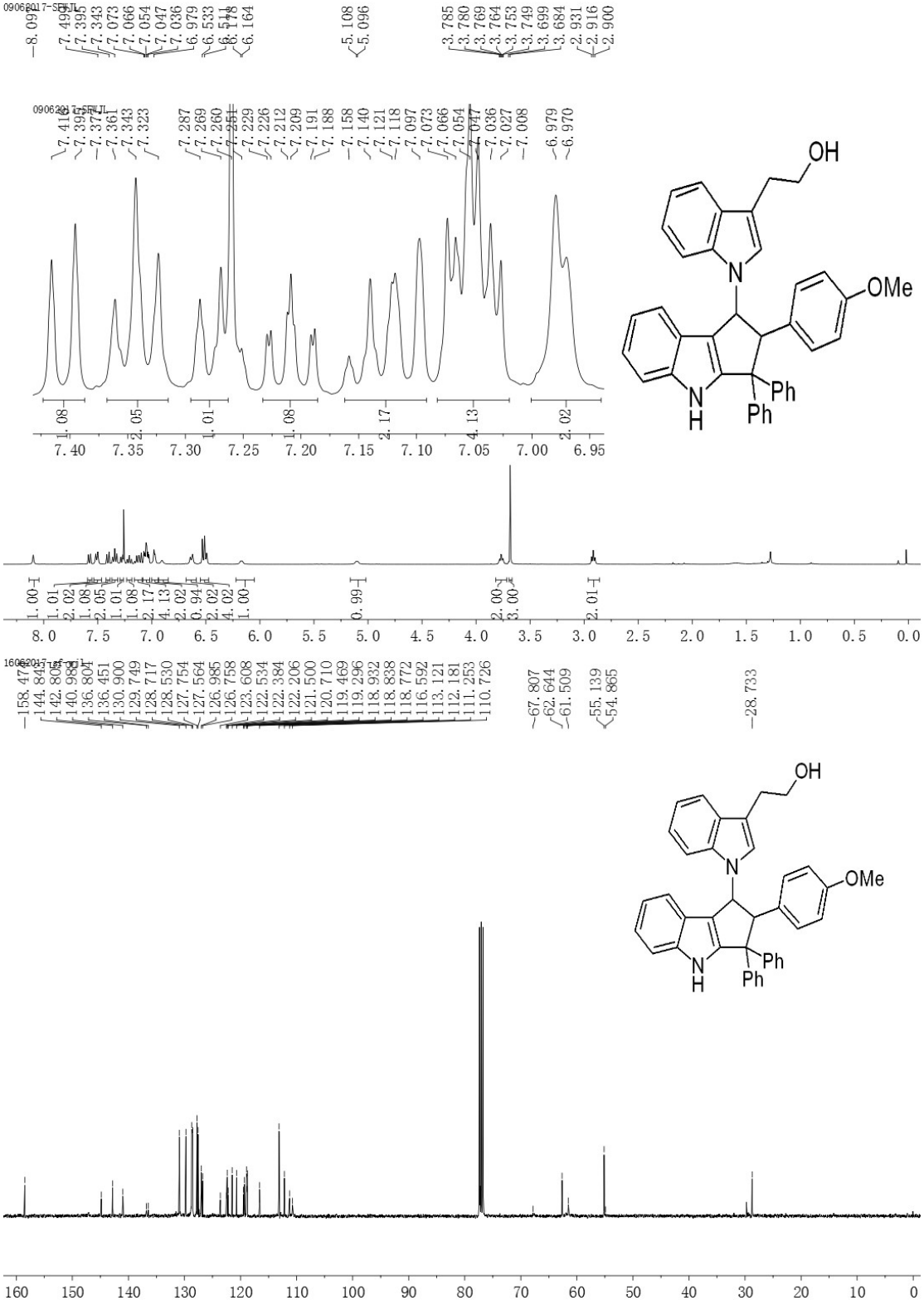

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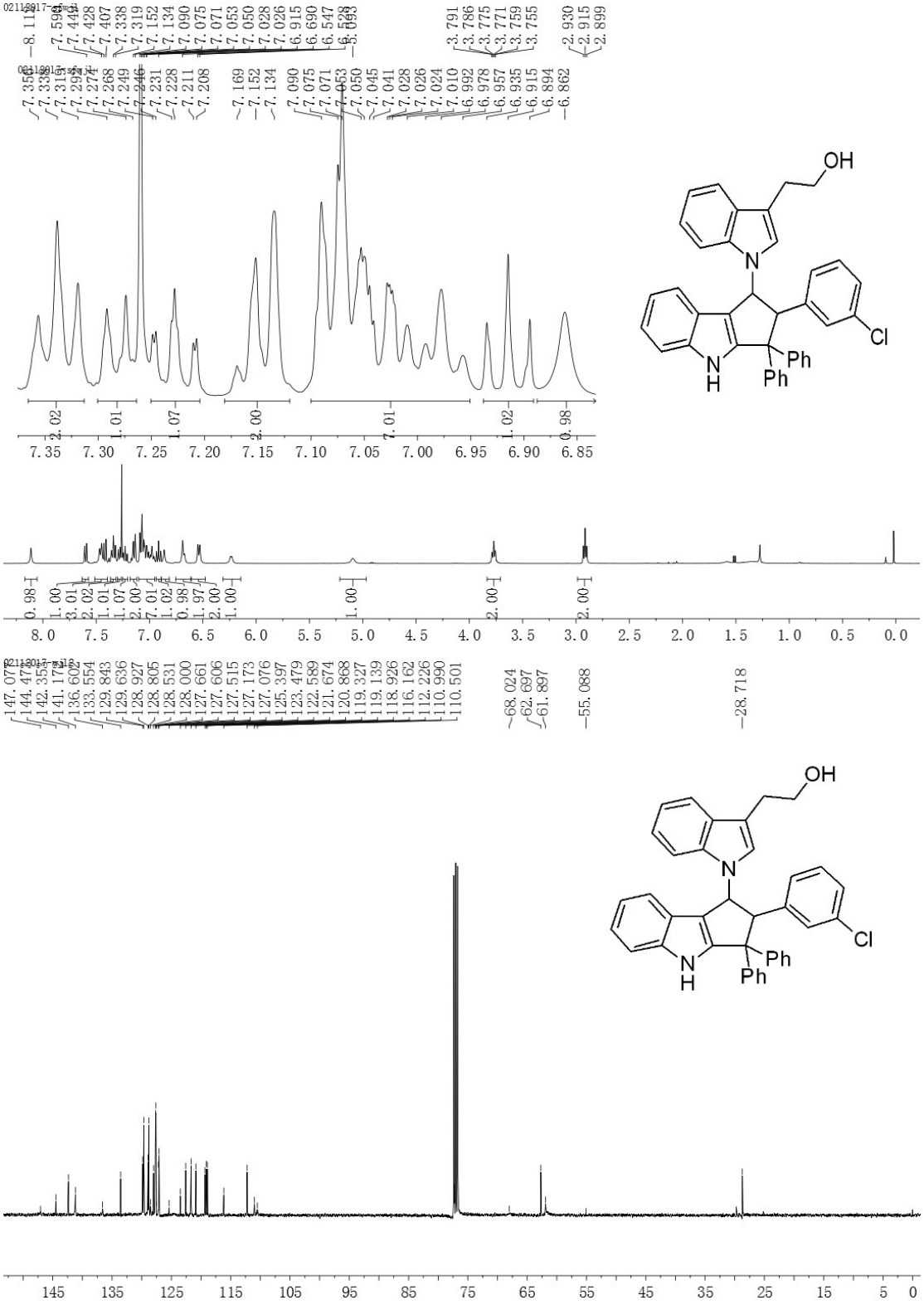

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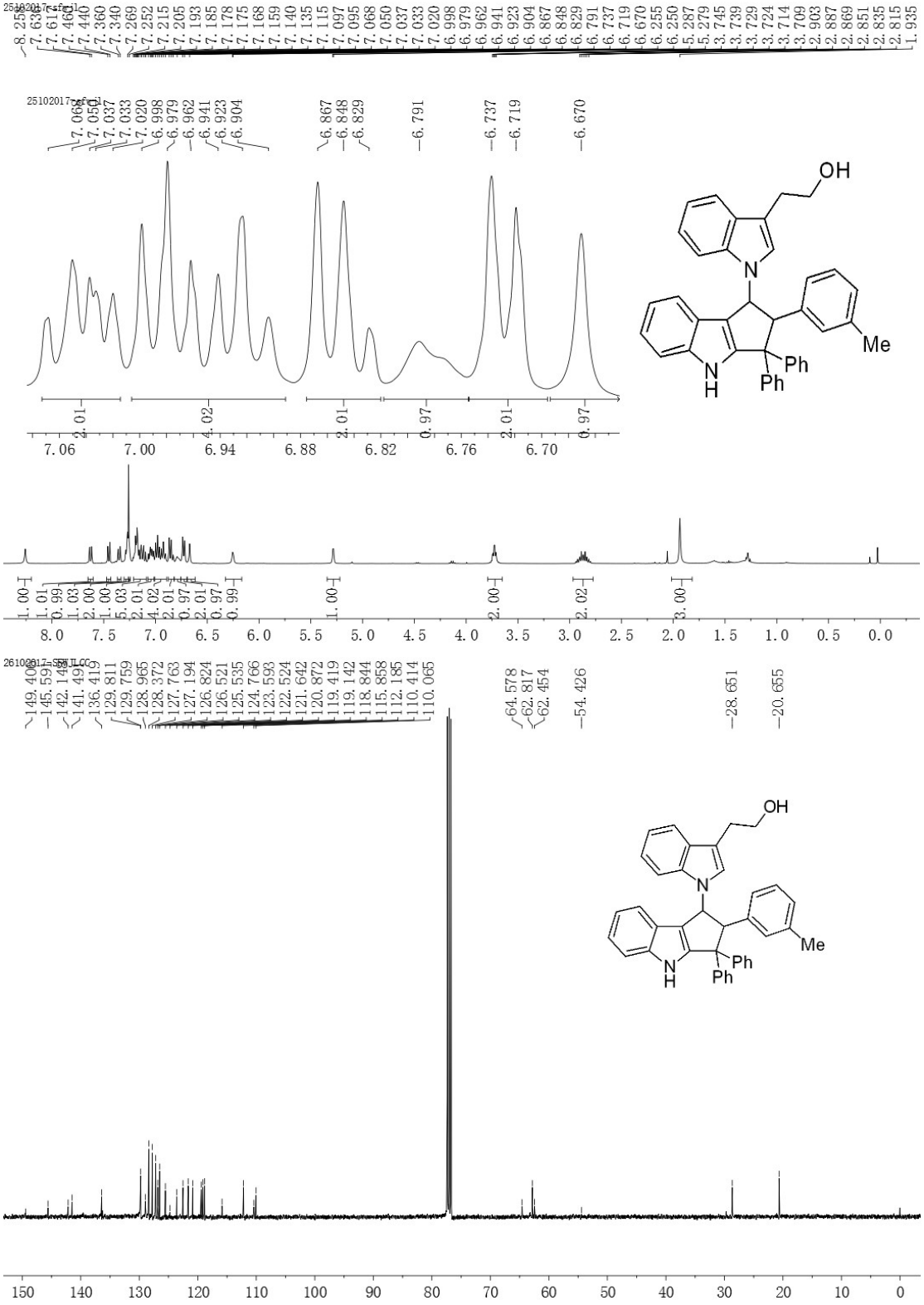

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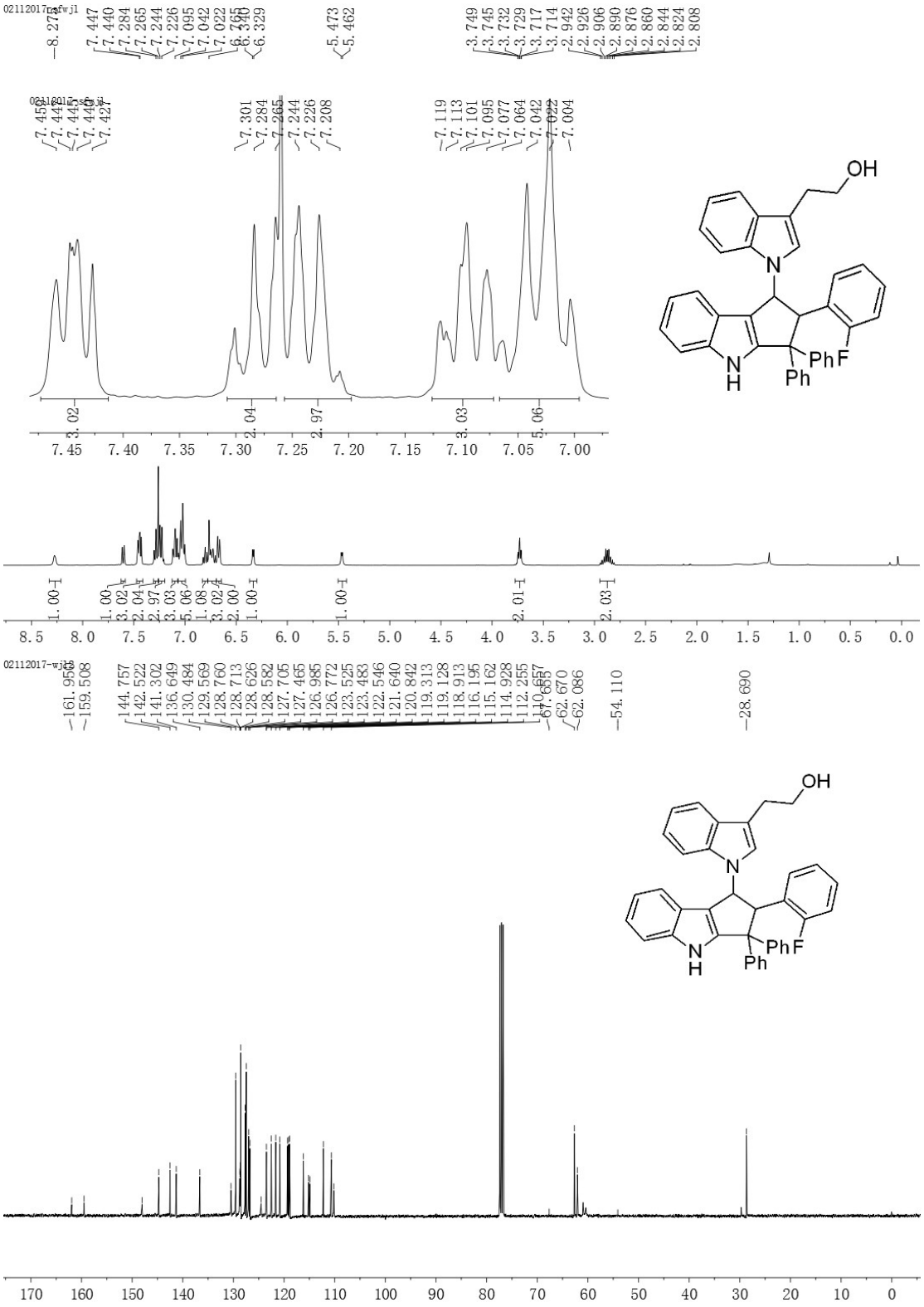

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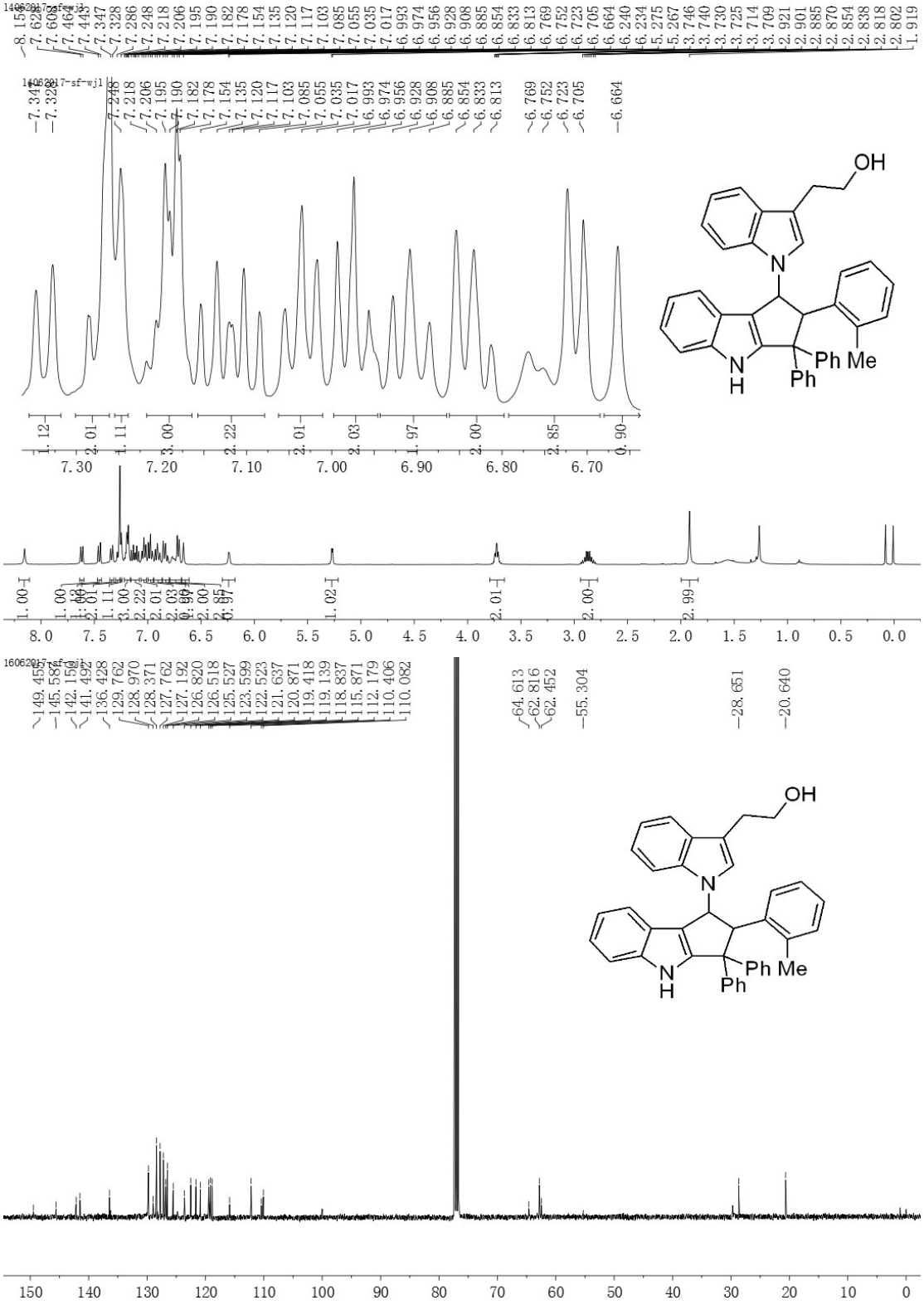

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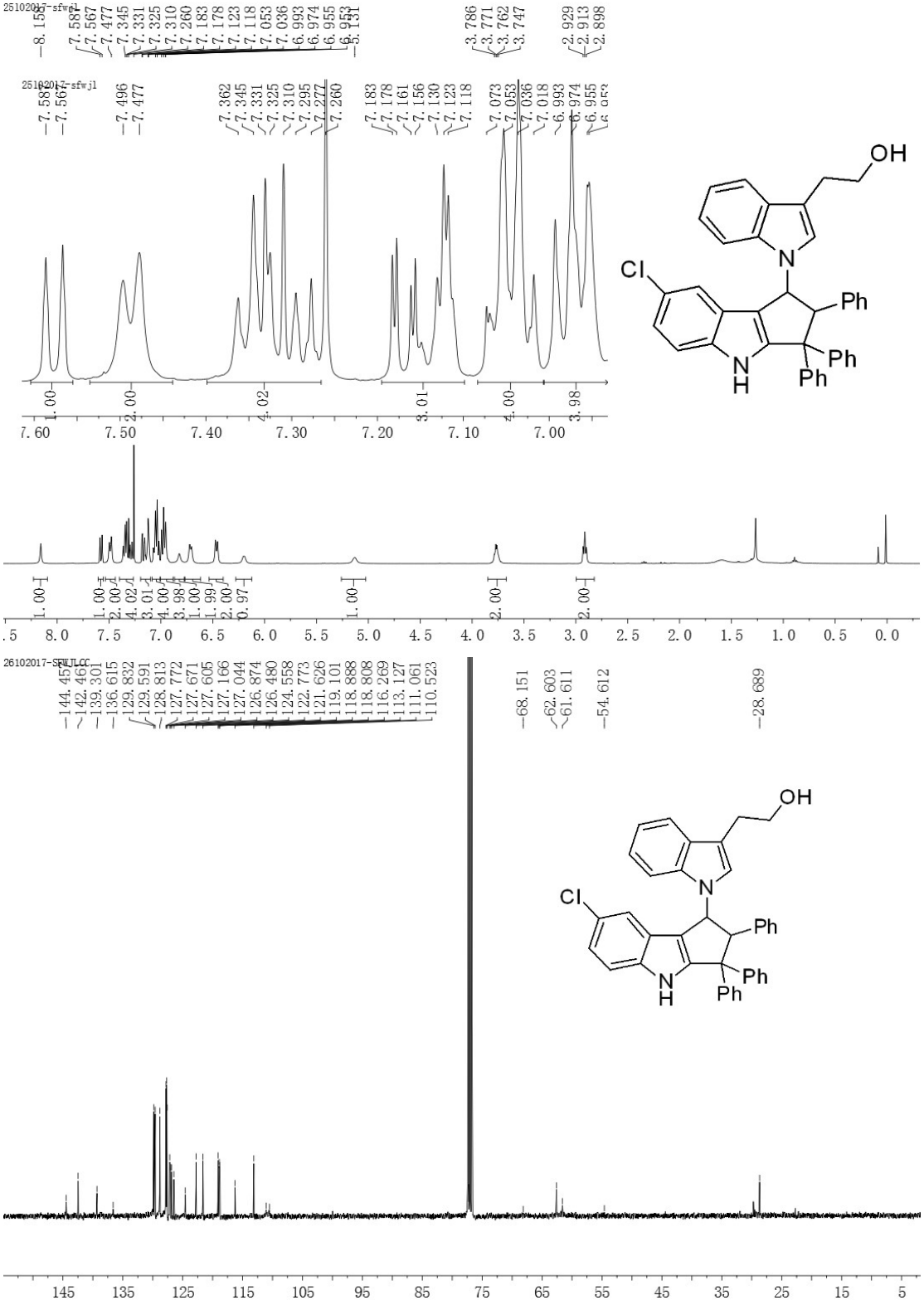

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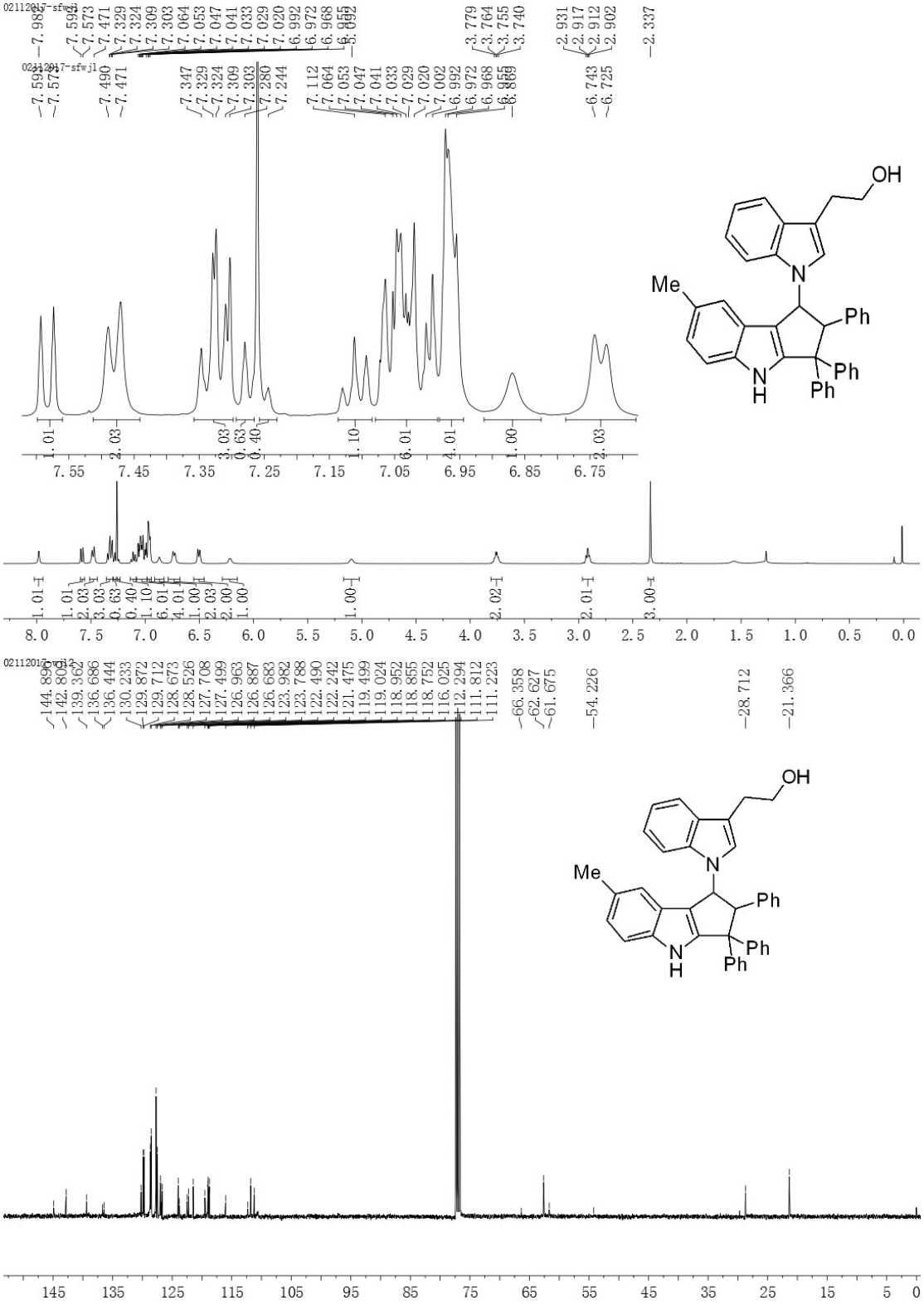

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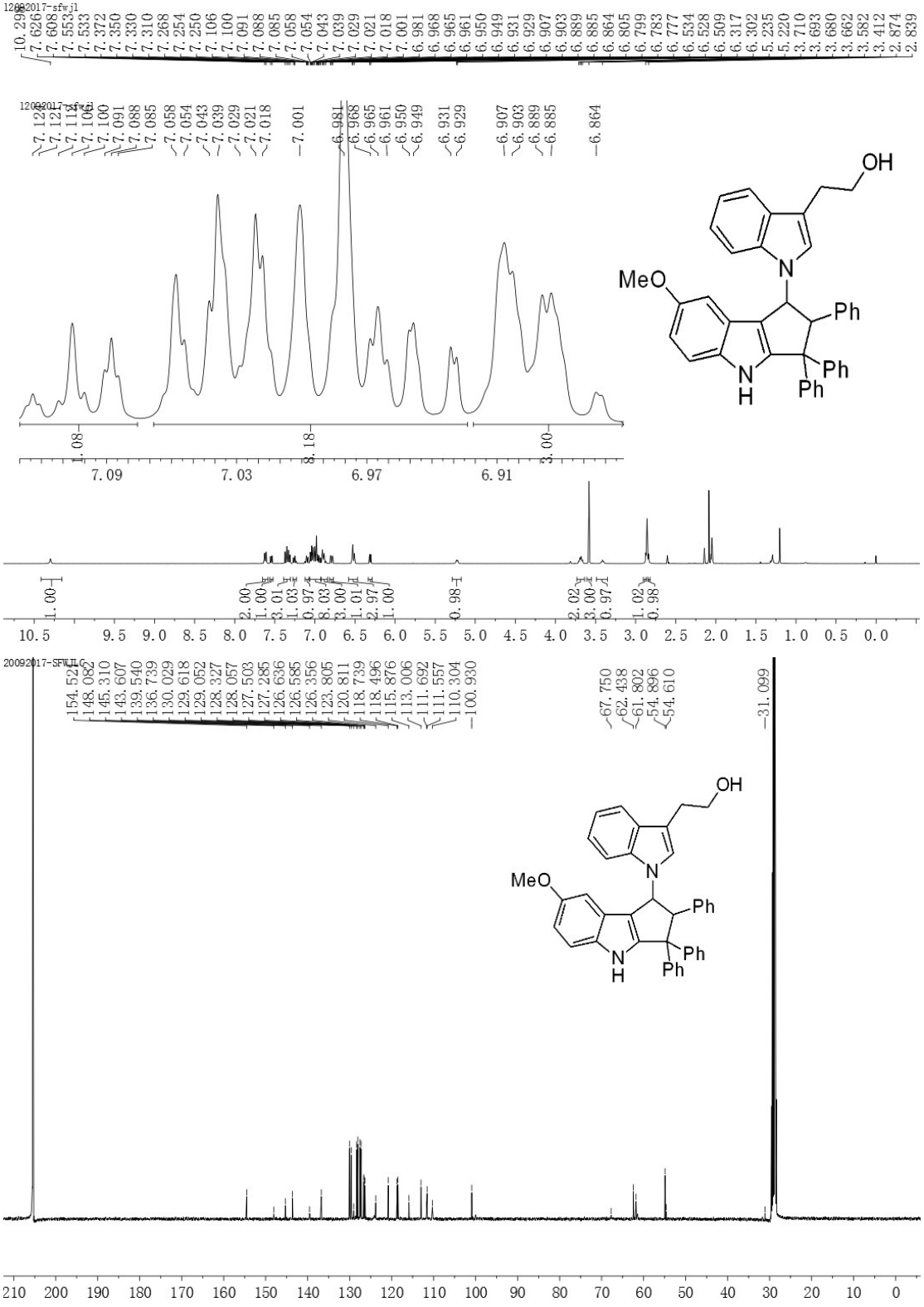

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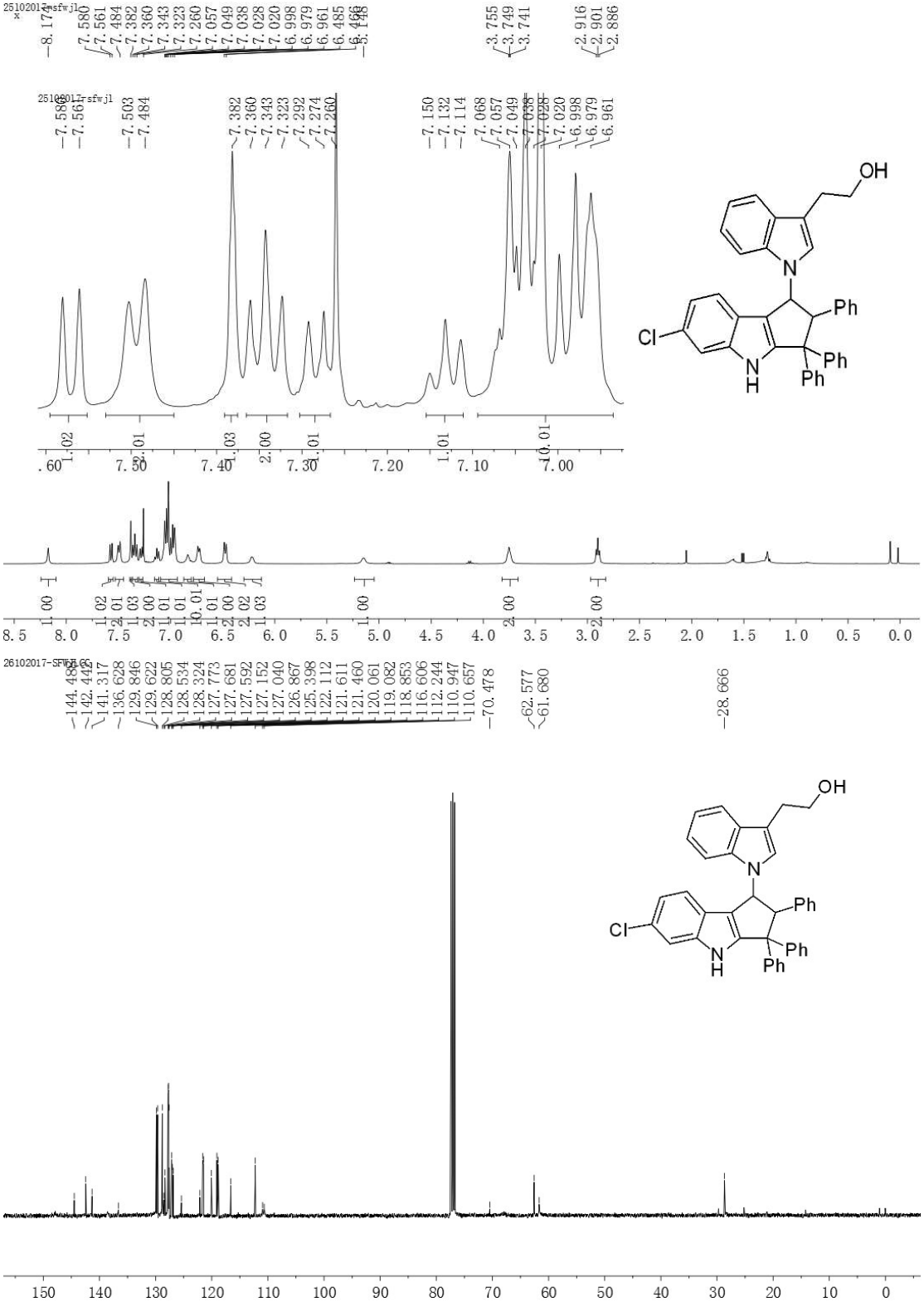

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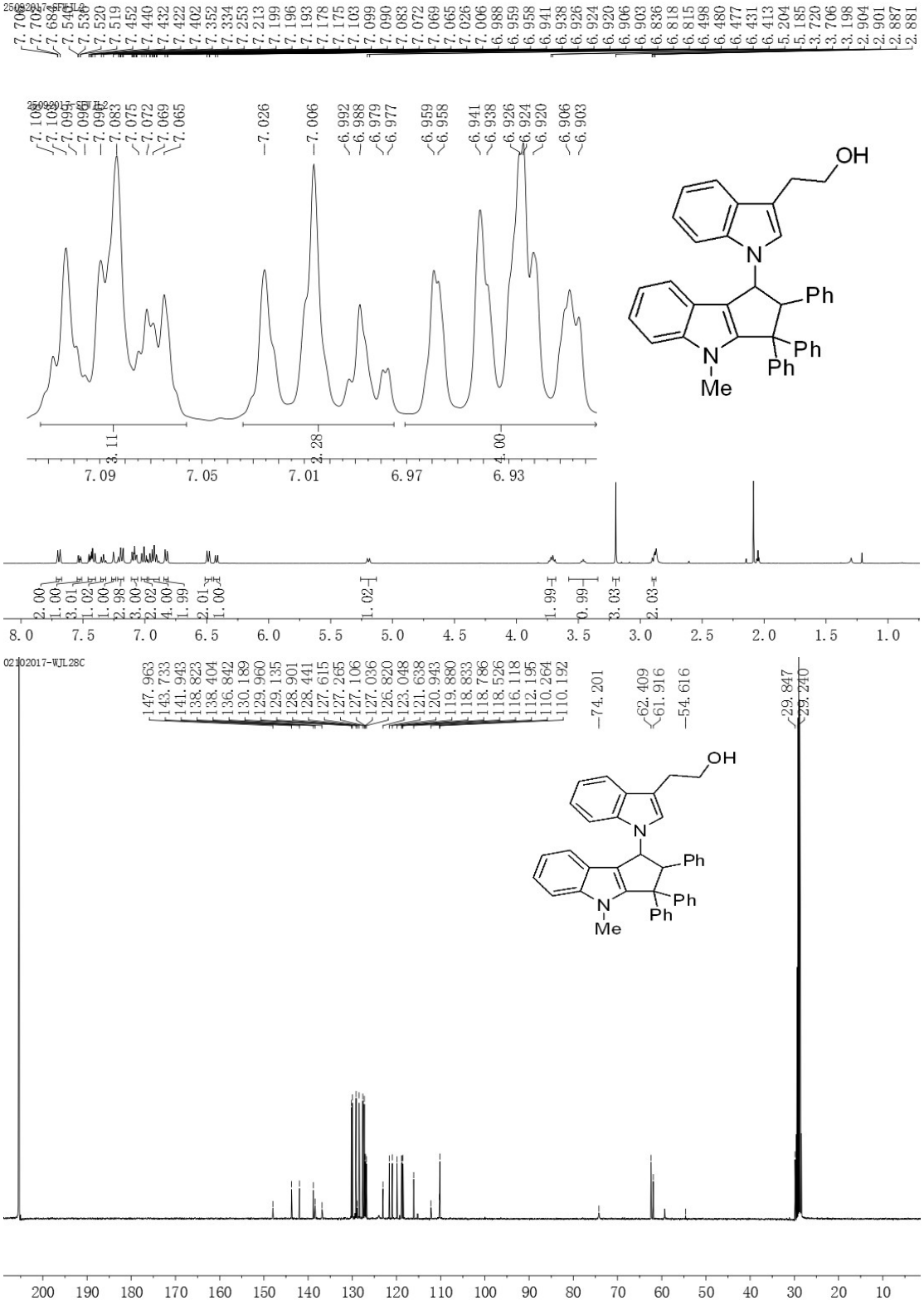
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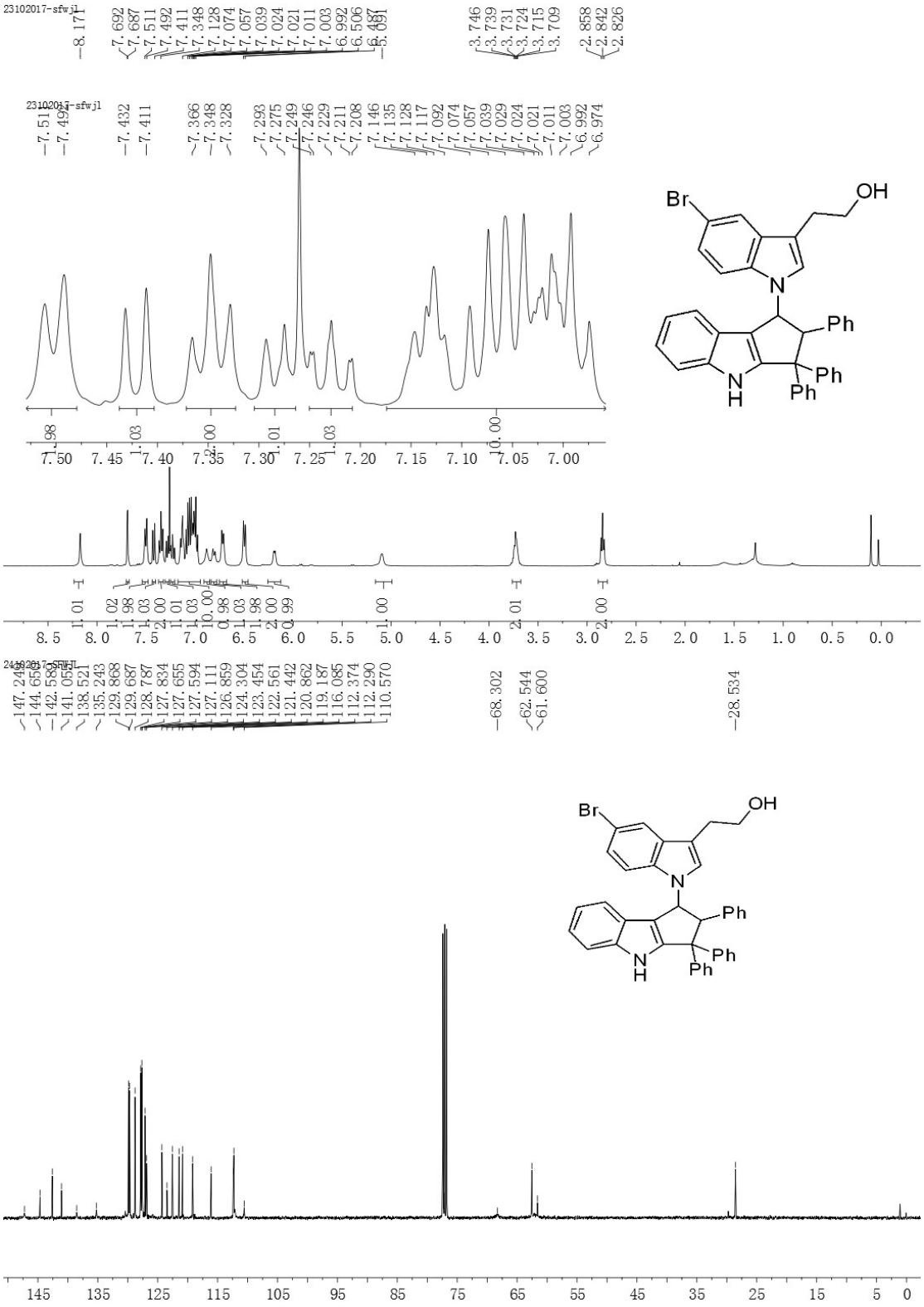
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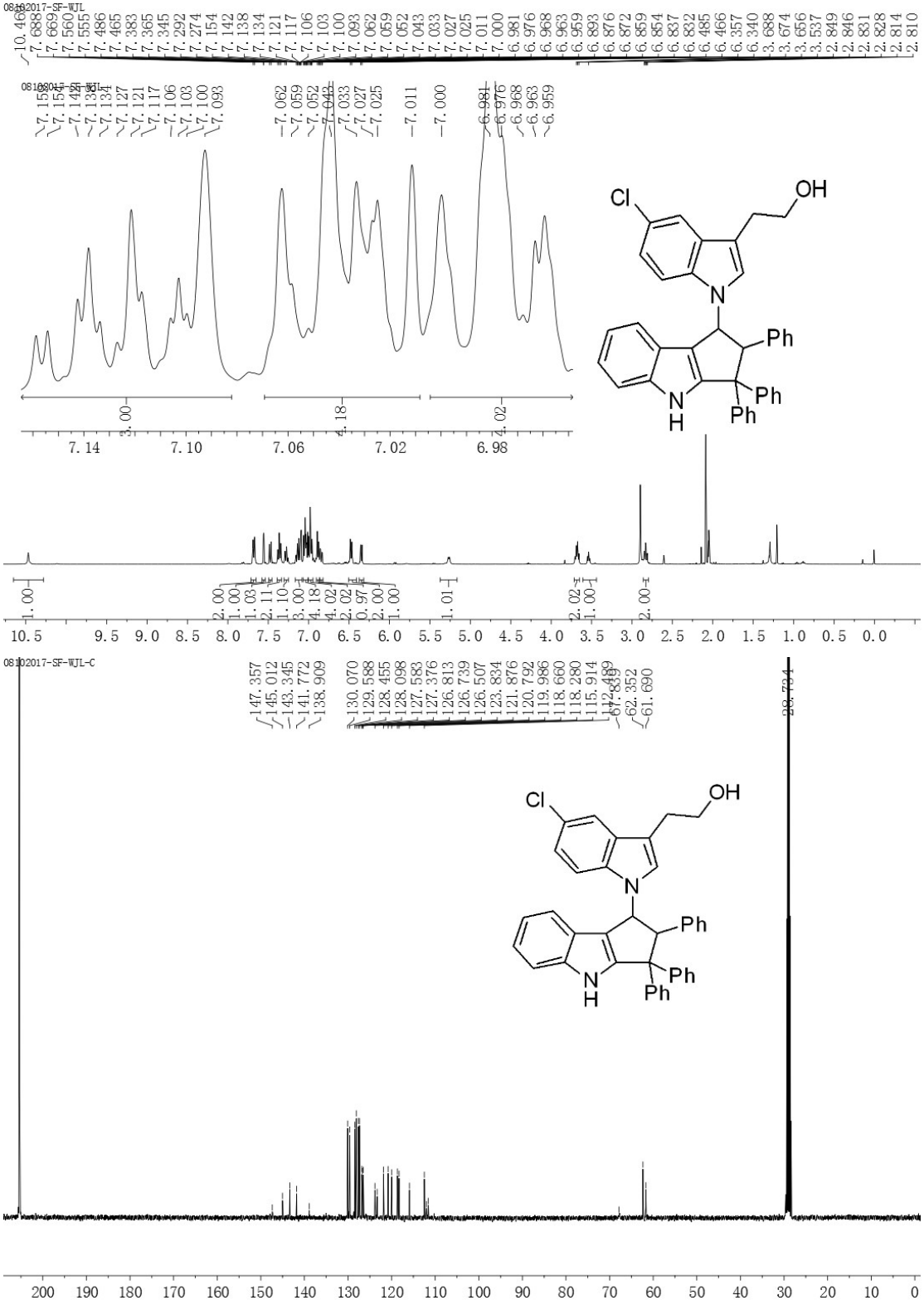

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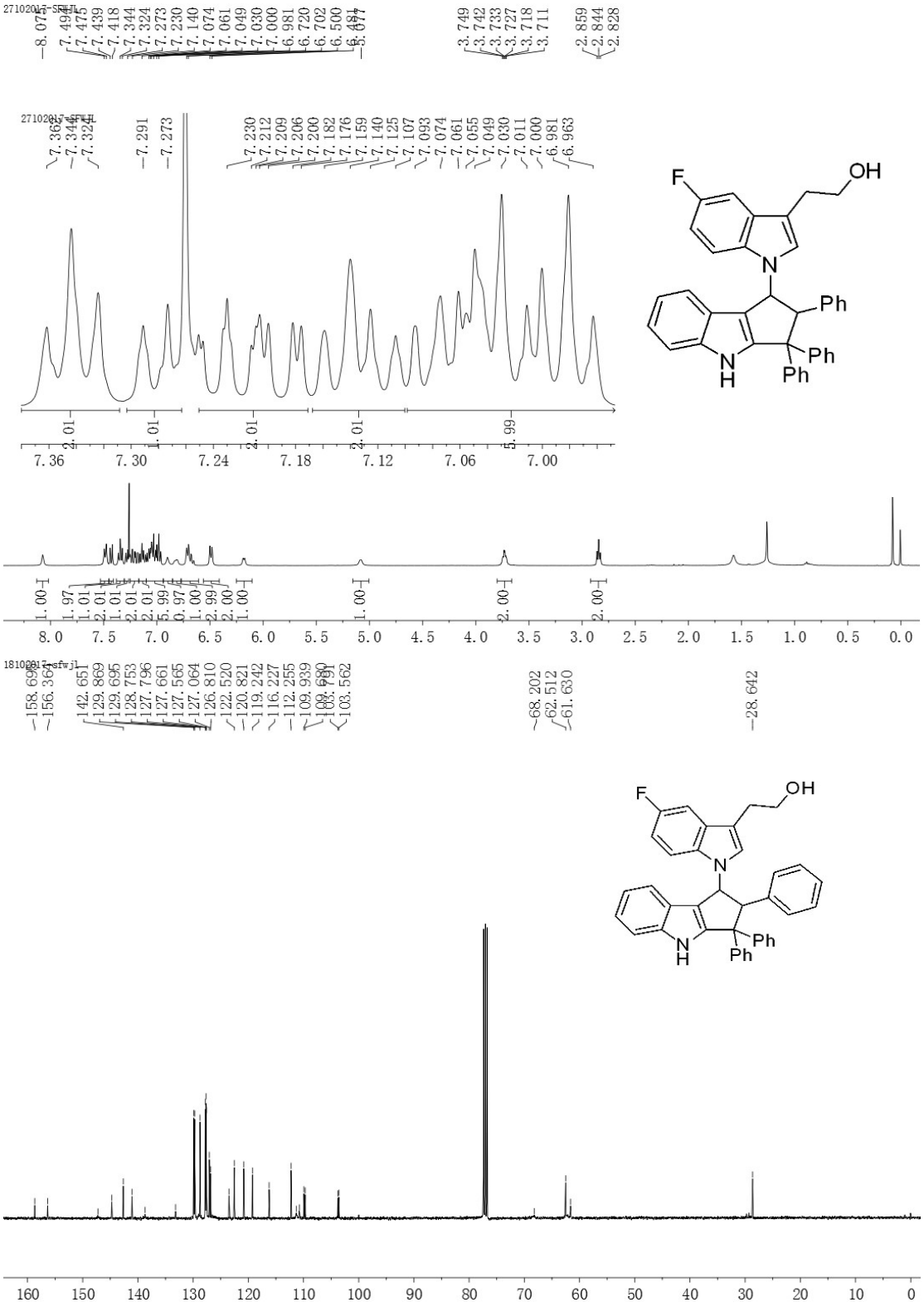

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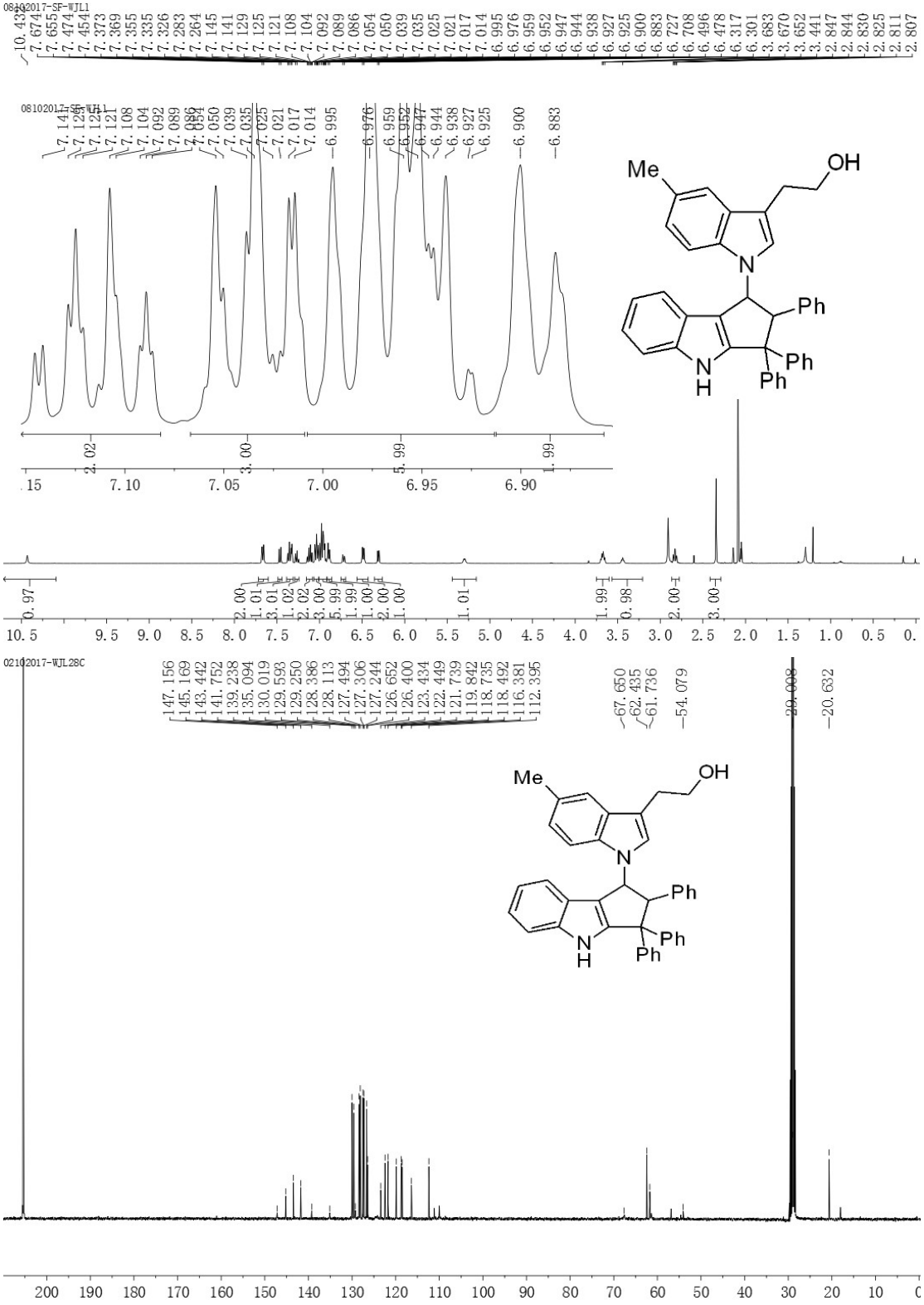

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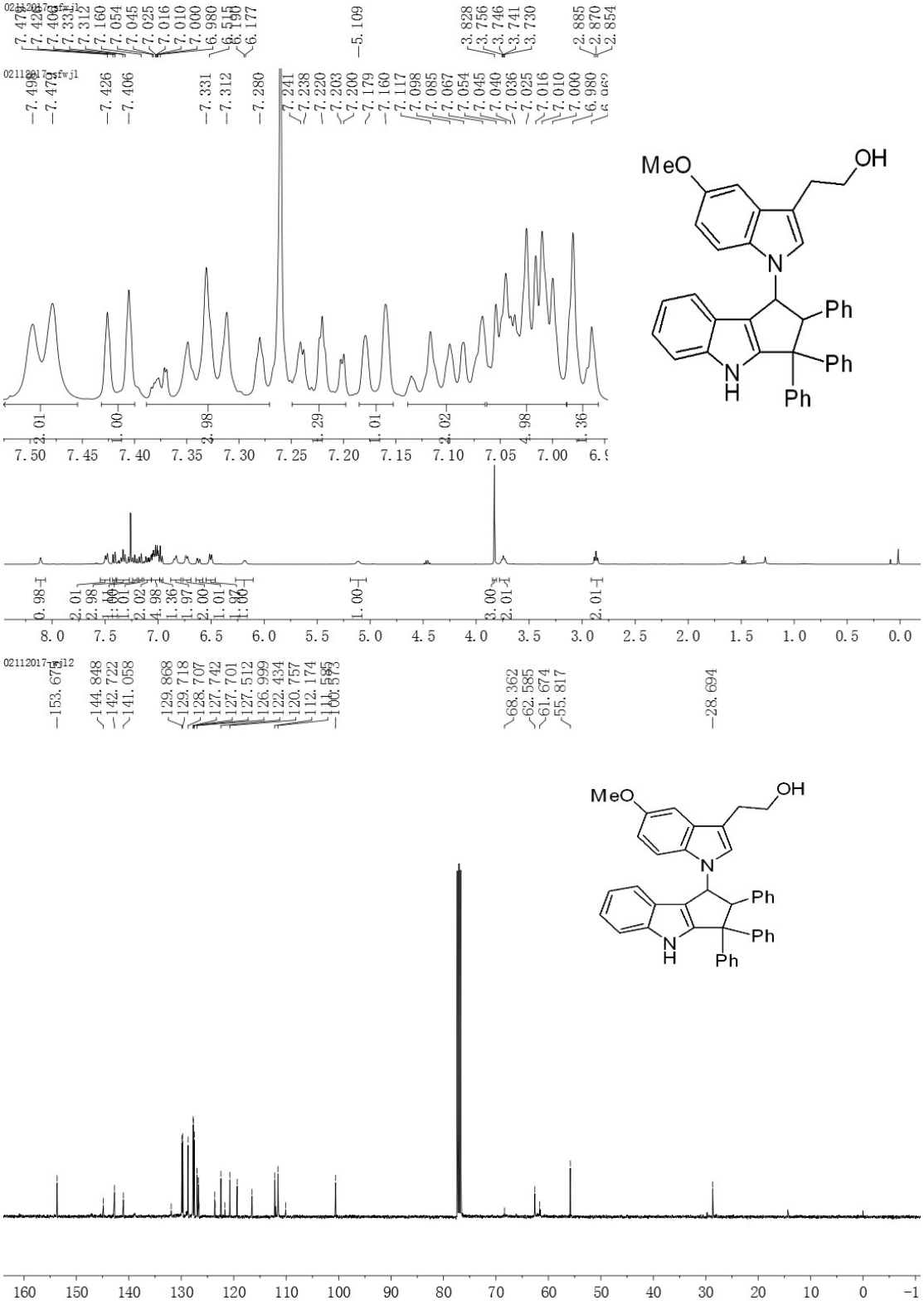

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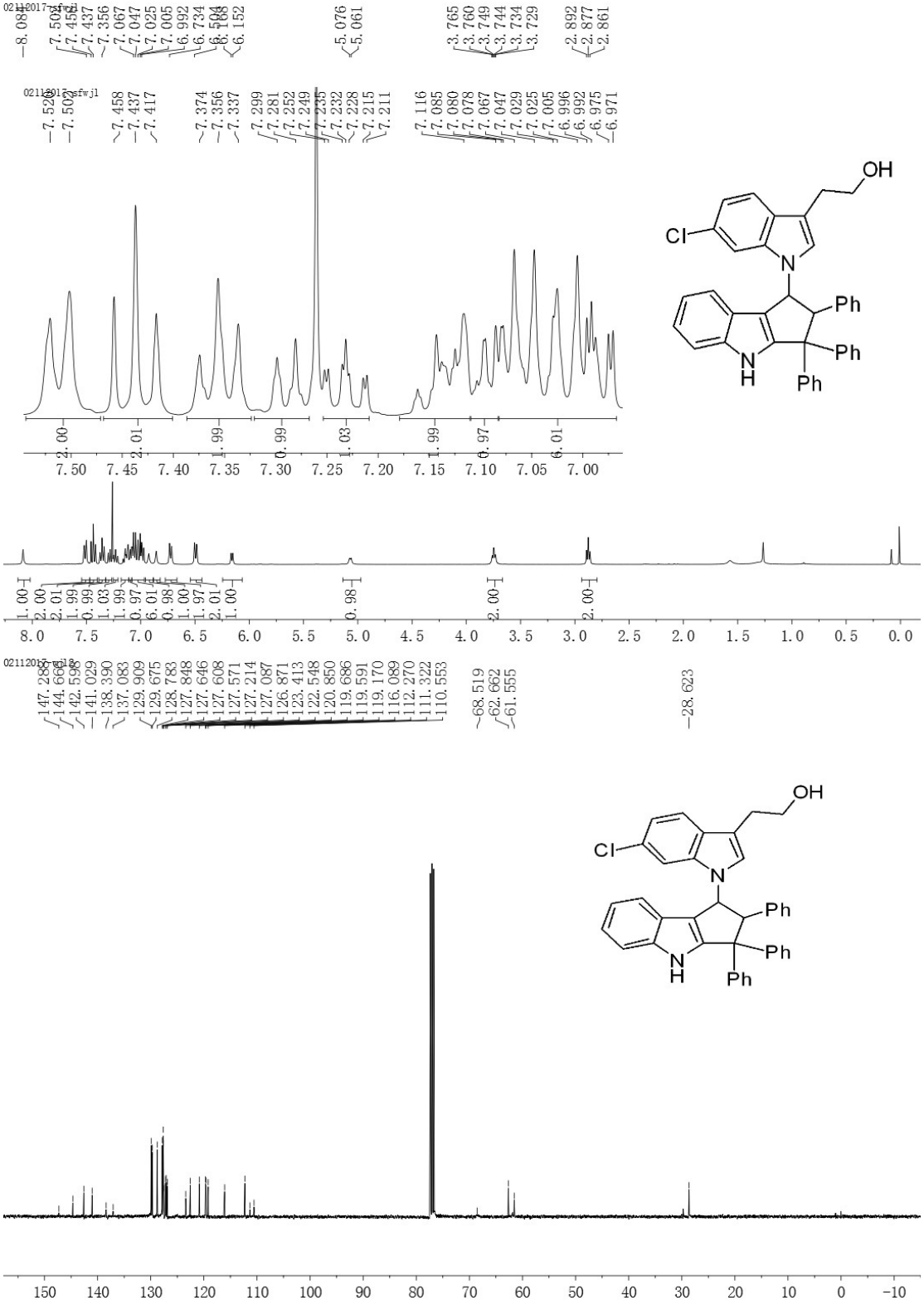

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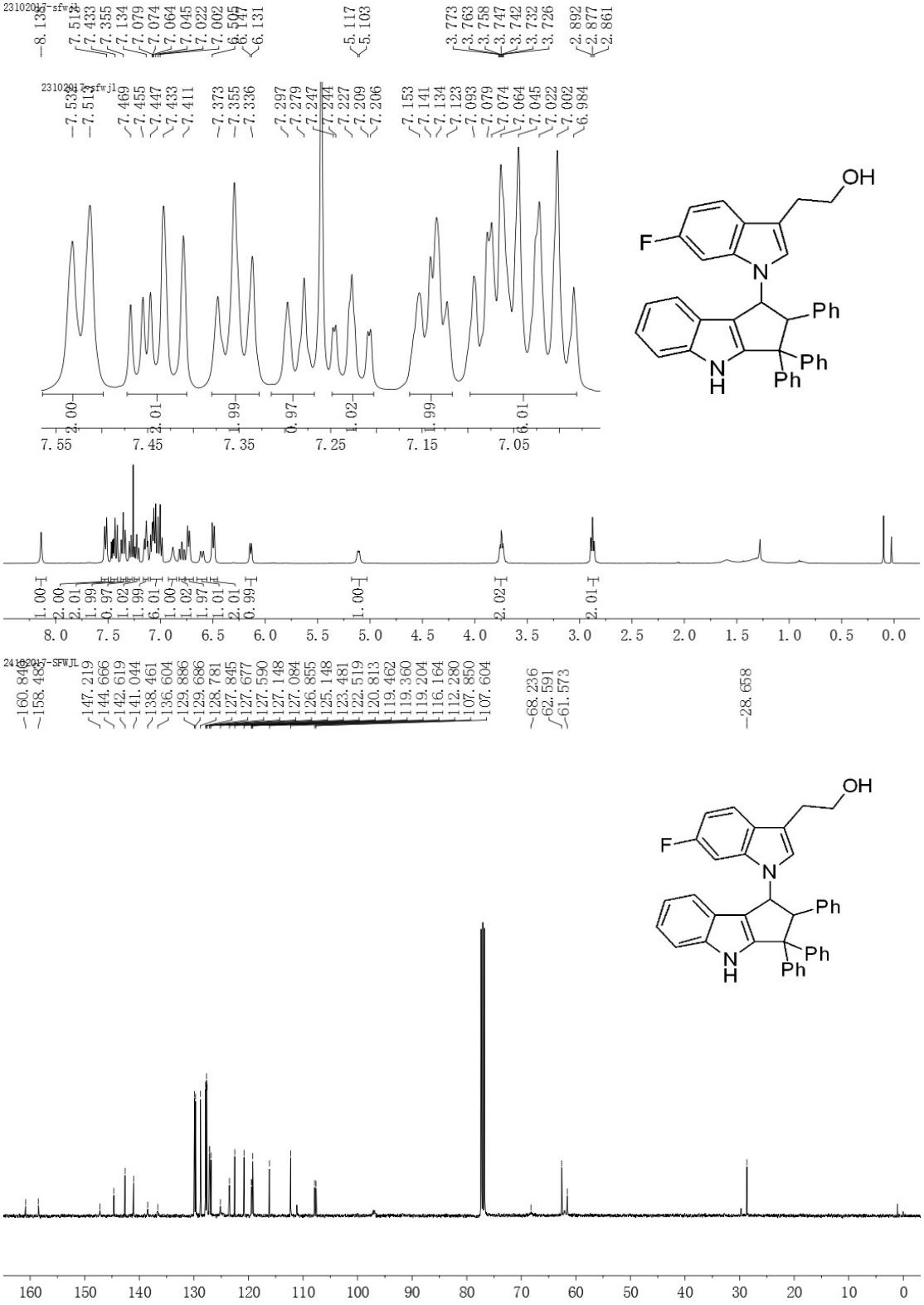

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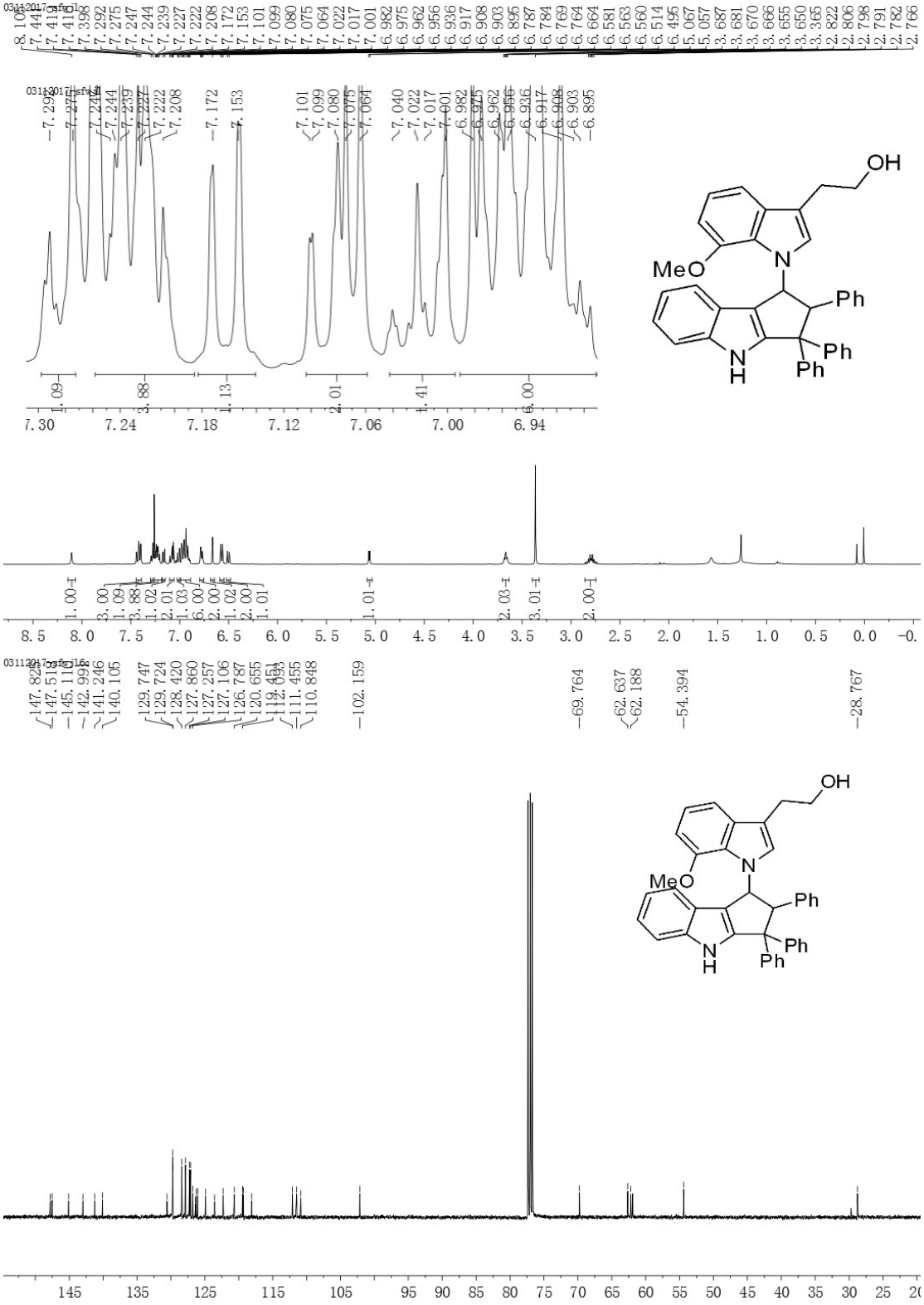

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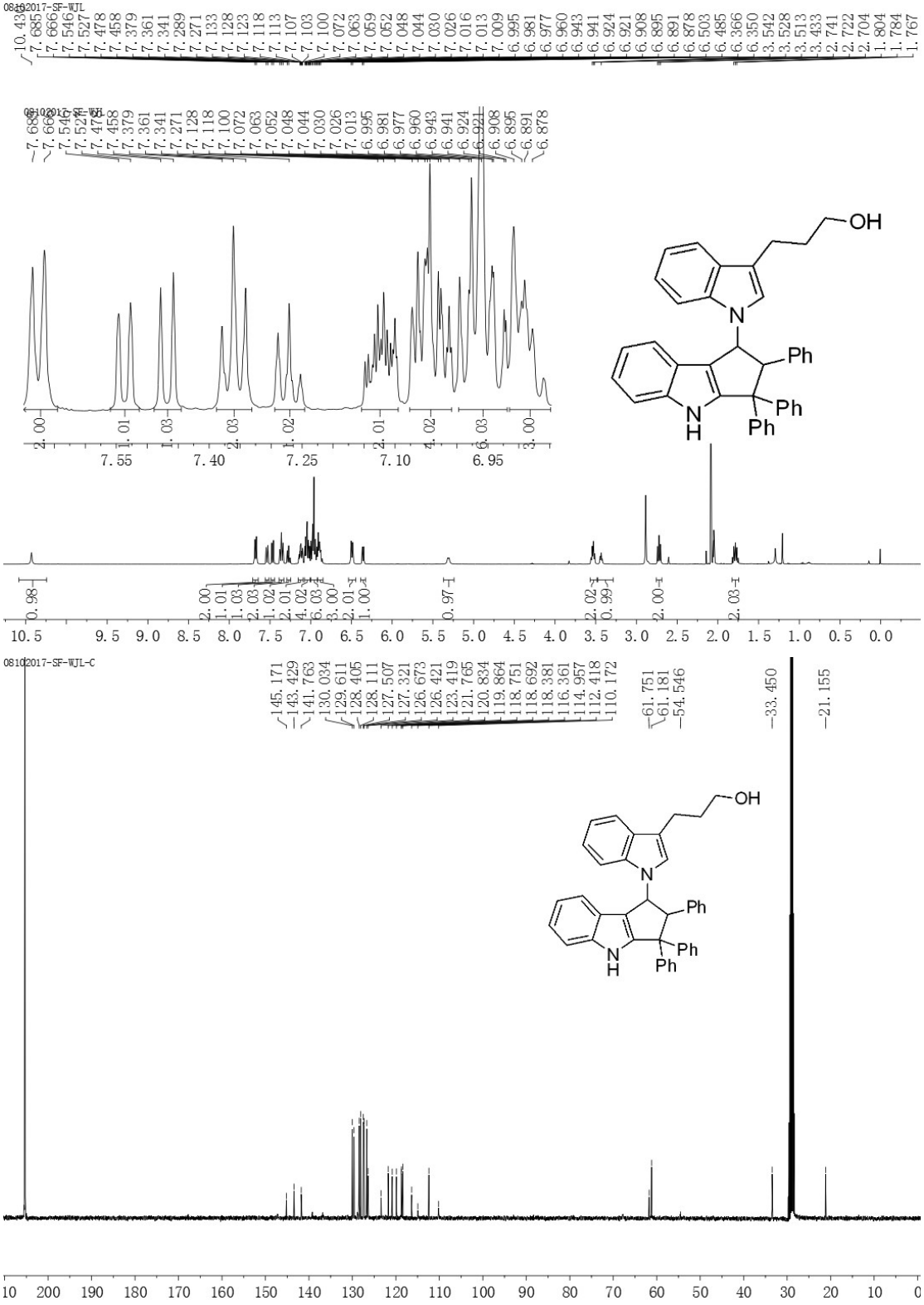

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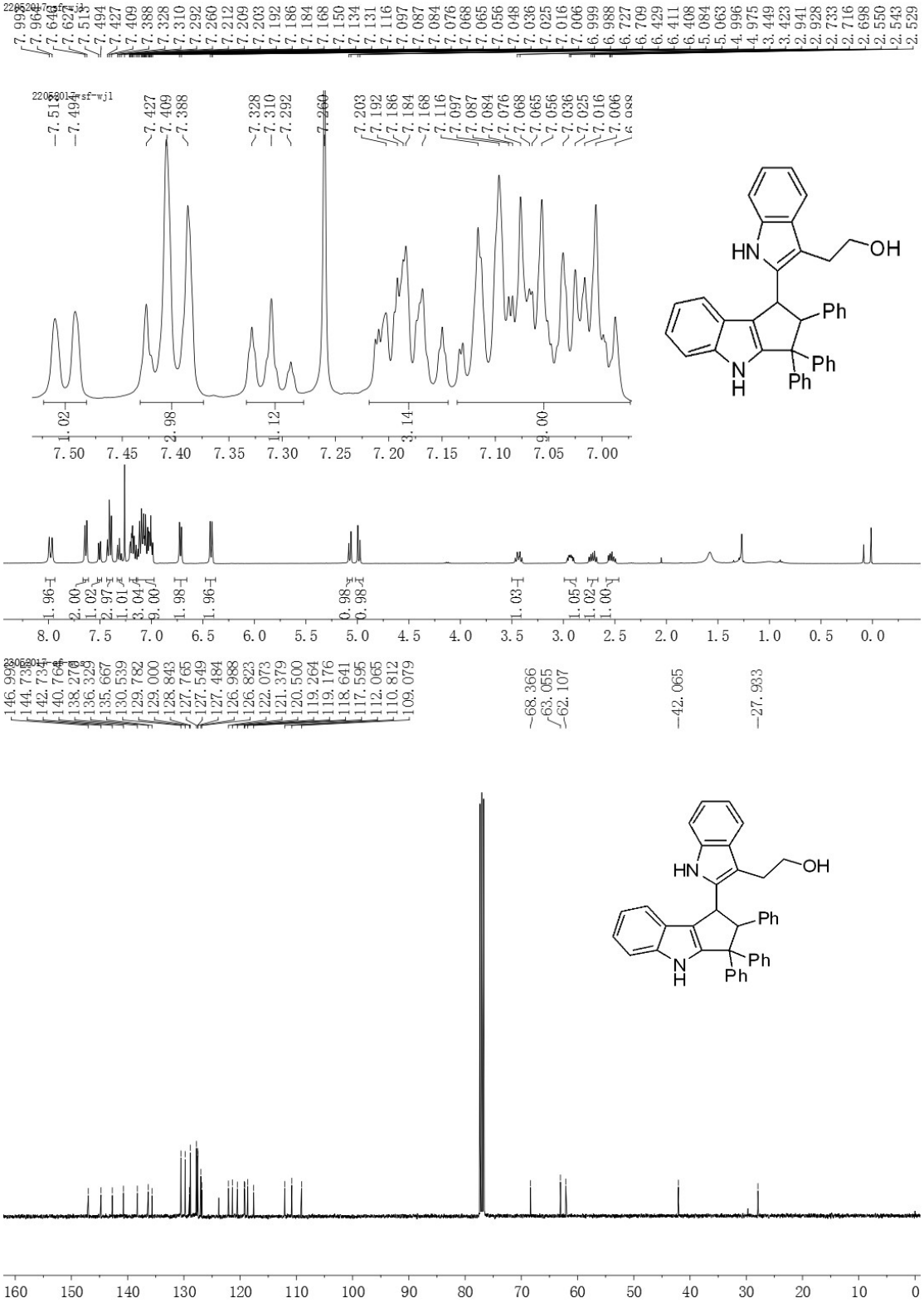

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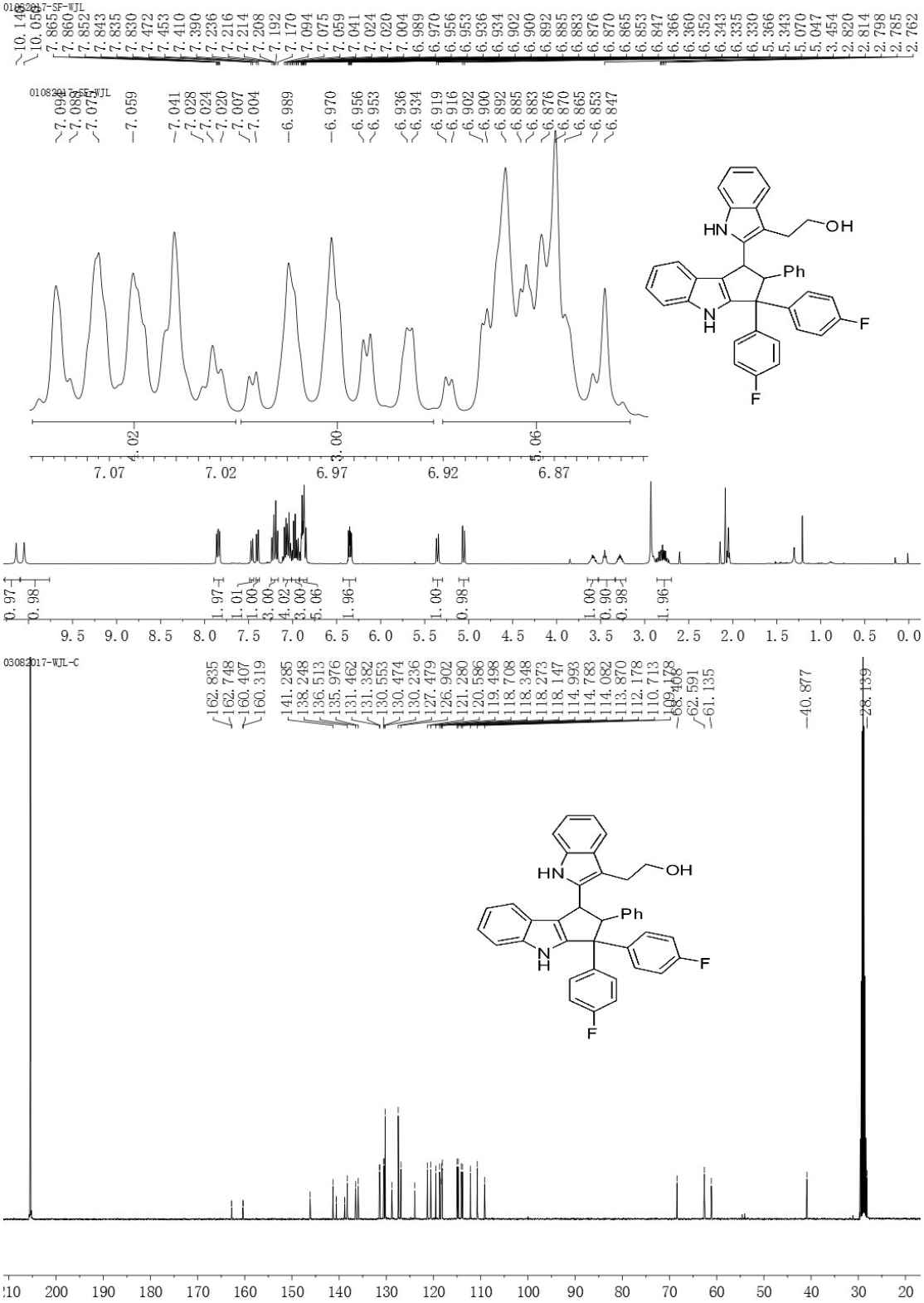

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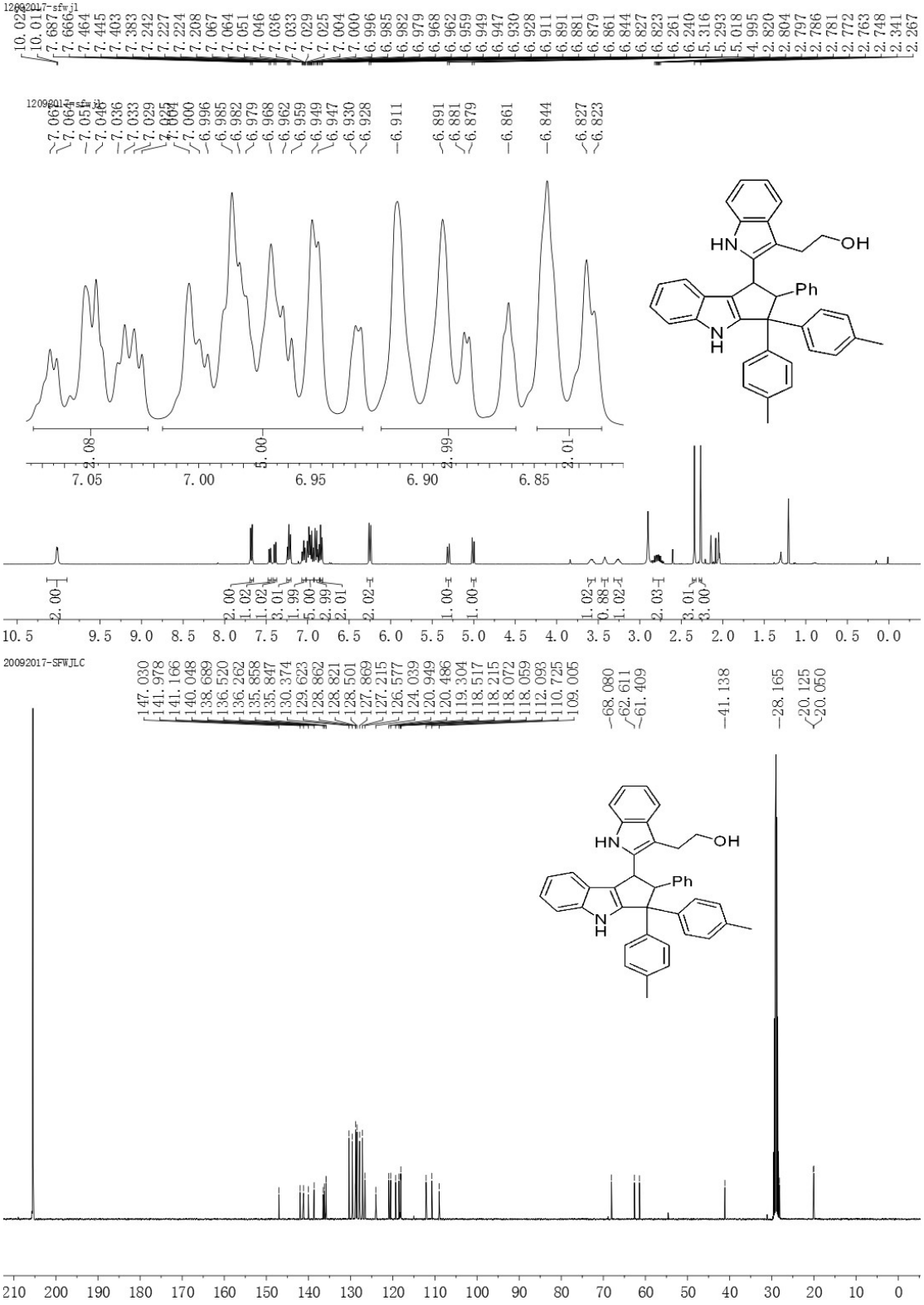

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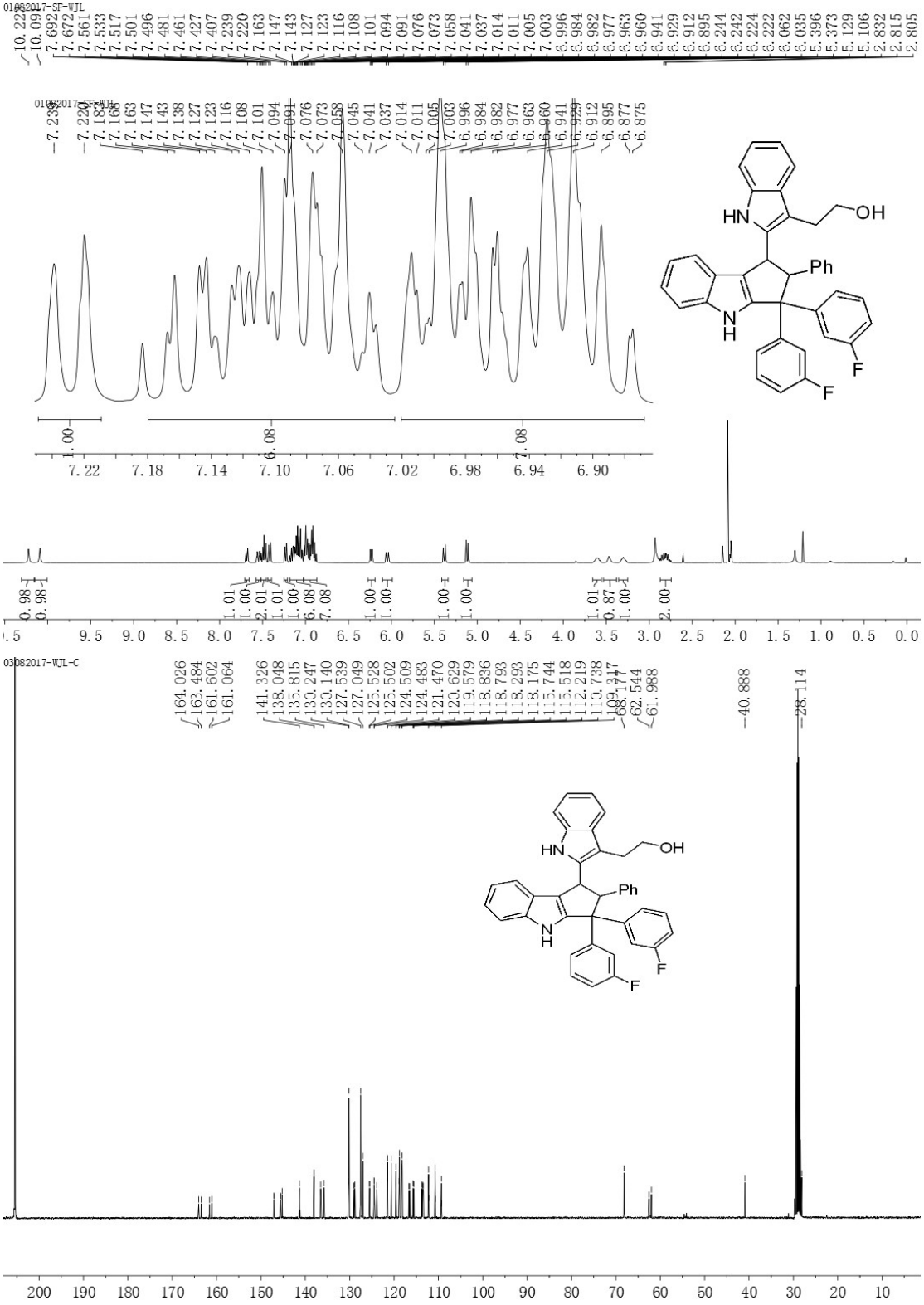
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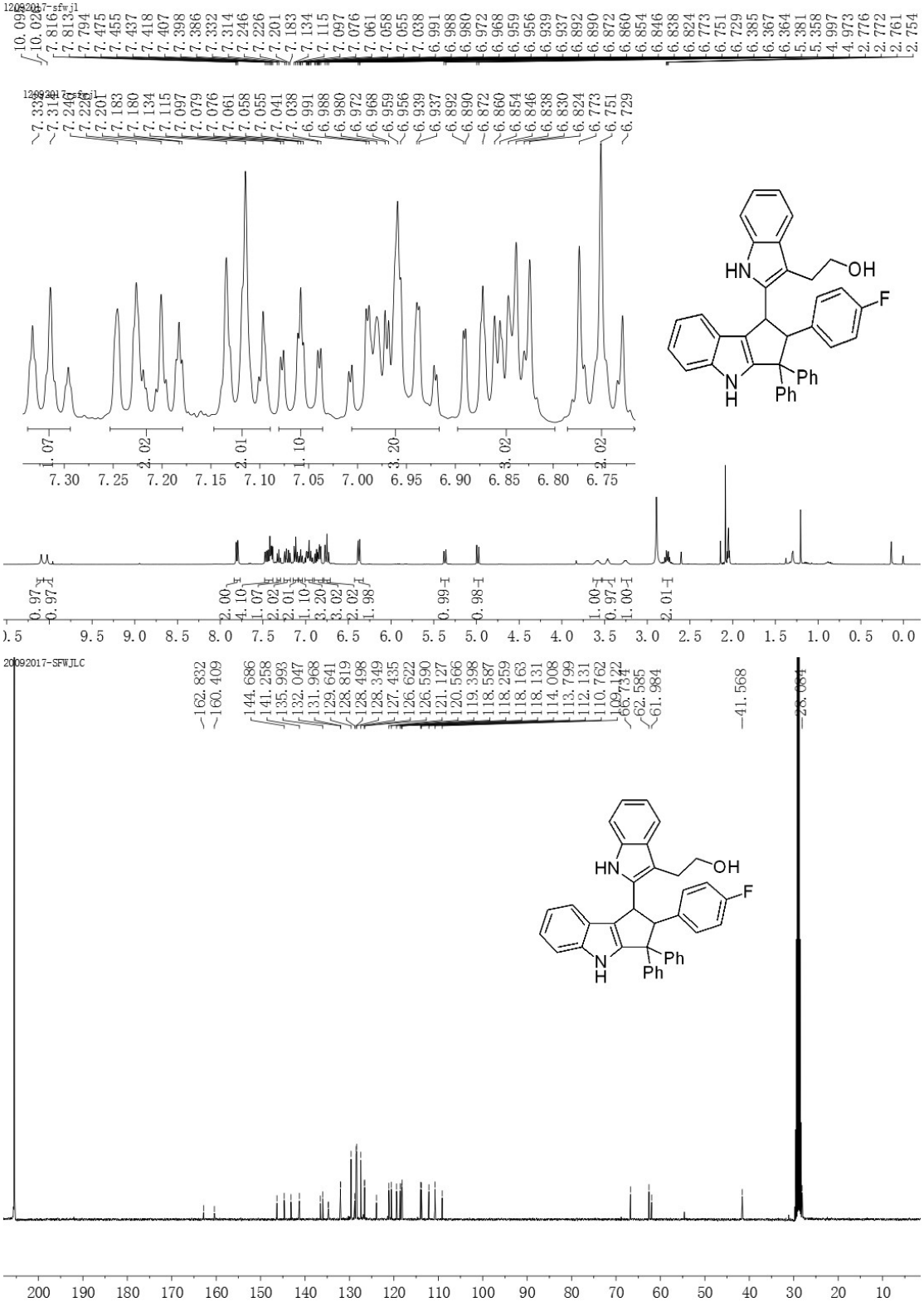

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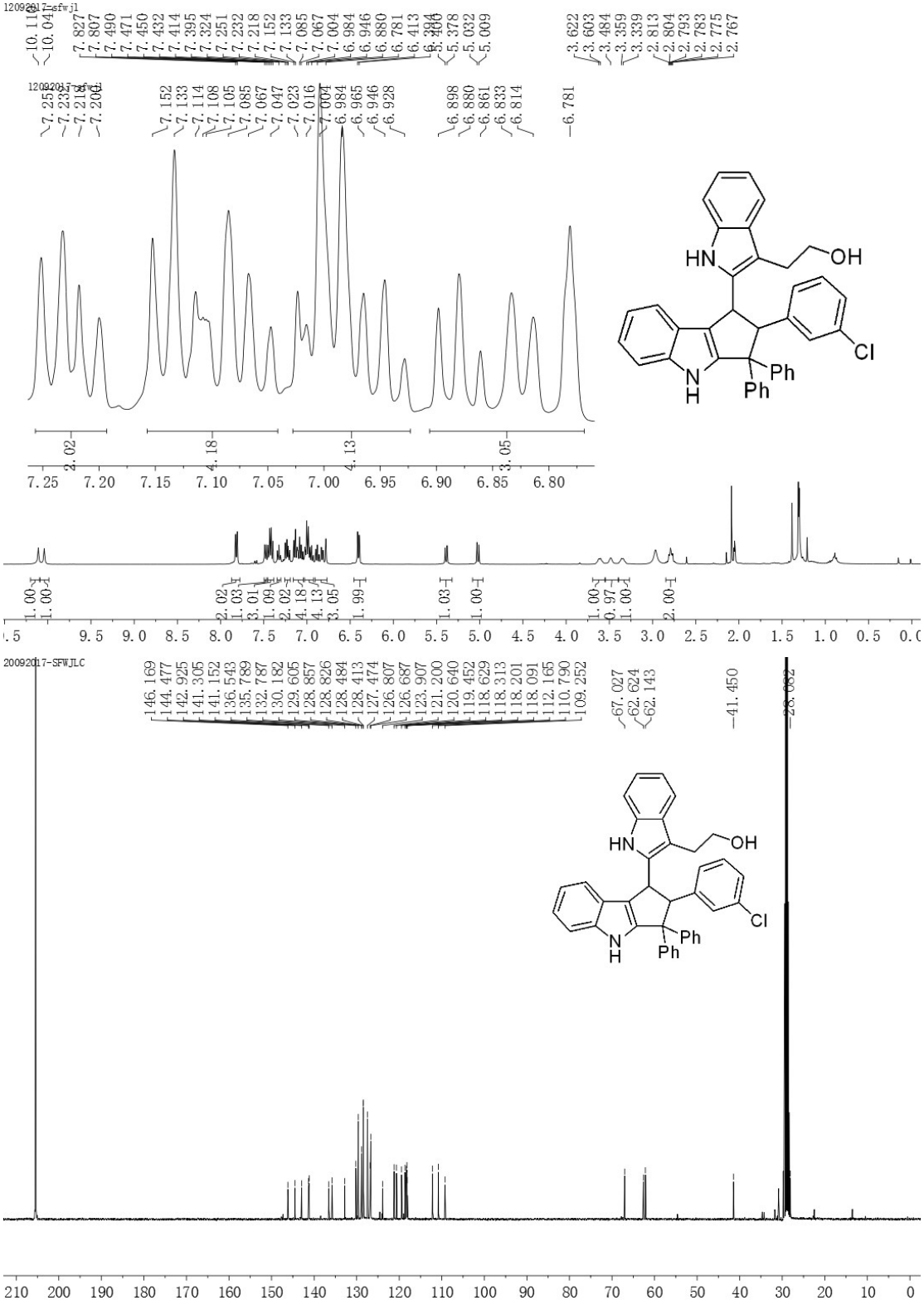

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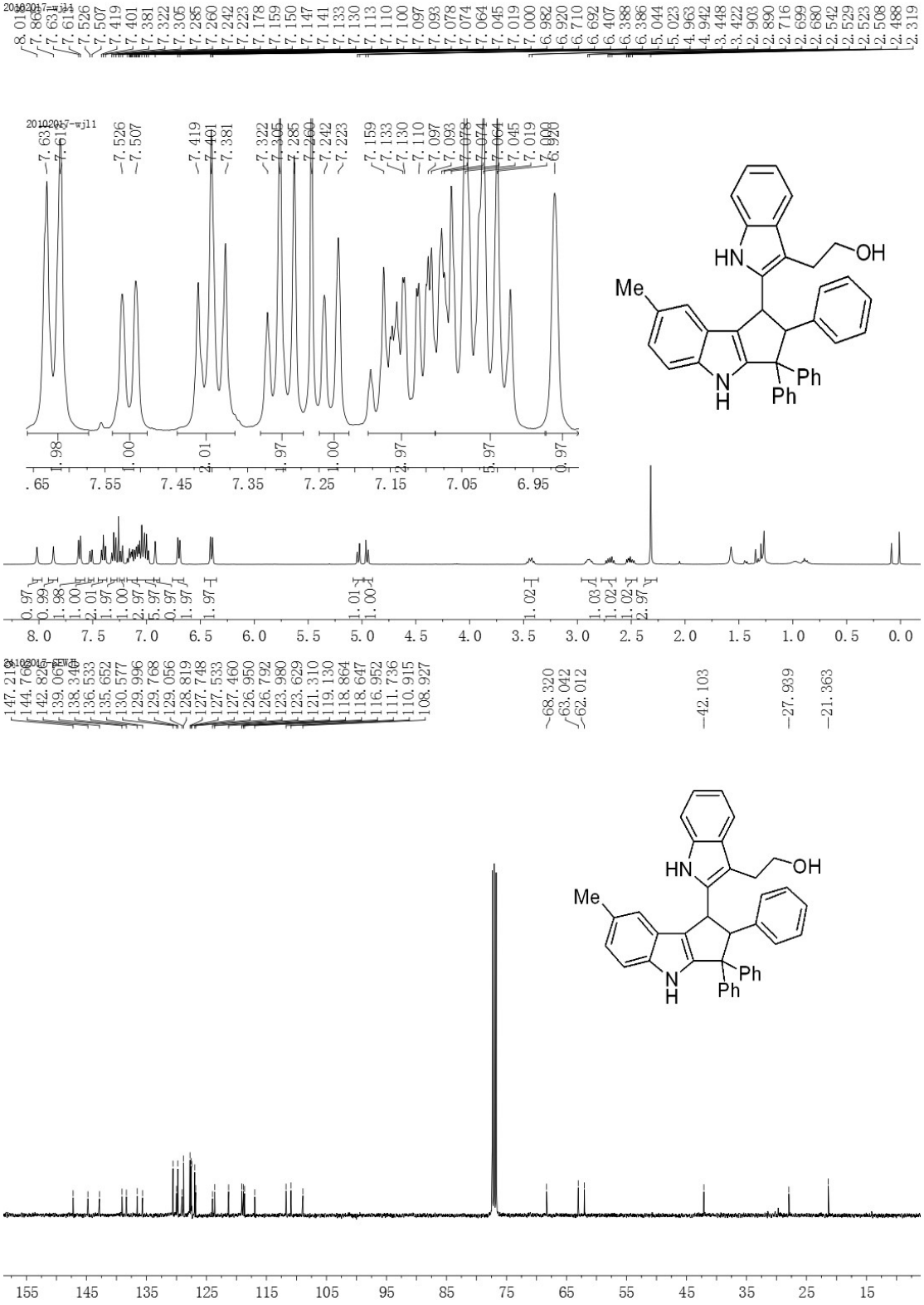

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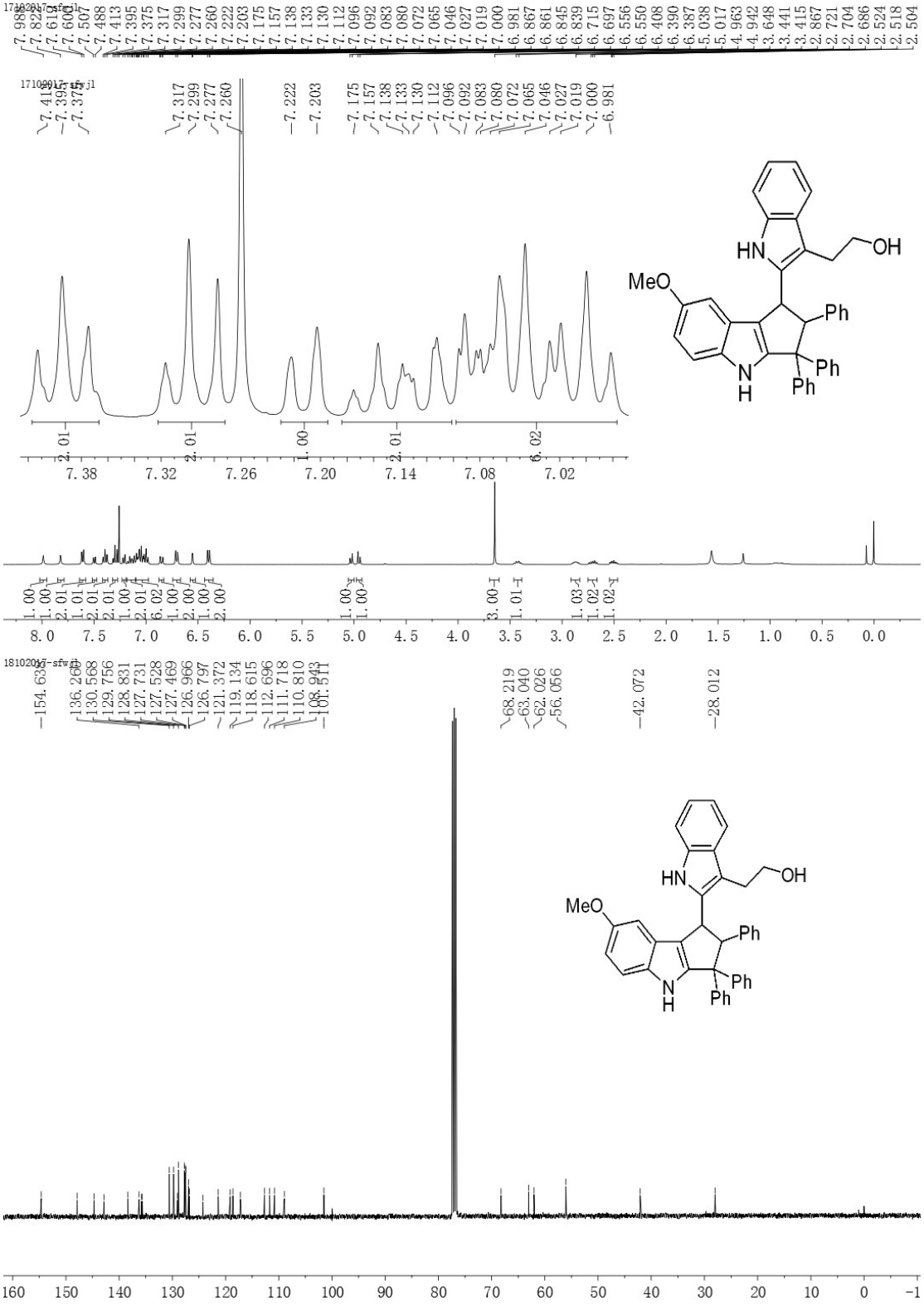

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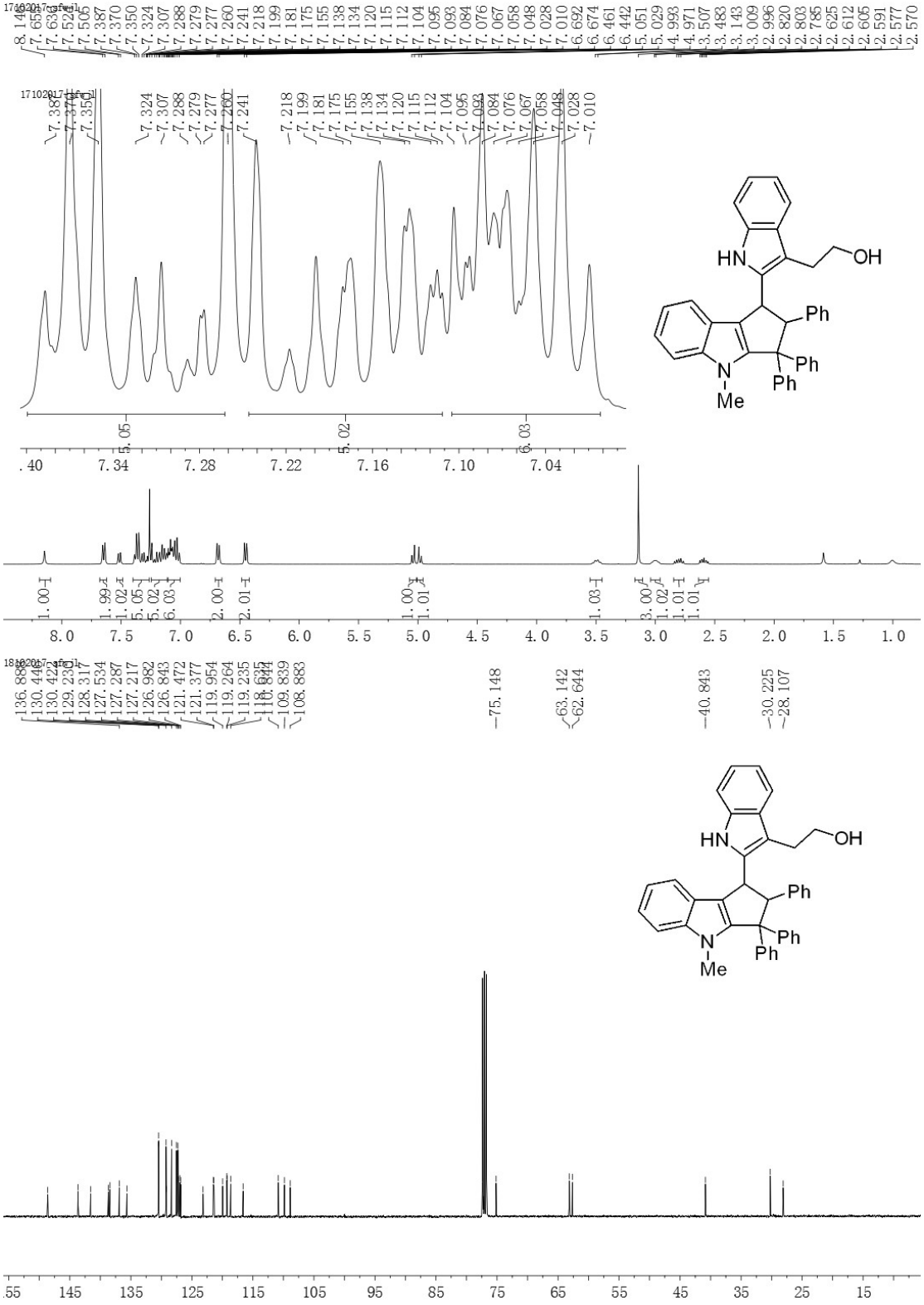

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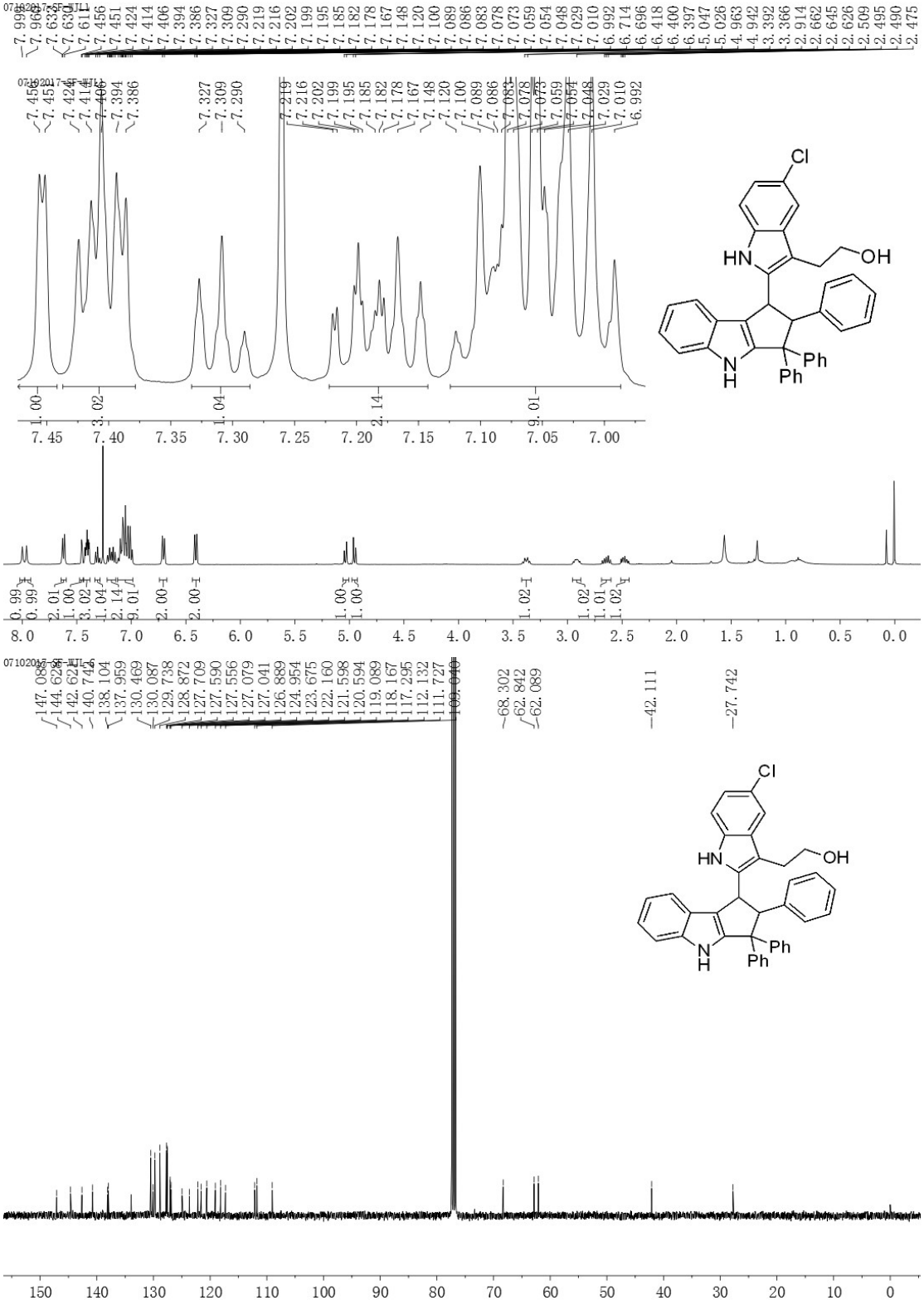

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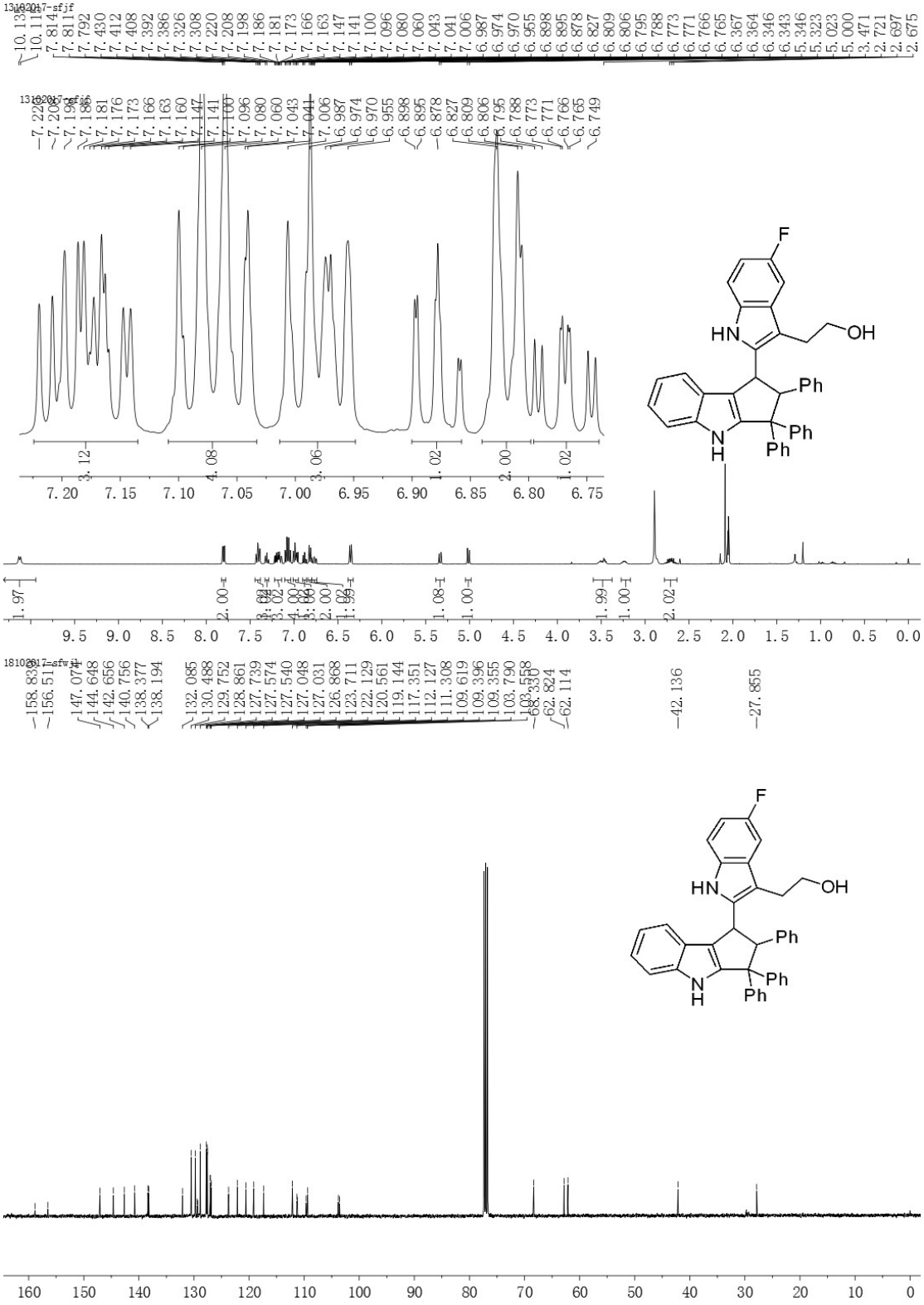
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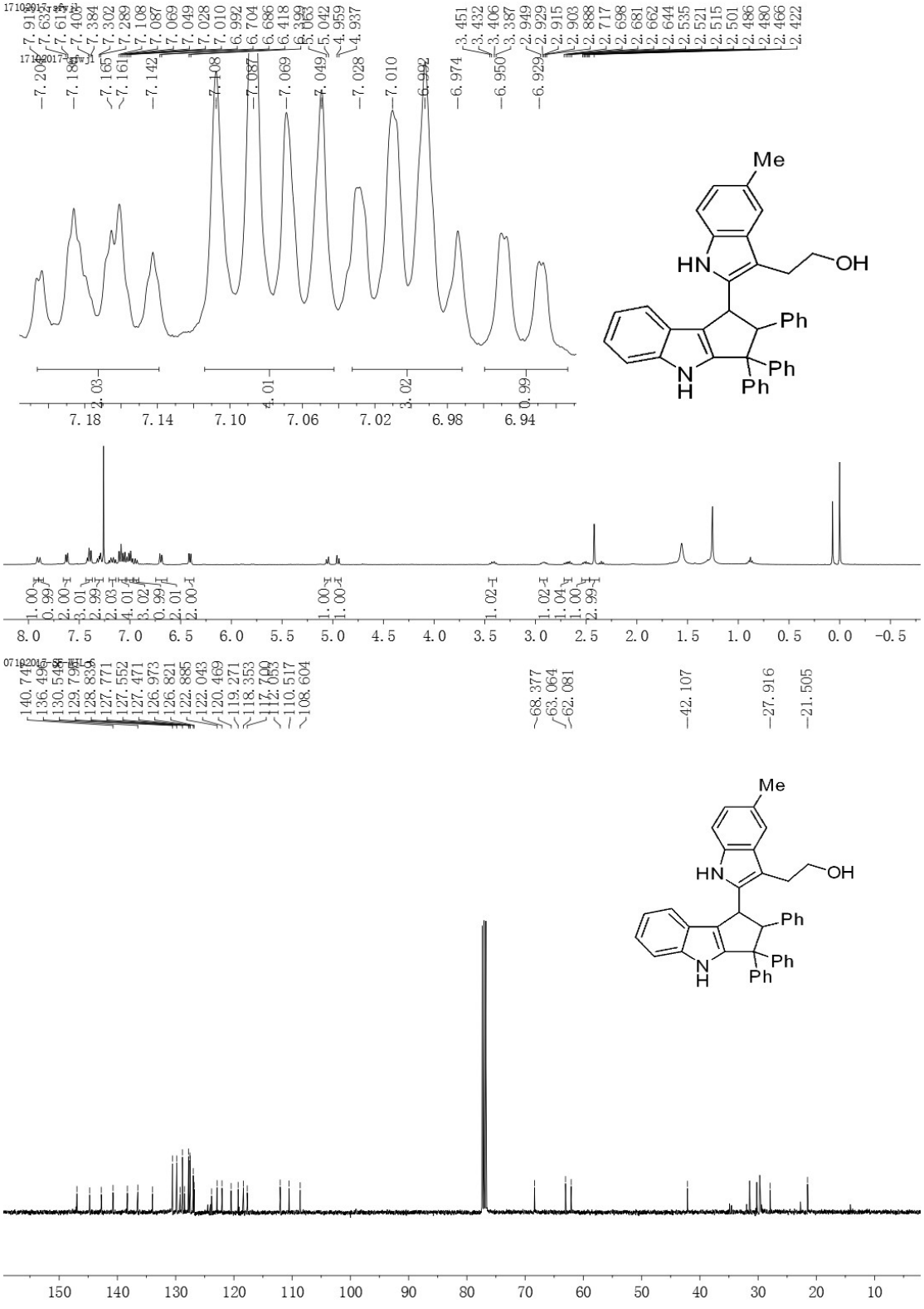
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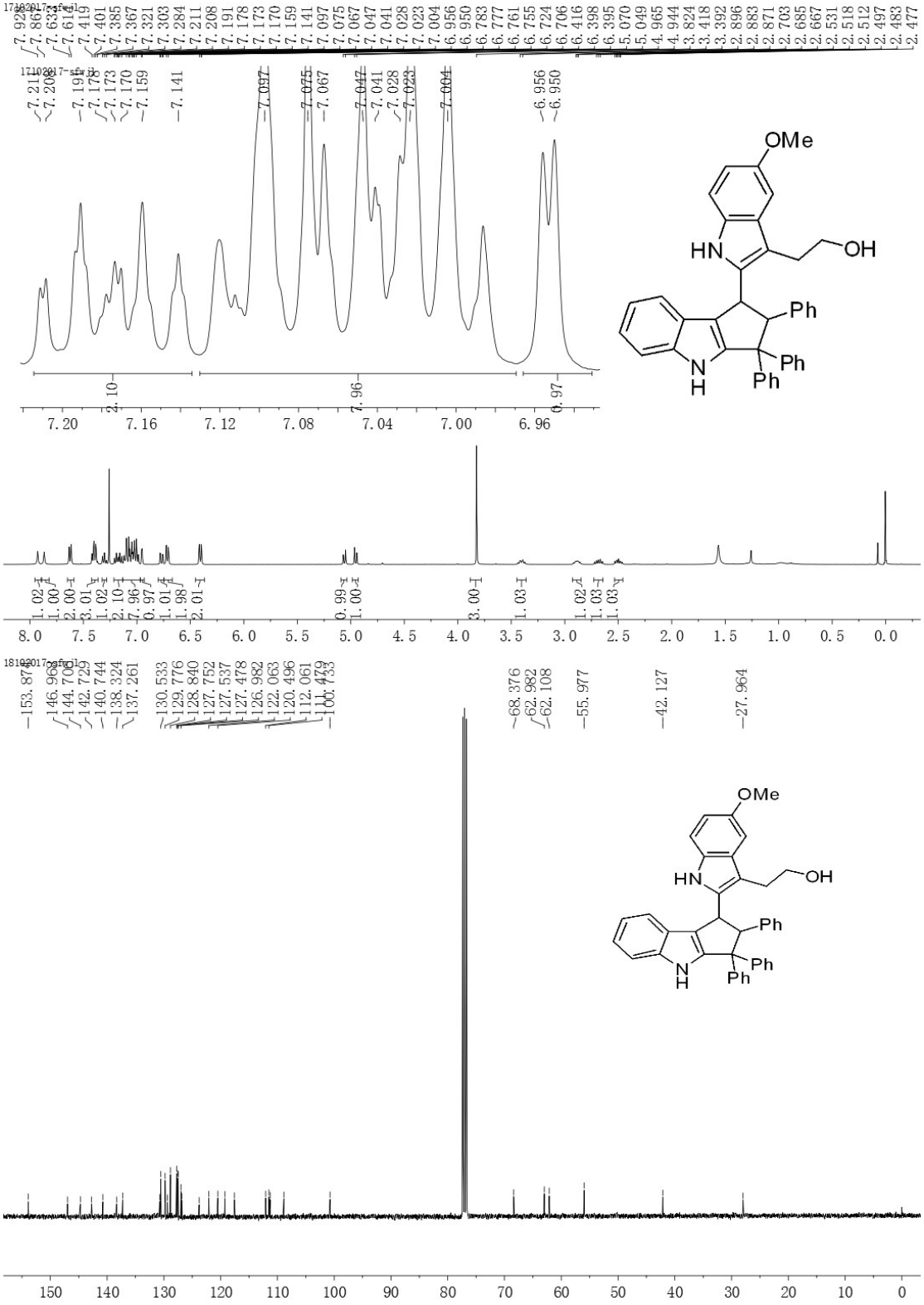

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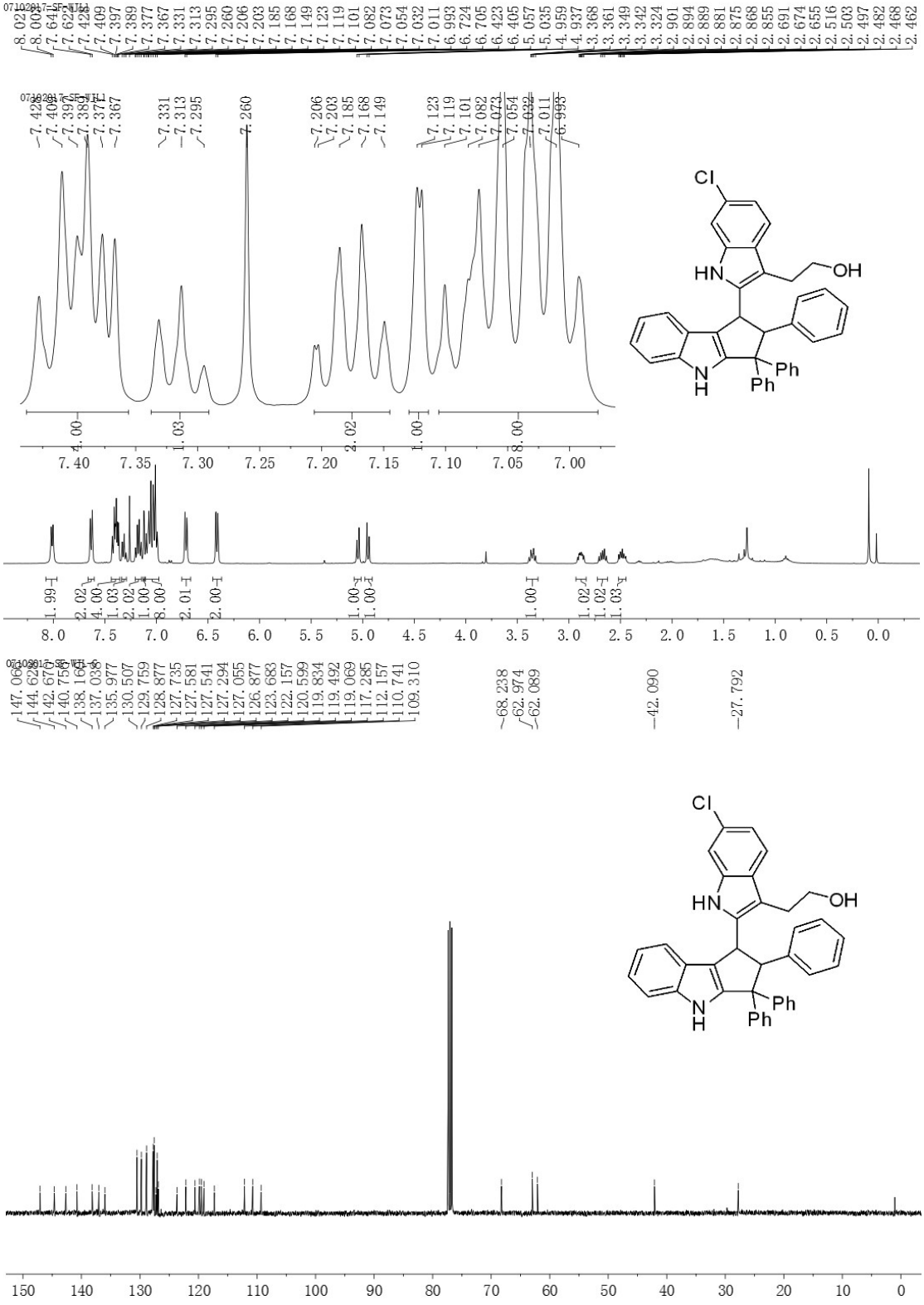

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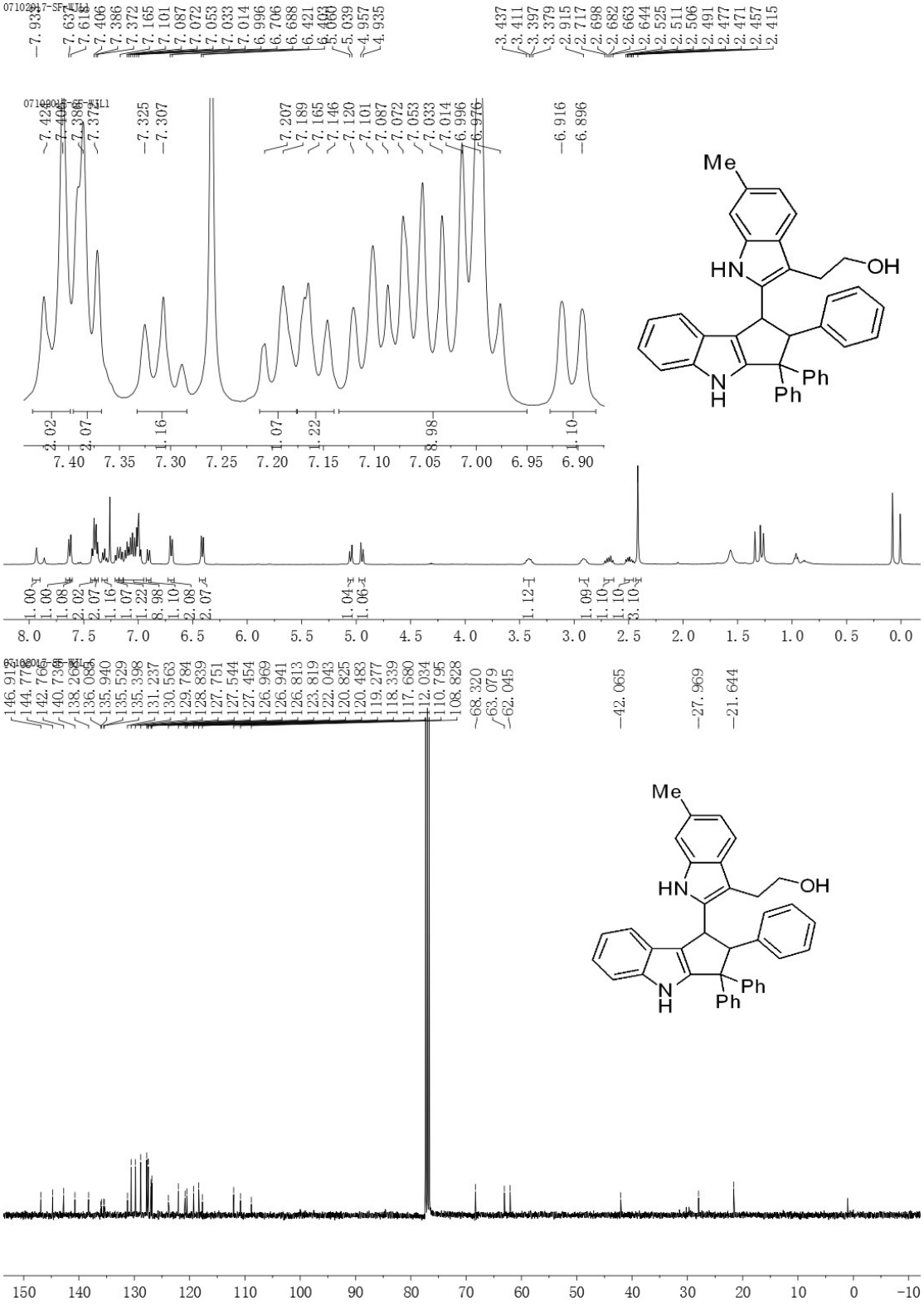

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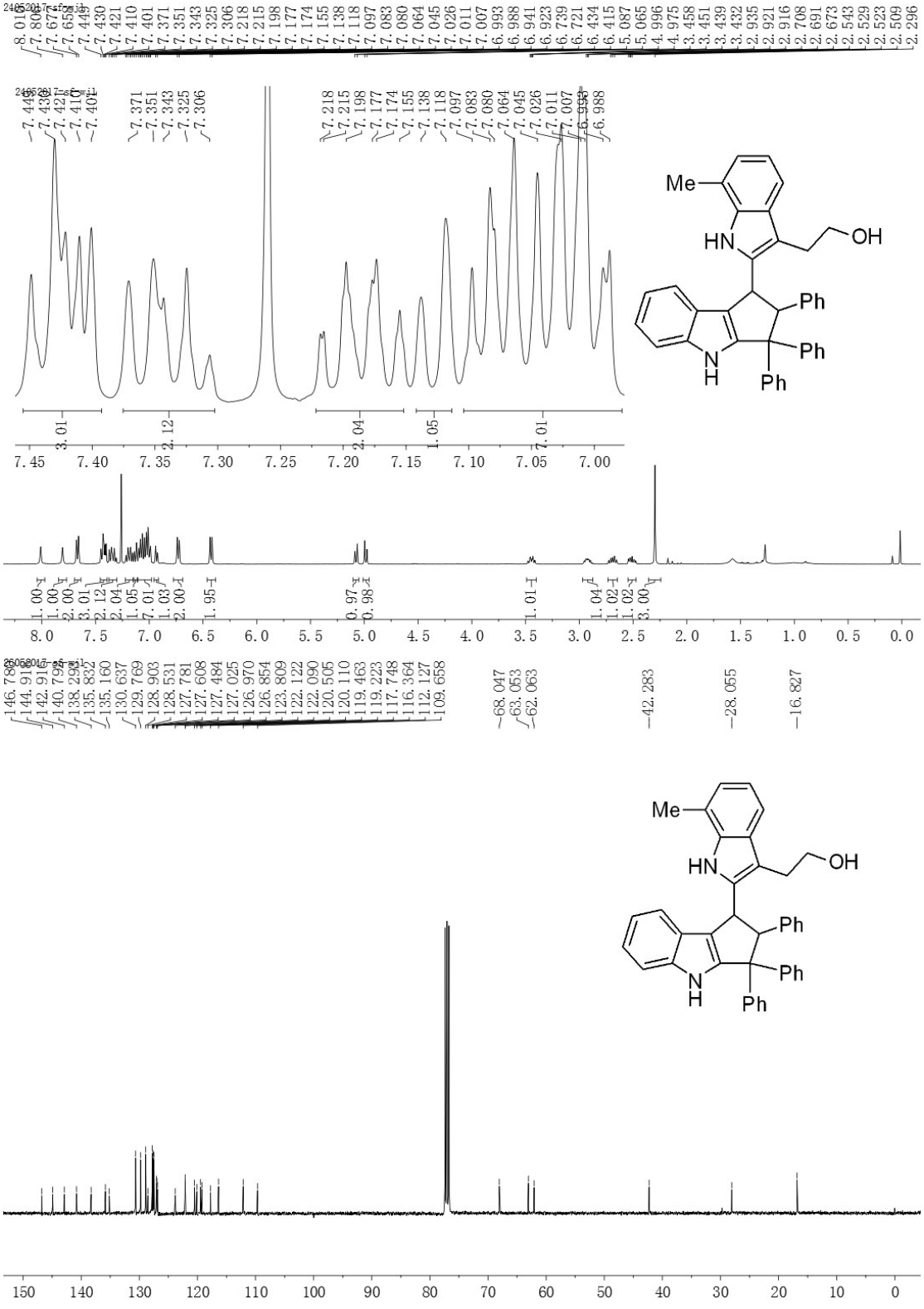
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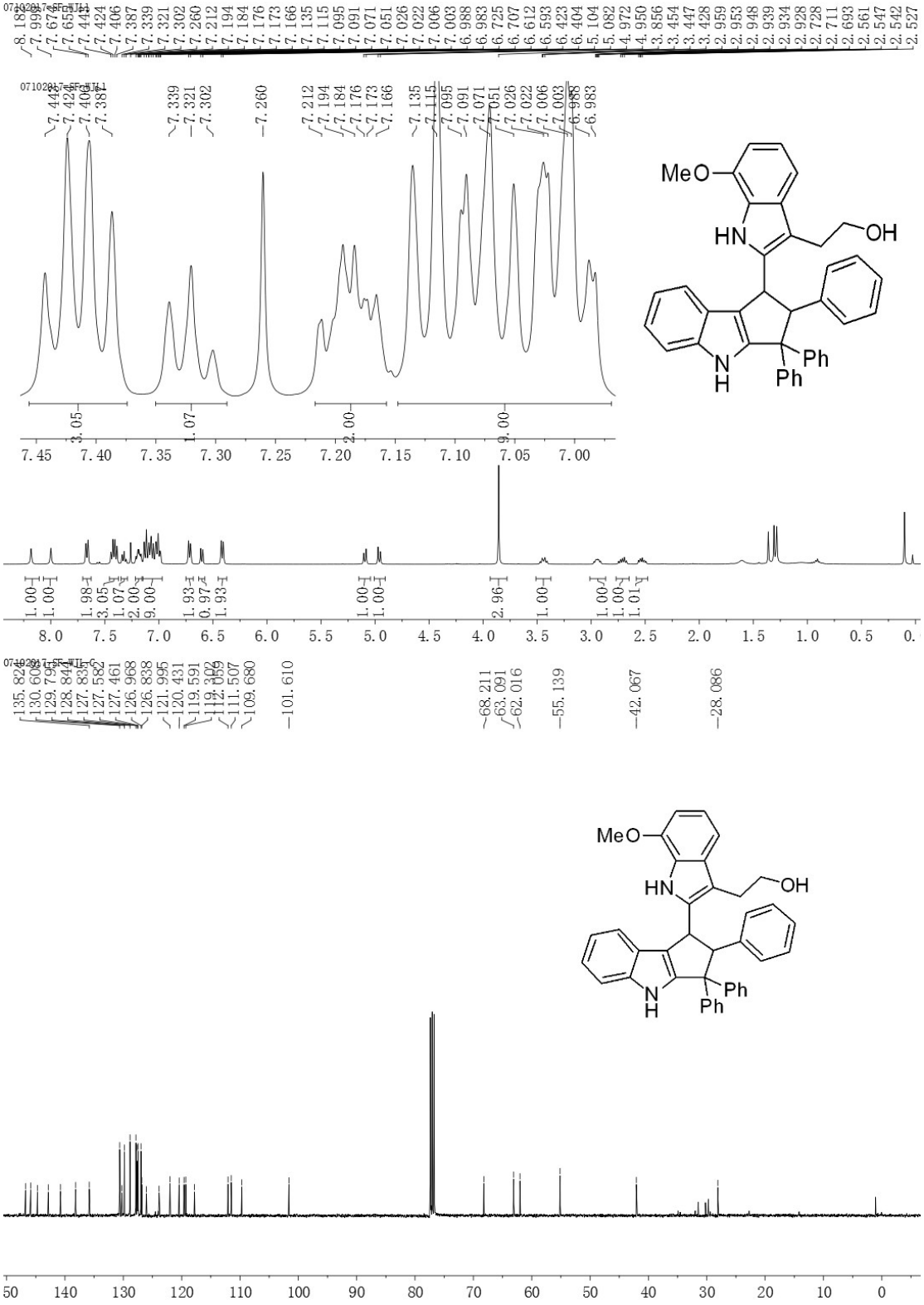

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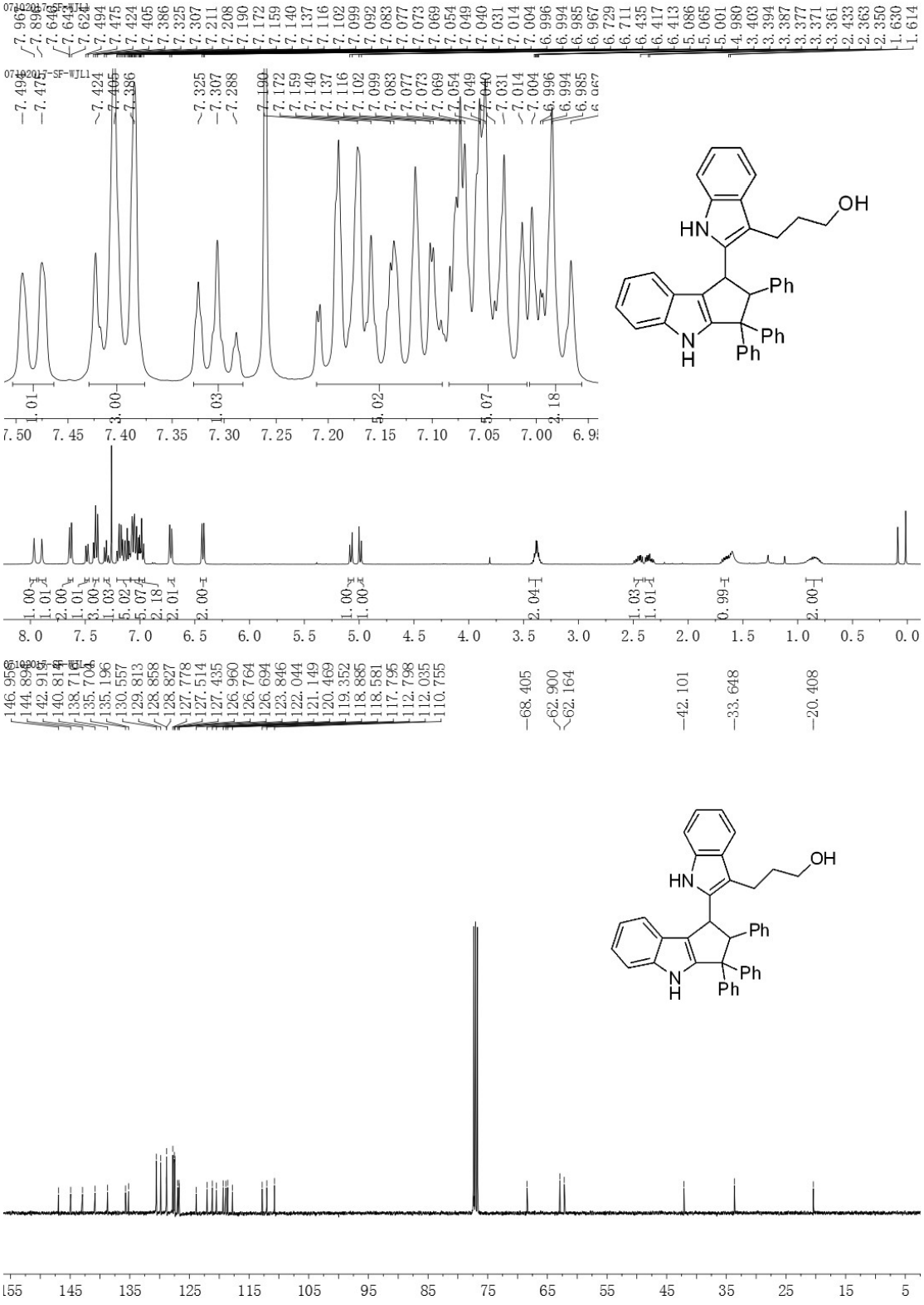

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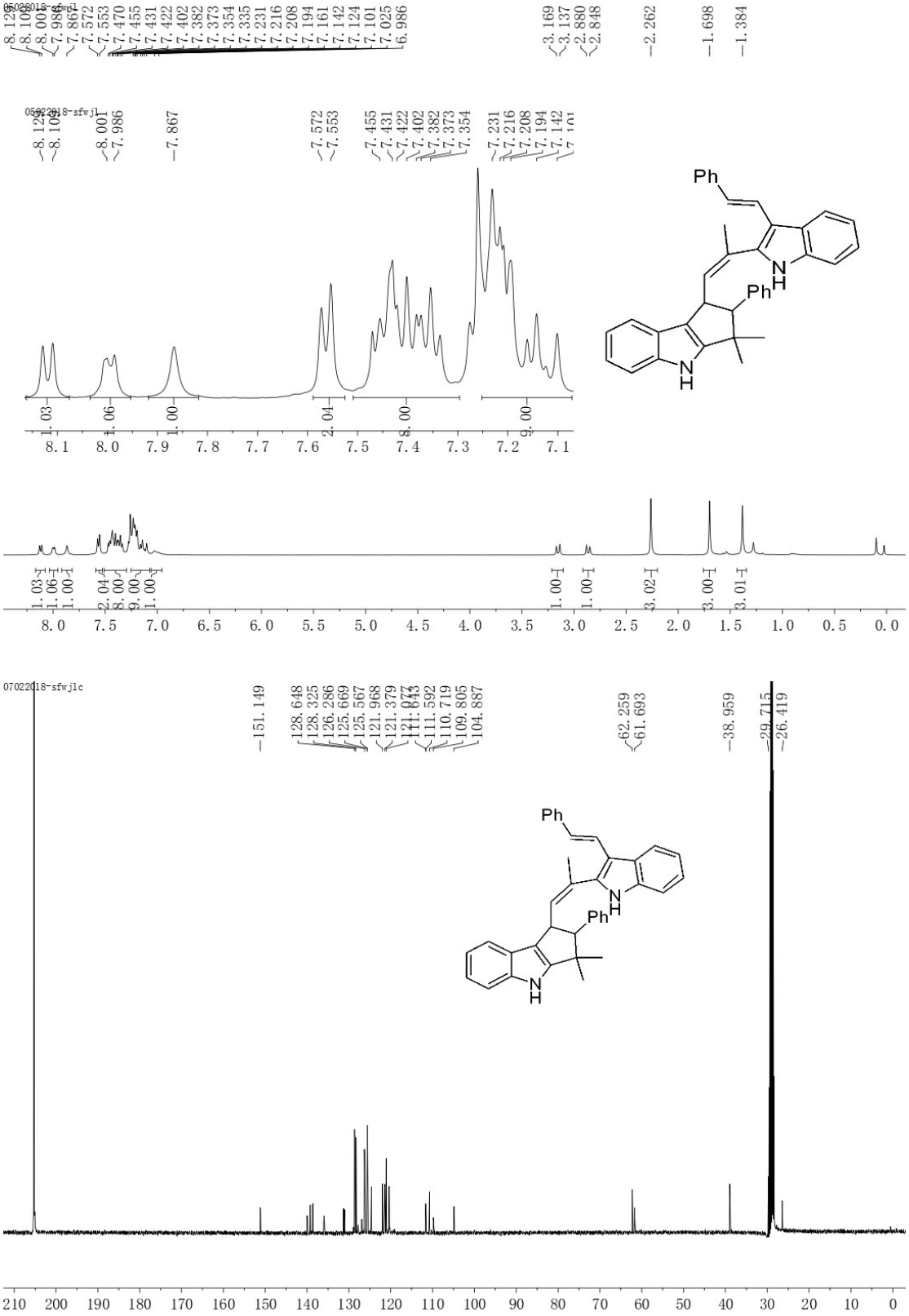
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7.373
7.354
7.335
7.231
7.216
7.208
7.194
7.161
7.142
7.124
7.101
7.025
6.986
3.169
3.137
2.880
2.848
2.262
1.698
1.384
Ph
N
H
Ph
N
H
1.03
1.06
1.00
2.04
8.00
9.00
1.00
8.1
8.0
7.9
7.8
7.7
7.6
7.5
7.4
7.3
7.2
7.1
1.00
1.00
3.02
3.00
3.01
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7.0
6.5
6.0
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5.0
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3.0
2.5
2.0
1.5
1.0
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0.0

07022018-sfwjlc
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104.887
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38.959
29.715
26.419
Ph
N
H
Ph
N
H
210
200
190
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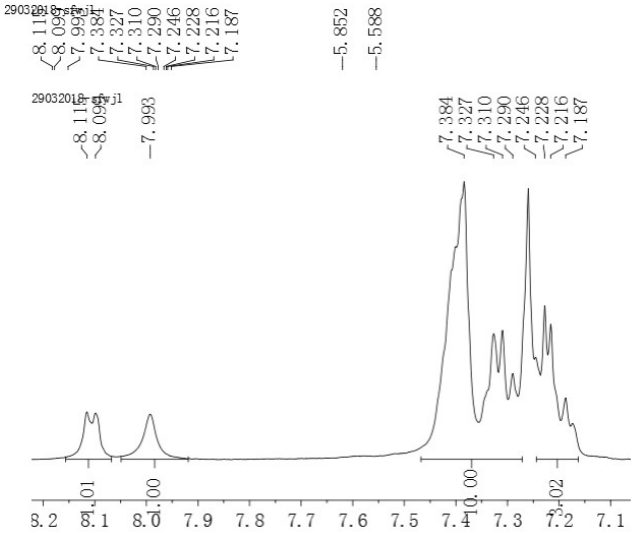
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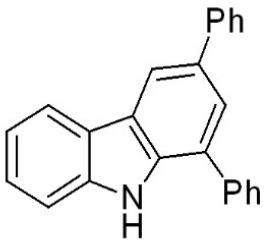
7.1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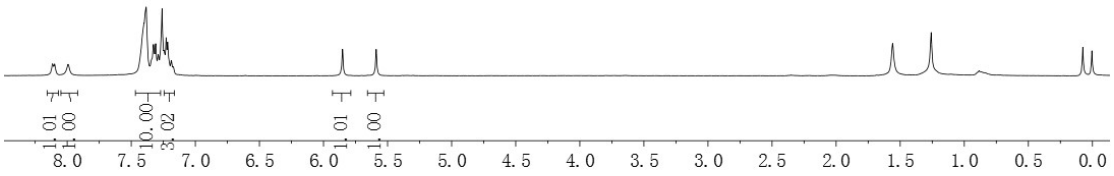
N
H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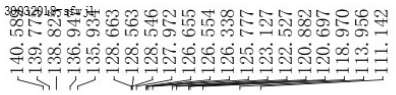
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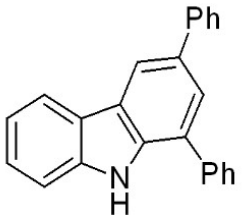
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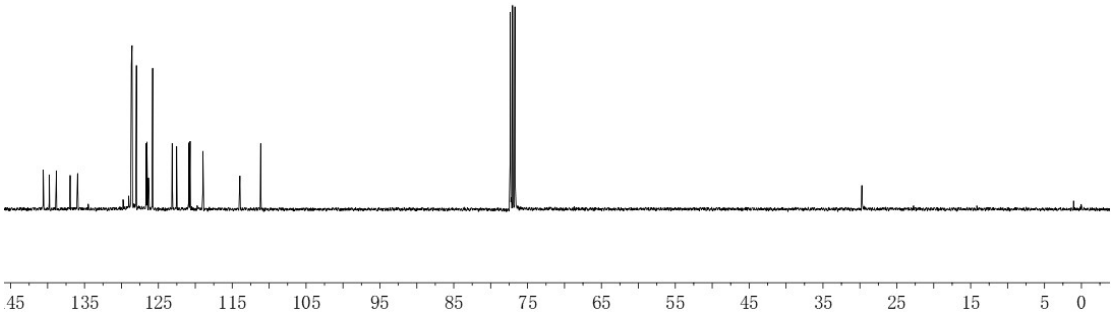
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85
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25
15
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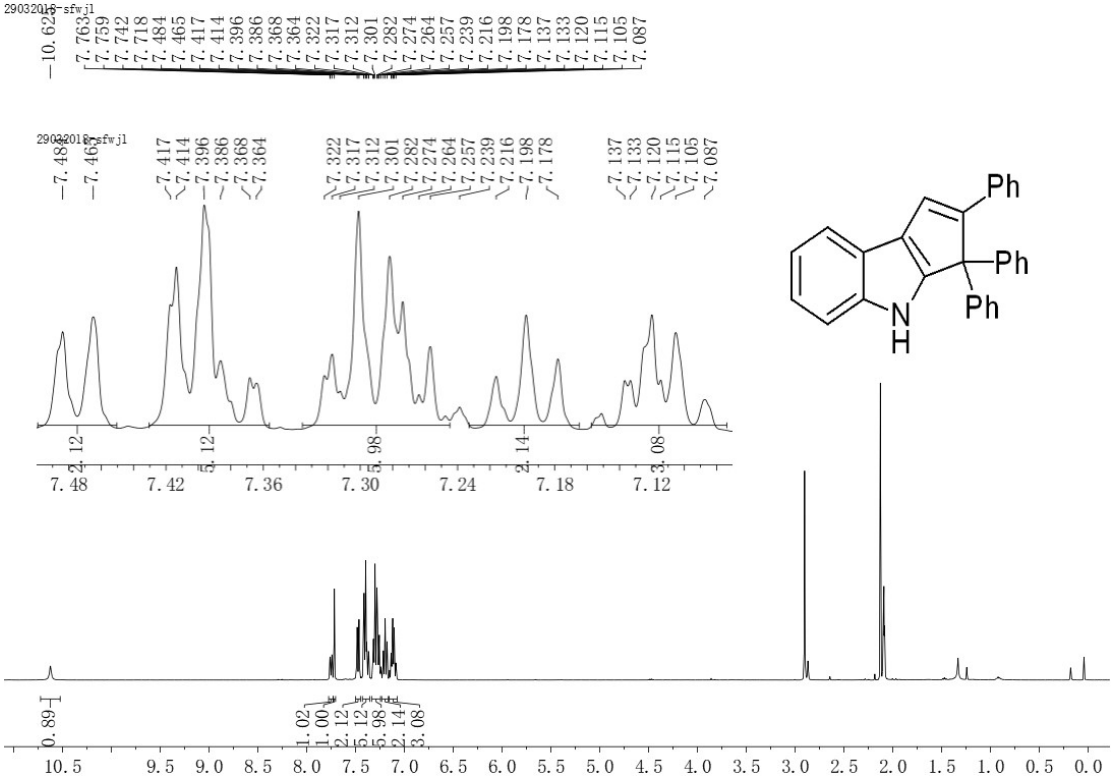
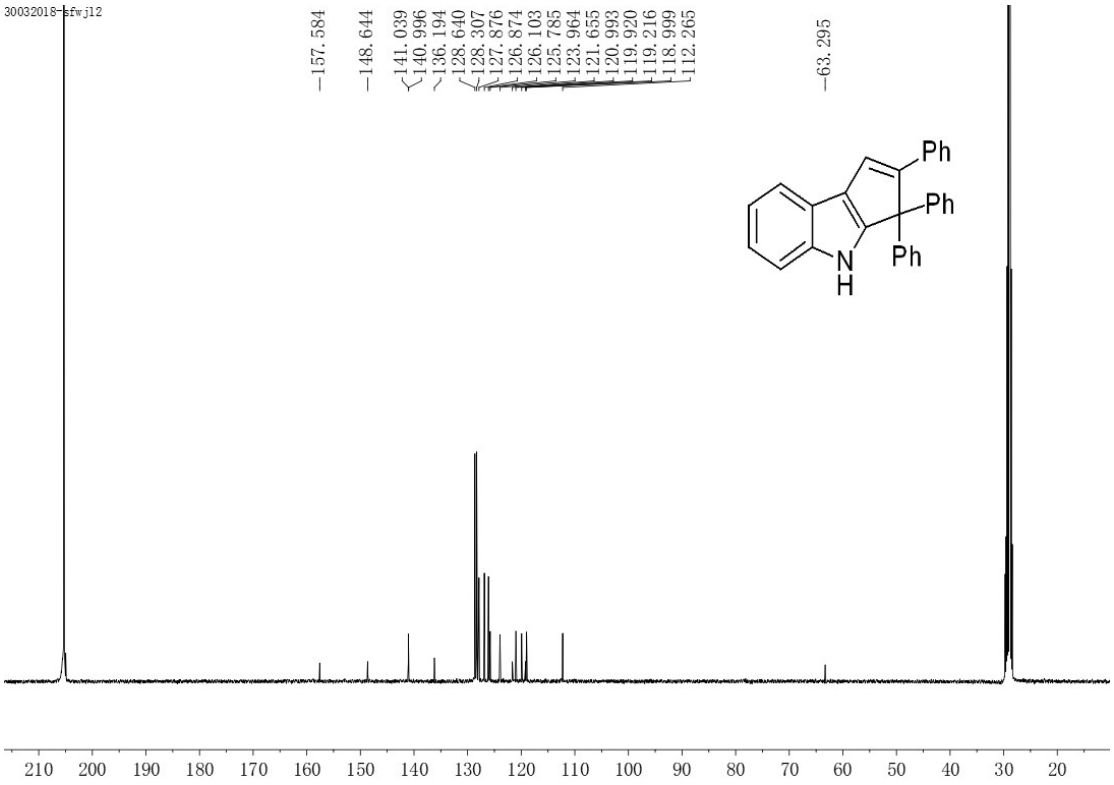
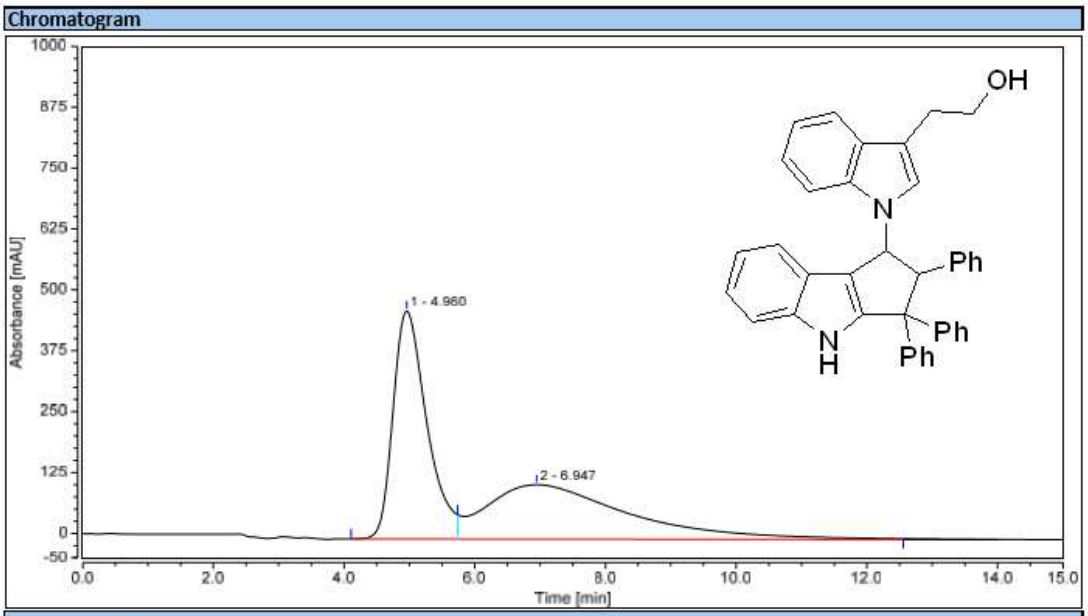
Compound 8





2. HPLC copies of product 3aa

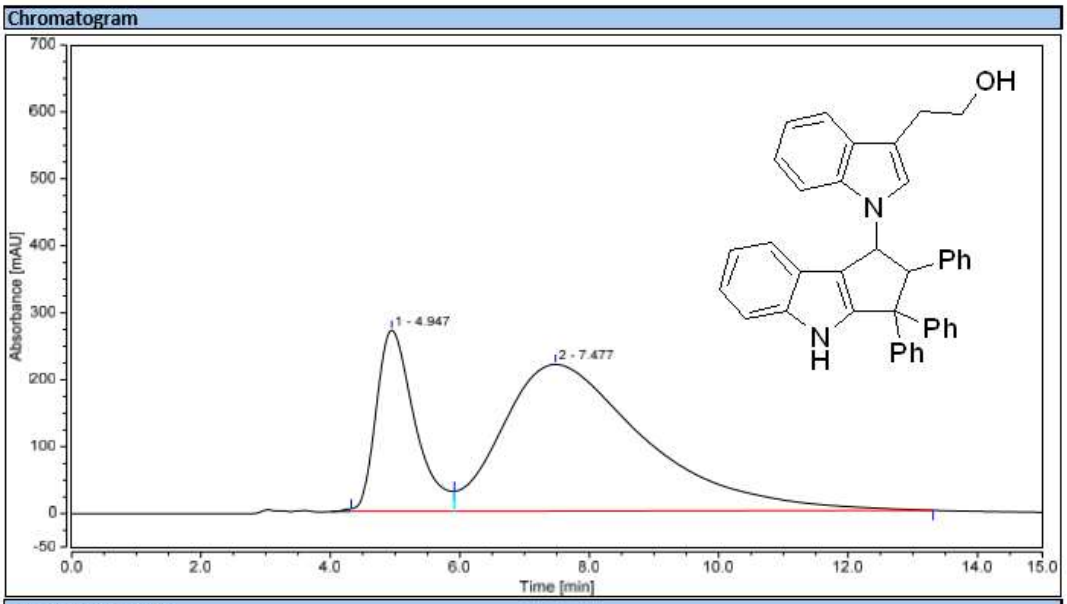
Racemic:



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount n.a.
1		4.960	278.865	467.885	50.13	80.76	n.a.
2		6.947	277.415	111.450	49.87	19.24	n.a.
Total:			**556.280**	**579.335**	**100.00**	**100.00**	

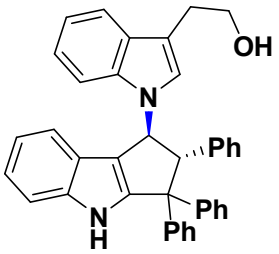
Enantioselective:



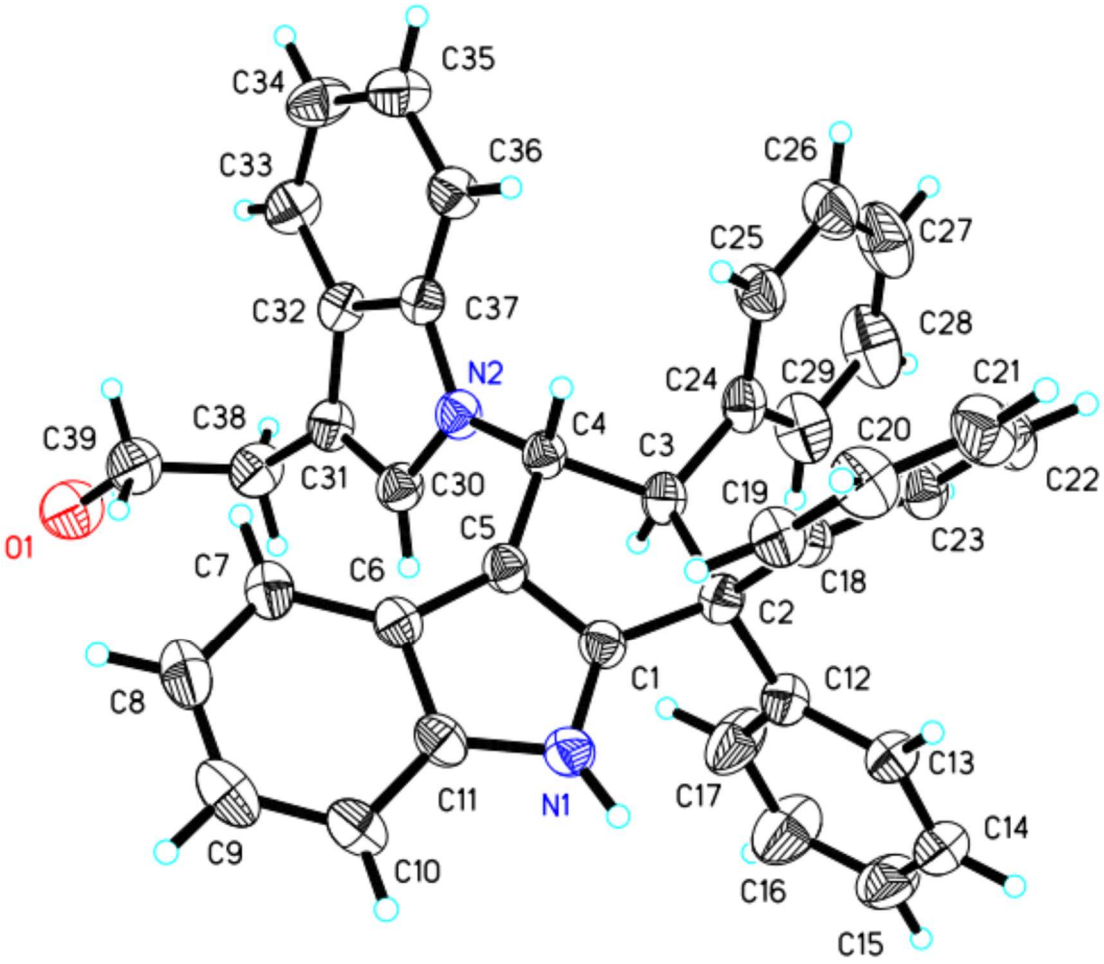
Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount n.a.
1		4.947	185.973	270.402	25.03	55.24	n.a.
2		7.477	556.950	219.077	74.97	44.76	n.a.
Total:			**742.923**	**489.479**	**100.00**	**100.00**	

3. X-ray analysis of product 3aa and 4aa



3aa

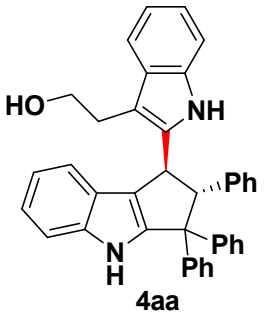


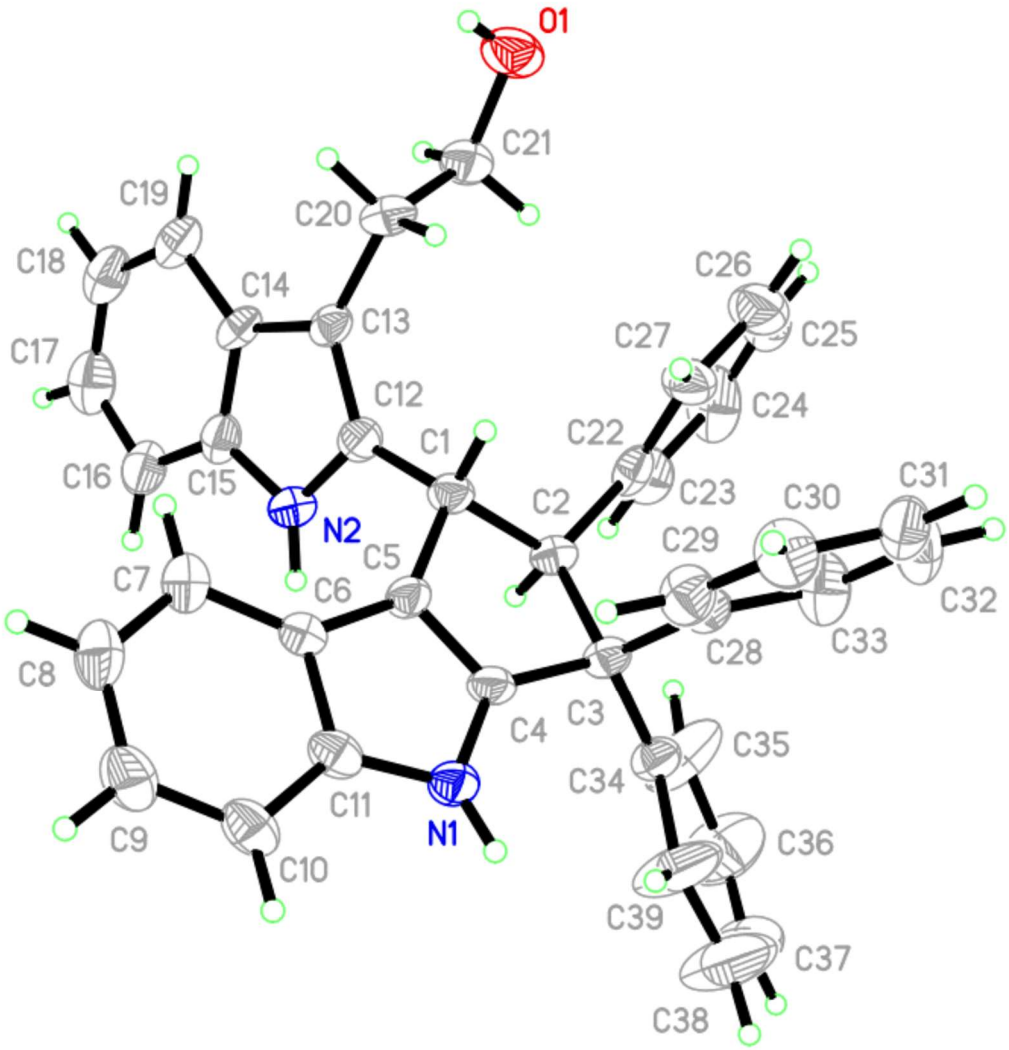
The thermal ellipsoid was drawn at the 30% probability level.

Figure S1. Single crystal structure of **3aa**

Temperature	296.15 K	
Wavelength	0.71073 Å	
Crystal system	Monoclinic	
Space group	C 1 2/c 1	
Unit cell dimensions	a = 23.869(3) Å	α= 90°.
	b = 13.815(2) Å	β= 103.665(2)°.
	c = 19.332(3) Å	γ = 90°.

Volume	6194.3(15) $Å^3$
Z	8
Density (calculated)	1.259 Mg/m^3
Absorption coefficient	0.158 mm^{-1}
F(000)	2472
Crystal size	0.3 x 0.3 x 0.1 mm^3
Theta range for data collection	2.447 to 27.484°.
Index ranges	-30<=h<=21, -16<=k<=17, -24<=l<=25
Reflections collected	18186
Independent reflections	6952 [R(int) = 0.0339]
Completeness to theta = 25.242°	99.7 %
Absorption correction	Semi-empirical from equivalents
Max. and min. transmission	0.7456 and 0.6720
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	6952 / 0 / 394
Goodness-of-fit on F^2	1.034
Final R indices [I>2sigma(I)]	R1 = 0.0648, wR2 = 0.1705
R indices (all data)	R1 = 0.1219, wR2 = 0.2013
Extinction coefficient	n/a
Largest diff. peak and hole	0.387 and -0.483 $e.Å^{-3}$





The thermal ellipsoid was drawn at the 30% probability level.

Figure S2. Single crystal structure of **4aa**

Empirical formula	C39 H32 N2 O
Formula weight	544.66
Temperature	296.15 K
Wavelength	0.71073 Å
Crystal system	Orthorhombic

Space group	$P2_12_12_1$	
Unit cell dimensions	a = 11.228(6) Å	α= 90°.
	b = 16.224(8) Å	β= 90°.
	c = 18.542(9) Å	γ = 90°.
Volume	3378(3) $Å^3$	
Z	4	
Density (calculated)	1.071 Mg/m^3	
Absorption coefficient	0.064 mm^{-1}	
F(000)	1152	
Crystal size	0.25 x 0.22 x 0.2 mm^3	
Theta range for data collection	2.530 to 26.749°.	
Index ranges	-10<=h<=14, -20<=k<=20, -23<=l<=23	
Reflections collected	19183	
Independent reflections	6988 [R(int) = 0.0381]	
Completeness to theta = 25.242°	99.6 %	
Absorption correction	Semi-empirical from equivalents	
Max. and min. transmission	0.7455 and 0.6449	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	6988 / 0 / 380	
Goodness-of-fit on F^2	0.934	
Final R indices [I>2sigma(I)]	R1 = 0.0762, wR2 = 0.2088	
R indices (all data)	R1 = 0.1074, wR2 = 0.2341	
Absolute structure parameter	0.0(9)	
Extinction coefficient	n/a	
Largest diff. peak and hole	0.469 and -0.319 $e.Å^{-3}$	