

Electronic Supporting Information

# Stabilization of a 12- $\pi$ Electrons Diamino-Benzoquinonediiimine Tautomer

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## TABLE OF CONTENT

I.	GENERAL REMARKS AND ANALYSIS CONDITIONS .....	2
II.	SYNTHETICS PROTOCOLS AND CHARACTERIZATION .....	3
III.	NMR SPECTRA .....	5
I.	INFRARED ANALYSIS .....	8
II.	MASS SPECTROMETRY .....	9
III.	ELECTROCHEMISTRY .....	10
IV.	ADDITIONAL OPTICAL INFORMATIONS .....	10
V.	QUANTUM MECHANICAL CALCULATIONS .....	11
VI.	REFERENCES .....	27

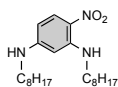
## I. GENERAL REMARKS AND ANALYSIS CONDITIONS

**Reagents.** Reagents were purchased from Sigma Aldrich and Alfa Aesar. Column chromatography were performed using Silica gel 60 (0.040-0.063 mm) from Merck. Optical properties were recorded in spectroscopic grade solvents.

**Analytical methods and apparatus.** NMR spectra were recorded JEOL ECS400 NMR spectrometers at room temperature. NMR chemical shifts are given in ppm ( $\delta$ ) relative to  $\text{Me}_4\text{Si}$  with solvent resonances used as internal standards ( $\text{CDCl}_3$ : 7.26 ppm for  $^1\text{H}$  and 77.2 for  $^{13}\text{C}$ ). IR spectra were recorded on an Agilent Cary 630 FTIR equipped with an attenuated total reflectance (ATR) sampling. UV-Vis absorption spectra were recorded on a VARIAN CARY 50 SCAN spectrophotometer at room temperature with a 300 nm/min scan rate. HRMS analyses were performed on a QStar Elite (Applied Biosystems SCIEX) or a SYNAPT G2 HDMS (Waters) spectrometers by the "Spectropole" of the Aix-Marseille University. These two instruments were equipped with an ESI or MALDI source. Electrochemical data were extracted from the cyclic voltamogramme performed on a potentiostat BAS 100 (Bioanalytical Systems) equipped with a computer with the BAS100W(v2.3) software. Working electrode : Pt (1.6 mm diameter) ; counter electrode : Pt and a Ag/AgCl electrode. The electrochemical study was performed in a  $(\text{nBu})_4\text{NPF}_6$  ( $c=0,1$  M) dichloromethane solution. The reference electrode was calibrated with a ferrocene solution ( $E^\circ(\text{Fc}/\text{Fc}^+) = 0,46\text{V}/\text{SCE}$ ). Scan rate: 100 mV.

## II. SYNTHETICS PROTOCOLS AND CHARACTERIZATION

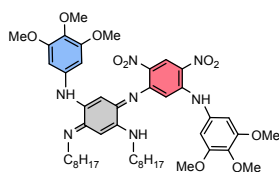
### Compound 4



2,4-difluoronitrobenzene (4 mL, 36.5 mmol, 1.0 equiv.), **DIPEA** (12.7 mL, 72 mmol, 2.0 equiv.) and octylamine (24 mL, 146 mmol, 4.0 equiv.) were introduced into a glass pressure bomb equipped with a Teflon screwcap. The mixture was heated at 140 °C for 3 h under vigorous stirring. After that, the orange mixture was allowed to cool to room temperature and 10 mL of EtOH were added; a precipitate formed and the mixture was stirred for additional 2 h. The solid residue was isolated by filtration on a sintered glass and wash with hot water (30 mL at 60 °C). It was then dried under vacuum to quantitatively afford compound **4** as an orange solid.

**Rf** = 0.53 (SiO<sub>2</sub>, CH<sub>2</sub>Cl<sub>2</sub>). **<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)**: δ = 8.53 (bs, 1H), 8.00 (dd, 1H, <sup>3</sup>J<sub>H-H</sub> = 9.4 Hz, <sup>5</sup>J<sub>H-H</sub> = 1.1 Hz), 5.88 (dd, 1H, <sup>3</sup>J<sub>H-H</sub> = 9.4 Hz, <sup>4</sup>J<sub>H-H</sub> = 2.4 Hz), 5.61 (d, 1H, <sup>5</sup>J<sub>H-H</sub> = 1.1 Hz), 4.4 (bs, 1H), 3.23 (q, 2H, <sup>3</sup>J<sub>H-H</sub> = 7.2 Hz), 3.17 (q, 2H, <sup>3</sup>J<sub>H-H</sub> = 7.2 Hz), 1.80-1.55 (m, 4H), 1.48-1.18 (m, 20H), 0.93-0.82 (m, 6H). **<sup>13</sup>C[<sup>1</sup>H] NMR (101 MHz, CDCl<sub>3</sub>)**: δ = 154.4, 148.6, 129.2, 123.6, 104.7, 89.8, 43.3, 42.9, 31.8, 31.7, 29.3, 29.2, 29.1, 28.8, 27.1, 27.0, 22.6, 14.0. **IR-ATR (neat, cm<sup>-1</sup>)**: ν = 3320, 2925, 2851, 1613, 1577, 1541, 1514, 1459, 1401, 1380, 1312, 1259, 1219, 1187, 1090, 818, 789, 753, 540. **HRMS (ESI-TOF)** calculated for [M+H<sup>+</sup>]: 378.3042 (C<sub>22</sub>H<sub>40</sub>N<sub>3</sub>O<sub>2</sub><sup>+</sup>), found 378.3075.

### Compound 9



A solution of compound **4** (628 mg, 1.66 mmol, 1.0 equiv.) in a THF/MeOH mixture (25 mL) was hydrogenated (40 bars) in the presence of activated (vacuum + heat) Pd/C (5% wt, 36 mg, 0.017 mmol, 1 mol%) overnight. After reducing the pressure, the solution was degassed with argon and cooled to 0 °C with an ice-bath. Then, **DFDNB** (320 mg, 1.57 mmol, 0.95 equiv.) was added (the mixture turned brown) and the mixture stirred for 10 mins at 0 °C. Then, **DIPEA** (300 μL, 1.5 mmol, 1 equiv.) was added and the solution was stirred for another 10 mins at room temperature (25 °C). After that, **3,4,5-trimethoxyaniline** (637 mg, 3.48 mmol, 2.1 equiv.) and **DIPEA** (602 μL, 3.46 mmol, 2.1 equiv.) were added. The mixture was stirred under reflux for 12h under aerobic conditions then, MnO<sub>2</sub> (3 g, 34.8 mmol, 10 equiv) was added and the mixture stirred for another 12h at room temperature. Then, Pd/C was removed by filtration through a standard Celite pad and the solvent was evaporated. The crude was taken up with AcOEt and washed 2 times with water. The organic layer was dried over Na<sub>2</sub>SO<sub>4</sub> and the solvent evaporated. The crude product was purified by silica gel column chromatography

(CH<sub>2</sub>Cl<sub>2</sub> to CH<sub>2</sub>Cl<sub>2</sub>/MeOH 98.5/1.5) to afford the desired compound **9** as a shiny-brown solid in 28% yield.

**Rf** = 0.45 (SiO<sub>2</sub>, CH<sub>2</sub>Cl<sub>2</sub>/MeOH, 97:3). **<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>):** δ = 9.71 (br s, 1H), 9.10 (s, 1H), 6.52 (s, 1H), 6.41 (s, 2H), 6.22 (s, 2H), 5.72 (s, 1H), 5.40 (s, 1H), 3.84 (s, 3H), 3.79 (s, 3H), 3.74 (s, 6H), 3.71 (s, 6H), 3.45 (t, 2H, <sup>3</sup>J<sub>H-H</sub> = 7.1 Hz), 3.17 (t, 2H, <sup>3</sup>J<sub>H-H</sub> = 7.1 Hz), 1.77-1.66 (m, 4H), 1.46-1.27 (m, 20H), 0.90-0.86 (m, 6H). **<sup>13</sup>C[<sup>1</sup>H] NMR (101 MHz, CDCl<sub>3</sub>):** δ = 154.0, 153.6, 153.5, 151.9, 151.8, 146.4, 146.4, 146.2, 136.8, 136.5, 134.5, 132.6, 130.9, 127.1, 126.8, 105.9, 105.8, 102.6, 102.5, 98.9, 98.9, 90.8, 86.1, 61.0, 60.9, 56.2, 56.2, 56.0, 55.9, 49.5, 43.9, 31.9, 31.8, 30.6, 29.5, 29.3, 29.2, 28.8, 27.7, 27.2, 22.7, 22.6, 14.1, 14.1. **UV-Vis:** λ<sub>max</sub> (CH<sub>2</sub>Cl<sub>2</sub>) = 366 nm (ε = 31300 L.mol<sup>-1</sup>.cm<sup>-1</sup>). **IR-ATR (neat, cm<sup>-1</sup>):** ν = 3333, 2923, 2852, 2124, 1592, 1561, 1499, 1451, 1416, 1320, 1279, 1225, 1122, 1052, 997, 921, 830, 797, 744, 718. **HRMS (ESI-TOF+)** calculated for [M+H<sup>+</sup>]: 874.4709 (C<sub>46</sub>H<sub>64</sub>N<sub>7</sub>O<sub>10</sub><sup>+</sup>), found 874.4707.

### III. NMR SPECTRA

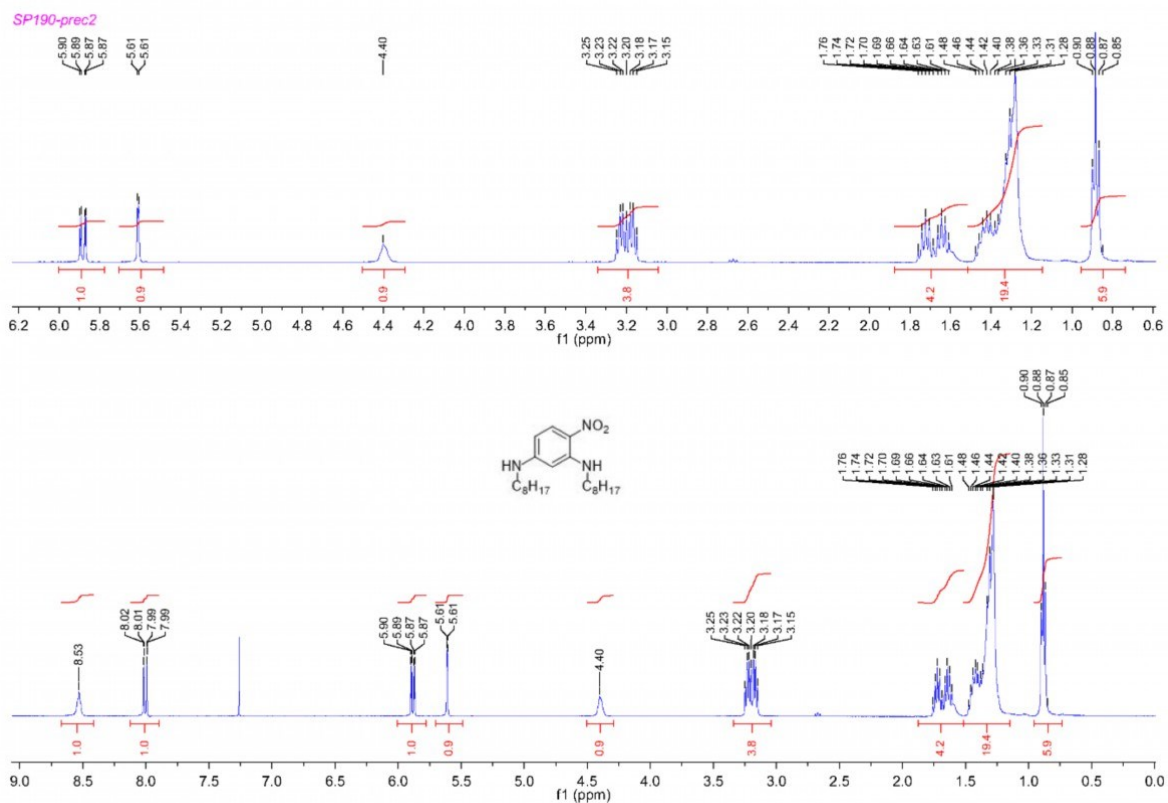


Figure S 1. <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of compound 4.

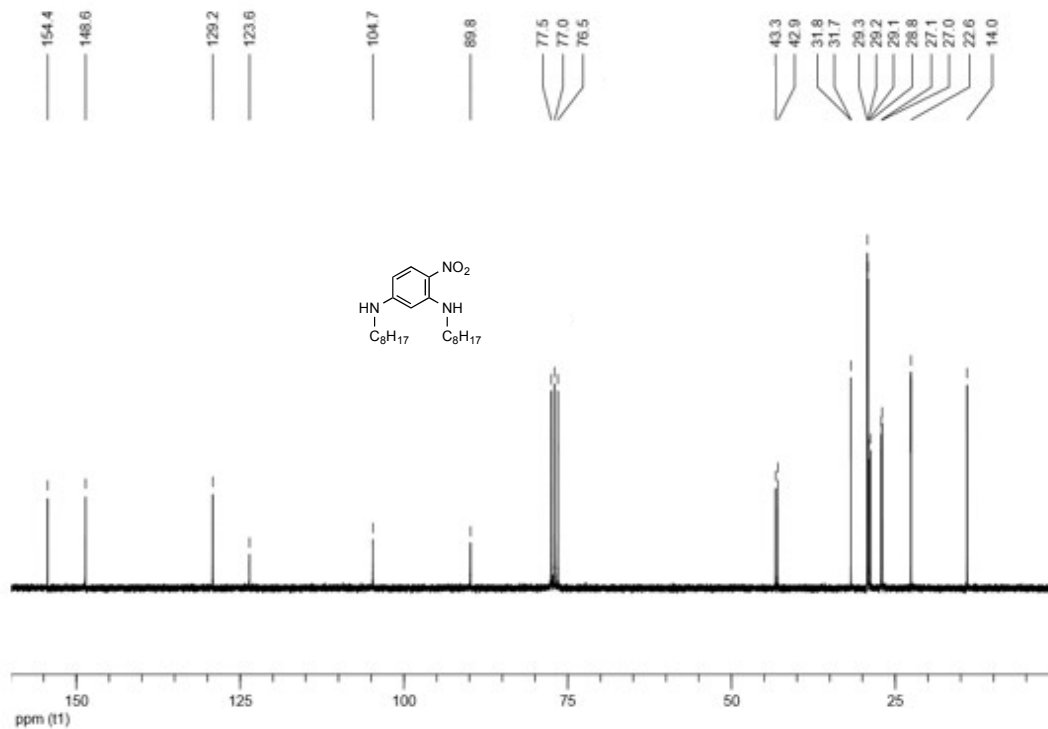
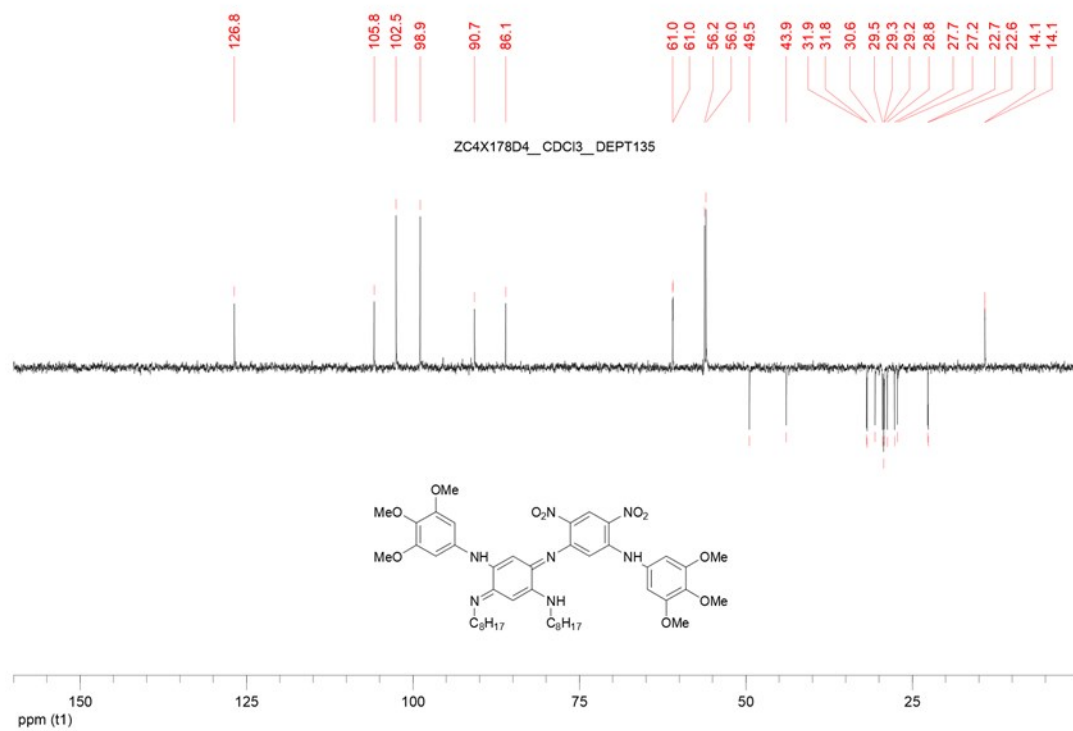
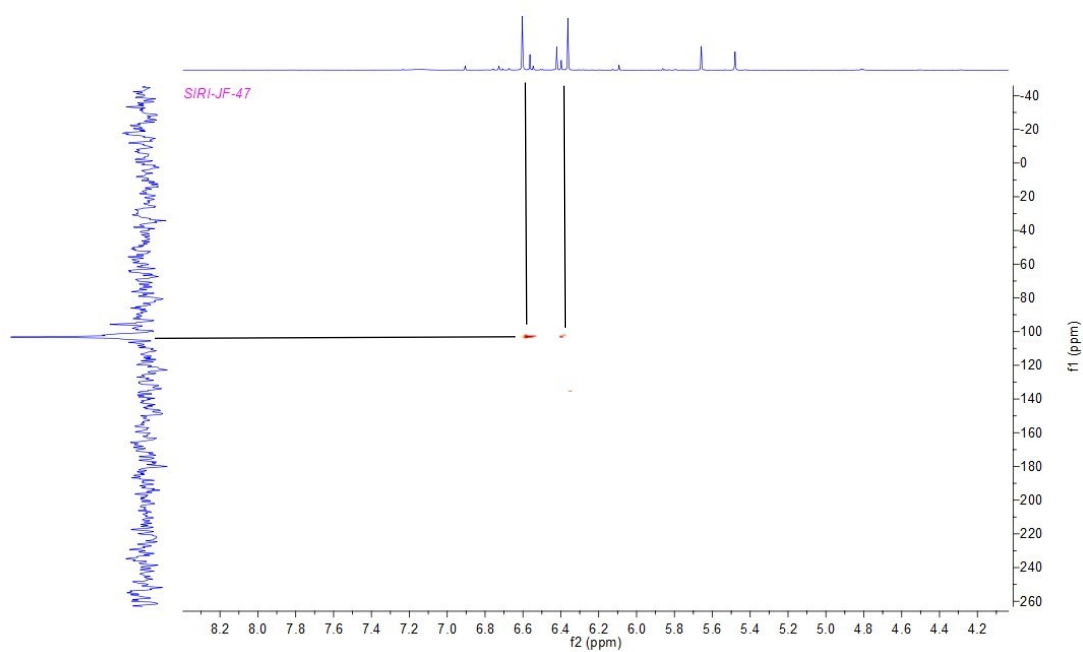


Figure S 2. <sup>13</sup>C NMR (101 MHz, CDCl<sub>3</sub>) of compound 4.





**Figure S 5**  $^{13}\text{C}$  DEPT NMR (101 MHz,  $\text{CDCl}_3$ ) of compound **9**.



**Figure S 6**  $^1\text{H}$ - $^{15}\text{N}$  HMBC NMR (500 MHz,  $\text{DMSO}-[d_6]$ ) of compound **9**.

## I. INFRARED ANALYSIS

Agilent Resolutions Pro

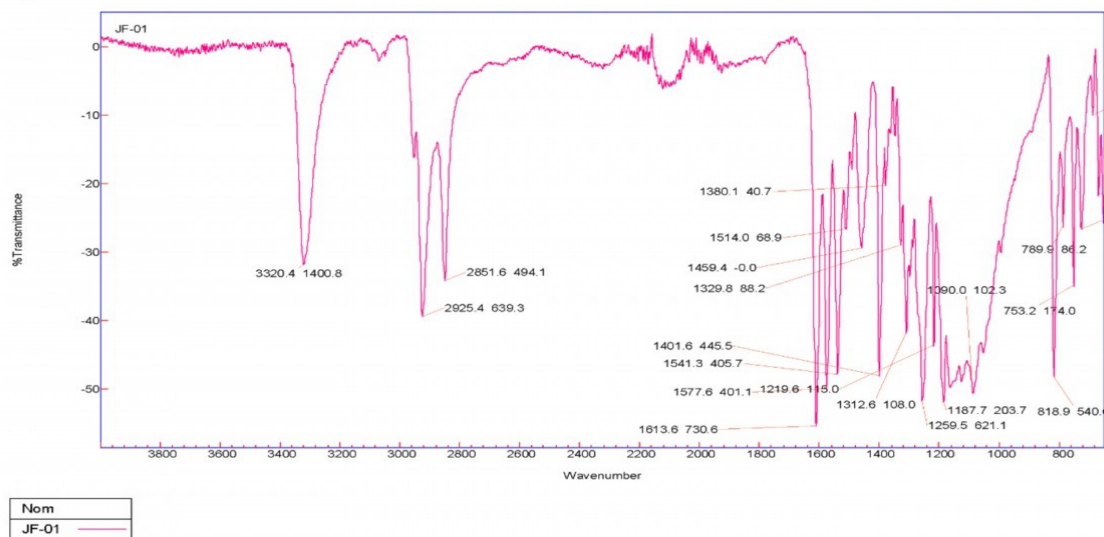


Figure S 7 IR-ATR spectrum of compound 4.

Agilent Resolutions Pro



Figure S 8 IR-ATR spectrum of compound 9.



## II. MASS SPECTROMETRY

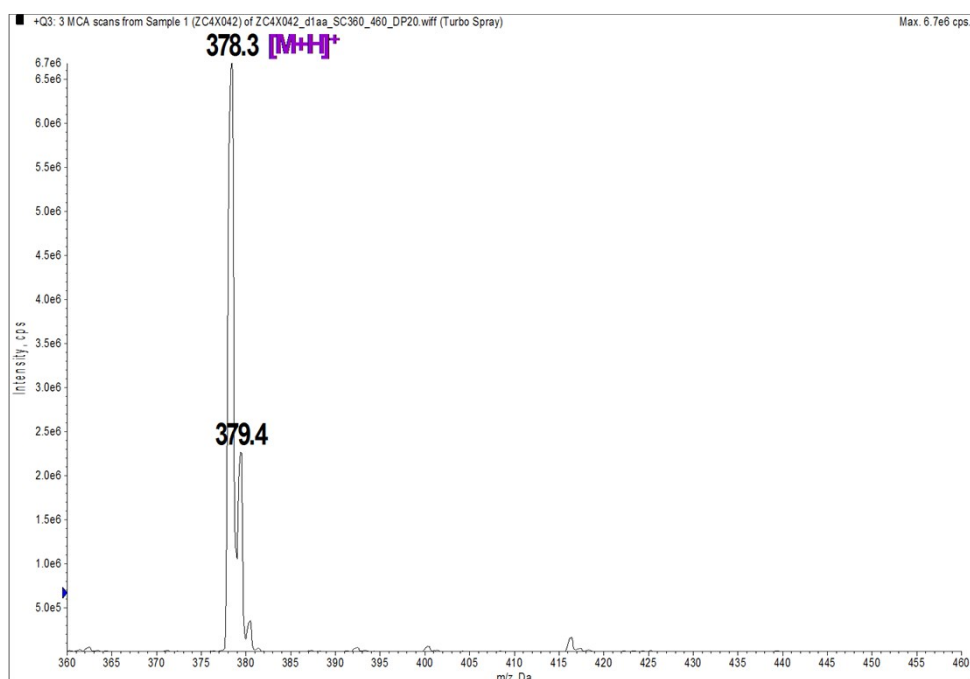


Figure S 9. ESI-MS<sup>+</sup> spectrum of compound 4.

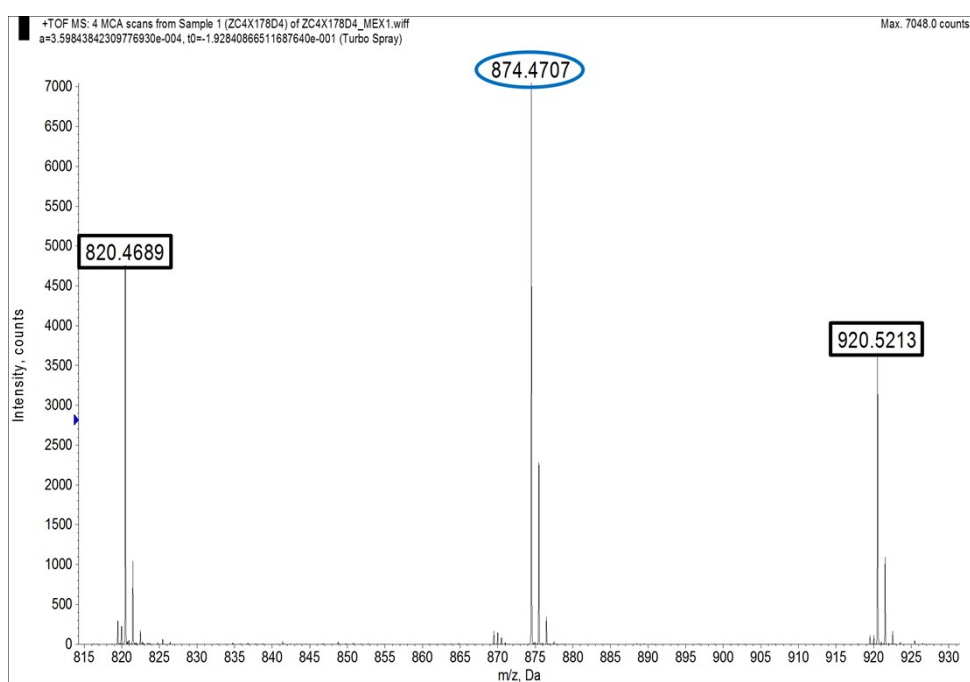
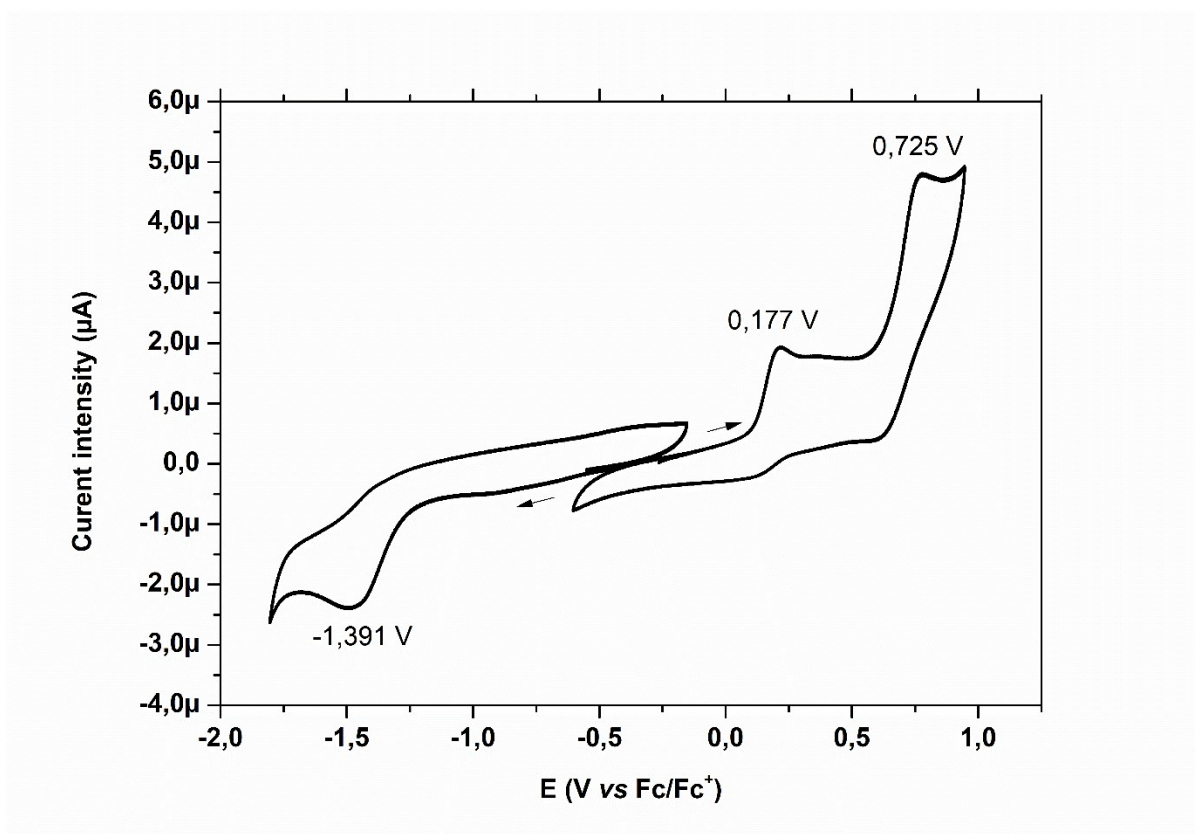


Figure S 10. ESI-HRMS<sup>+</sup> spectrum of compound 9. Target ion is detected at m/z 874.4707 and calibration peaks are observed at m/z 820.4689 and m/z 920.5213.

### III. ELECTROCHEMISTRY



	$E_{p_c}(\text{red}_1)$	$E_{1/2} \text{ red1}$	$E_{1/2} \text{ ox}_1$	$E_{p_a}(\text{ox}_1)$	$E_{1/2} \text{ ox}_2$	$E_{p_a}(\text{ox}_2)$
<b>9 (DCM)</b>	-1,47	-1,39 <b>1e</b>	0,18 <b>1e</b>	0,21	0,73 <b>2e</b>	0,77

**Figure S 11.** Voltammogramme of compound **9** in DCM, 0.1M TBAPF<sub>6</sub>.

### IV. ADDITIONAL OPTICAL INFORMATIONS

Solvent	Polarity index	$\lambda_{\text{max}}$ (nm)	$\epsilon$ (M <sup>-1</sup> .cm <sup>-1</sup> )
DCM	3.1	374	31 800
MeOH	5.1	370	30 600
MeCN	5.8	373	31 100
DMF	6.4	373	31 700
DMSO	7.2	380, 657	32 600, 750

**Table S 1.** Spectral changes recorded during the solvatochromism study.

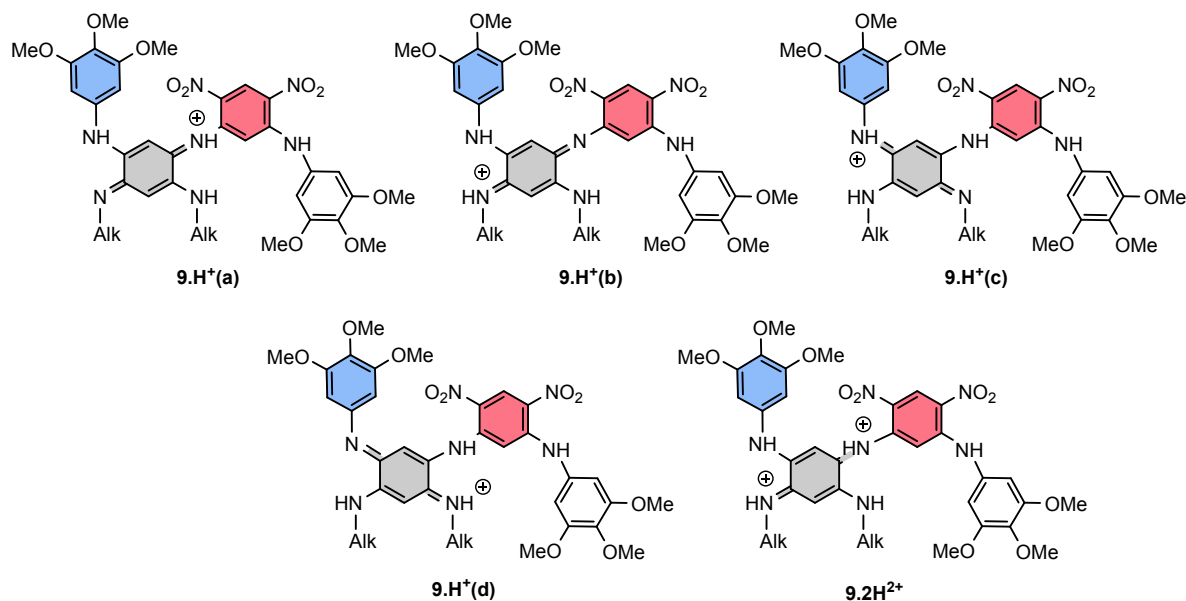
## V. QUANTUM MECHANICAL CALCULATIONS

### Methods

All calculations have been performed with Gaussian16.A.03,<sup>1</sup> using default procedures and algorithms except when noted below. The long alkyl chains were replaced by methyl groups in the calculations. We have used the PBE0<sup>2</sup> global hybrid functional for all our structural and vibrational calculations, and applied tighten thresholds for the energy (at least  $10^{-9}$  au) and geometry convergences (so-called *tight* threshold in Gaussian,  $10^{-5}$  au on rms residual forces), as well as used the largest DFT integration grid available in Gaussian (*superfine* grid). For all compounds, we have optimized the ground-state geometry with the 6-31++G(d,p) atomic basis set and subsequently verified the absence of imaginary frequencies by computing analytically the Hessian at the same level of theory. These calculations have been made starting with various conformers. Subsequent single-point calculations with the same functional and the larger 6-311++G(2d,p) basis set were next performed. The Gibbs energies use electronic energies determined with this larger basis set and thermodynamic/vibrational corrections obtained with the 6-31++G(d,p) basis. The excited-state calculations were performed with TD-DFT considering 15 states determined and the 6-311++G(2d,p) basis. Given the large number of strong accepting and donating groups in the compounds, CT states could be expected and the TD-DFT calculations have been performed with the range-separated CAM-B3LYP functional.<sup>3</sup> In all steps, the solvent effects were modelled through the well-known Polarizable Continuum Model (PCM, dichloromethane),<sup>4</sup> using the linear-response *non-equilibrium* model for the excited-state calculations.

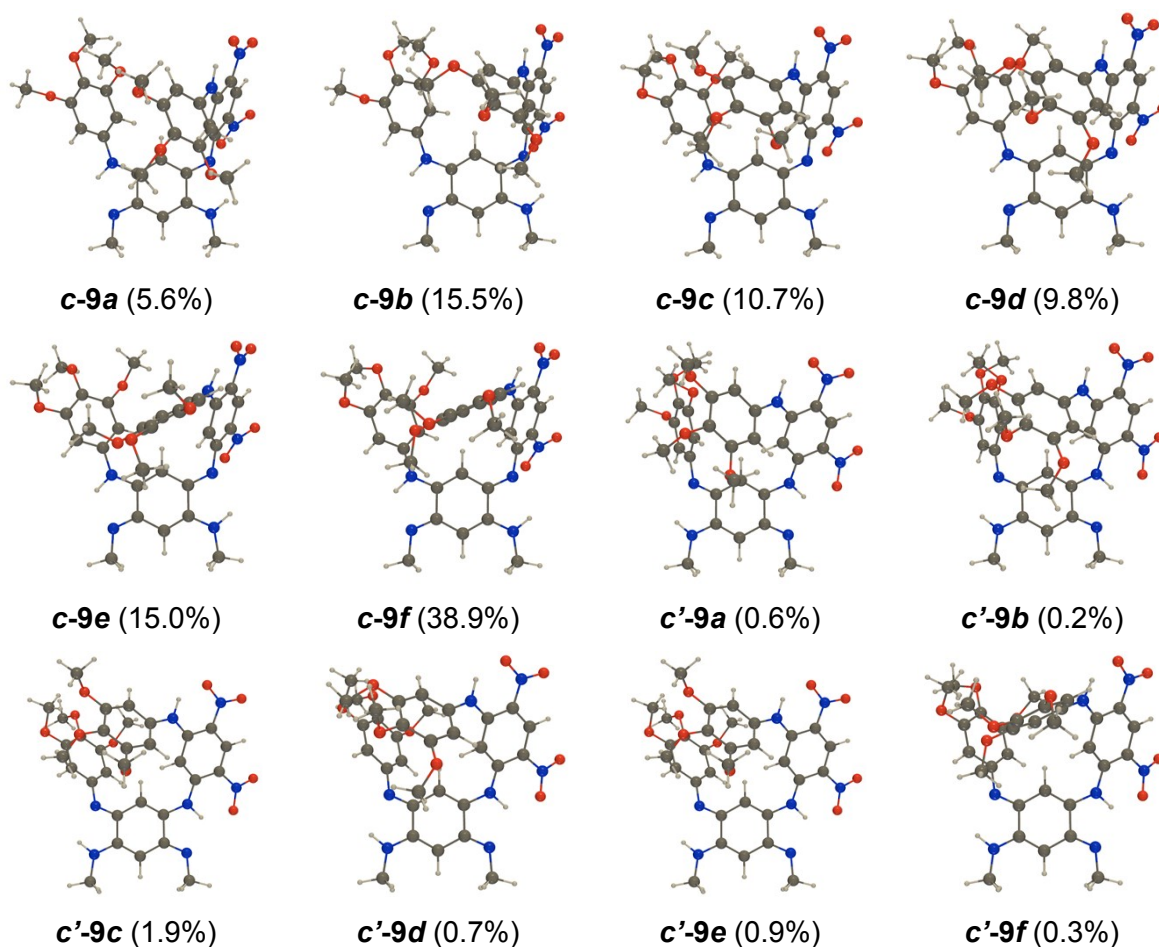
## Results

Theory was first used to screen the possible forms of the system. For **9**, as illustrated in the main text, one can draw one possible zwitterionic form, but two non-equivalent quinoidal forms (**c-9** and **c'-9**). After protonation, four possible isomers can be envisaged [**9+H<sup>+</sup>(a-d)**], whereas only one doubly protonated isomer can be drawn (see **Figure S 12**). For each of these structures, we can build various conformers for these very flexible molecules and we have identified six non-equivalent chemically intuitive ones that were each optimized by DFT (see below for structures).



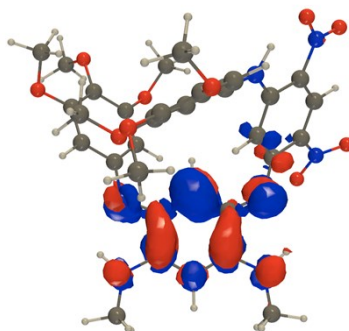
**Figure S 12.** Representation of possible mono-protonated and doubly-protonated structures

The various conformers obtained for the quinoidal neutral structures are displayed in **Figure S 13**, in which we also report the room temperature Boltzmann weight determined in the basis of the computed Gibbs energies. Although given the high flexibility of the decorating methoxy groups, it is not unlikely that we have missed some specific conformers, the results clearly indicate that the **c-9** form should be highly dominant in solution, the **c'-9** structure representing a significantly less stable tautomer. Indeed, the least stable **c-9** conformer found is nevertheless more stable than the most stable **c'-9** conformer. It is also noteworthy that the optical spectral features as given with TD-DFT are very similar for the various conformers of a given structure, e.g., the vertical absorption energies differ by ca. 2 nm only between **c-9f**, **c-9e** and **c-9b**. We therefore discuss only the more stable structure in the following.



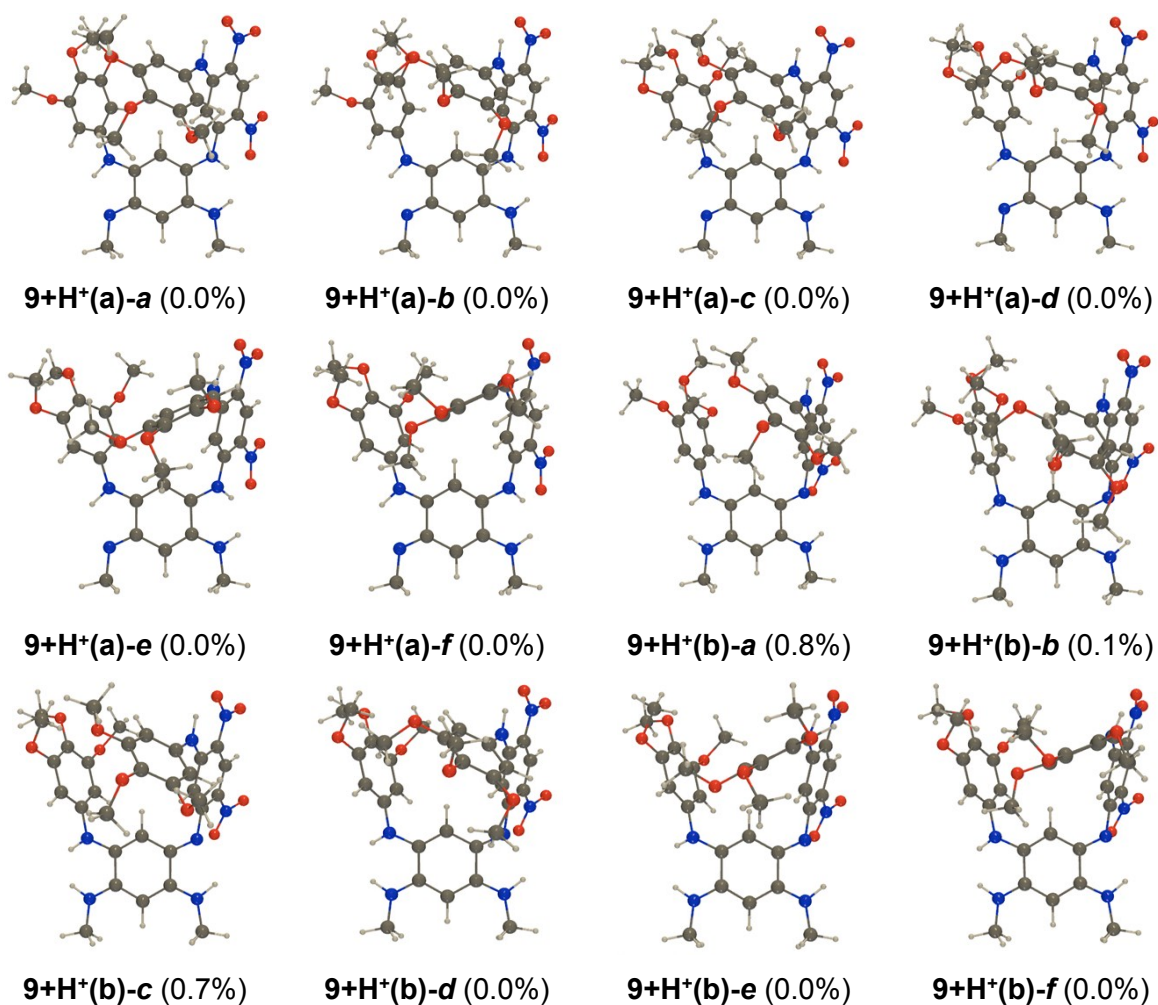
**Figure S 13.** Representation of the obtained (neutral) quinoidal structures and their relative computed percentage of presence at room temperature. Note that the given percentages do not account for the possible presence of **z-9** isomers.

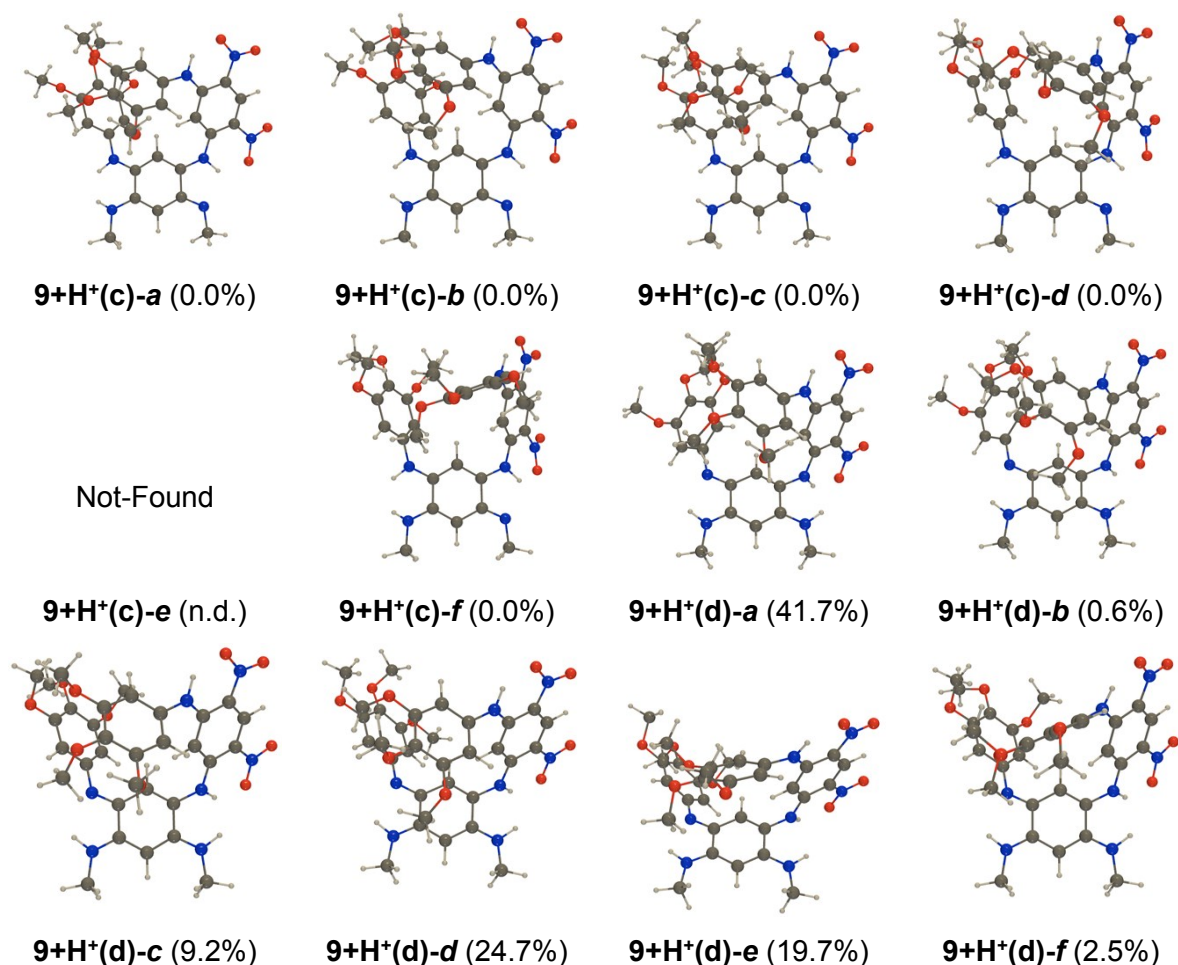
We have also investigated the possible presence of zwitterionic isomers, considering the same six conformations depicted in **Figure S 12**. The most stable **c-9** structure has a conformation of type **e**. On the free energy scale this **c-9e** structure is found to be less stable by 1.3 kcal.mol<sup>-1</sup> than **c-9f**. The relative free energies determined for a zwitterionic and a canonical species are, of course, hard to evaluate with theory. In other words, this 1.3 kcal.mol<sup>-1</sup> value should be interpreted as the fact that theory finds the **z-9** zwitterionic structures slightly (but only slightly) less stable than the **c-9** structures so that depending on the experimental conditions, such **z-9** zwitterion could be more or less accessible. Importantly, CAM-B3LYP predicts that the dipole moment of the zwitterionic structure is significantly larger than the one of the canonical form, which is already very polar (**z-9e**: 17.7 D *versus* **c-9f**: 12.8 D). The EDD of **z-9d** is represented in **Figure S 14** and is it logically located on the zwitterionic moiety with a clear CT character from the negatively charged cyanine to the single bonds and the positively charged cyanine, which is typical of such derivative.



**Figure S 14.** Density difference plots (EDD) for the lowest vertical transitions in **9(z)-d**, located at 628 nm. The colour code and contour threshold are the same as for the Figure shown in the main text.

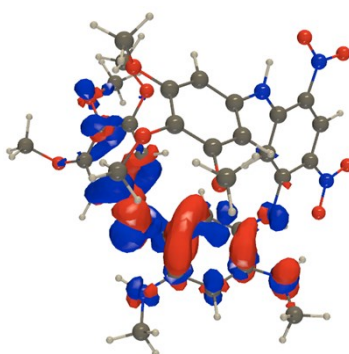
After mono-protonation, four possible tautomers can be envisaged (see **Figure S 12**). From our calculations, see **Figure S 15**, it is crystal-clear that the structures of form **9+H<sup>+</sup>(d)** are strongly favoured, all **9+H<sup>+</sup>(a)** and **9+H<sup>+</sup>(c)** conformers being less stable by more than 10 kcal.mol<sup>-1</sup>, whereas the most stable **9+H<sup>+</sup>(b)** conformer, **9+H<sup>+</sup>(b)-a**, should still represent a tiny fraction of the mixture (< 1%).





**Figure S 15.** Representation of the obtained mono-protonated species **9+H<sup>+</sup>**. See caption of Figure S 13 for more details.

For the most stable structure, namely, **9+H<sup>+</sup>(d)-a**, TD-DFT returns, for the lowest excited-state, a bright transition at 496 nm ( $f = 0.291$ ). As compared to **c-9f** with 472 nm ( $f = 0.034$ ) (*vide supra*), there is therefore a redshift, and more importantly a very large increase of intensity (hyperchromism). The density difference plots for the lowest transition of **9+H<sup>+</sup>(d)-a**, is shown in **Figure S 16** and one can notice a CT character from the 3,4,5-trimethoxyphenyl towards the positively charged tetra-amino cycle.



**Figure S 16.** Density difference plots (EDD) for the lowest vertical transitions in **9+H<sup>+</sup>(d)-a**, located at 496 nm. The colour code and contour threshold are the same as for the Figure shown in the main text.









O	-1.3810950	3.6465380	-3.0459780	N	-5.2283190	1.3462840	0.8975600	C	1.5315780	4.1478550	0.9388650
O	1.3327010	3.9012440	-3.7067120	O	-5.8803660	1.8550550	1.8036430	O	3.7323180	5.0944320	0.6894260
C	3.2334800	3.6908130	-1.6636140	O	-5.7172630	0.5624750	0.0802010	O	1.1504580	5.1443960	1.7930470
O	-1.4363370	2.6136370	-4.0307460	N	-1.7847170	4.3999200	2.1884850	O	-0.6235610	3.0846770	1.1349280
H	-2.2452400	2.8834870	-4.7111700	O	-2.6377990	4.8630880	2.9369380	C	3.4384790	6.4023420	0.1932110
H	-0.4948600	2.5451970	-4.5834890	O	-0.6563070	4.9018970	2.0847060	H	2.4875710	6.7695850	0.5893120
H	-1.6640990	1.6502660	-3.5592420	N	0.0882830	3.0731870	0.3623760	H	4.2528340	7.0447690	0.5307000
C	3.8291840	2.7192510	-2.5236430	H	0.2511130	3.9636710	0.8239280	H	3.4100860	6.3945180	-0.9023610
H	4.8858350	2.9822720	-2.5925220	C	1.0568720	2.6512840	-0.5792750	C	-1.4867310	4.1594970	0.7612280
H	3.7314770	1.7163330	-2.0909180	C	1.5629920	1.3511470	-0.5977590	H	-2.4498290	3.9508170	1.2289310
H	3.3754890	2.7405720	-3.5178950	C	1.5420120	3.6063000	-1.4740930	H	-1.1004220	5.1185410	1.1155750
C	1.1749130	5.2699940	-4.0871990	C	2.5482060	1.0107650	-1.5240180	H	-1.6088670	4.1852550	-0.3277750
H	1.5189460	5.3437470	-5.1200650	H	1.2354950	0.6009110	0.1146190	C	1.6514070	4.9895360	3.1231130
H	0.1240610	5.5710350	-4.0260270	C	2.5442120	3.2723330	-2.3811100	H	2.7461510	4.9929940	3.1288840
H	1.7861630	5.9181670	-3.4495250	H	1.1490310	4.6180920	-1.4738210	H	1.2779410	5.8418480	3.6926850
N	-4.8402930	-2.1767610	-0.9315990	C	3.0660020	1.9701420	-2.4082240	H	1.2788690	4.5097030	3.5668780
O	-5.5199960	-2.4551750	-1.9143260	O	3.0715170	-0.2490550	-1.4950300	H	-3.2458920	-0.6611830	3.8448340
O	-5.3039300	-1.9101100	0.1682770	O	4.0530630	1.6477540	-3.2940490	H	2.2273180	-3.6771590	2.8080810
N	-1.1063680	-3.5299340	-3.5980030	O	3.0454160	4.2505570	-3.1873400				
O	-1.9579340	-3.8843930	-4.4054010	C	2.7533990	-1.0573380	-2.6299810				
O	0.1031480	-3.7209040	-3.7888220	H	3.1026080	-0.5906350	-3.5555310	<b>9+H+(a)-a</b>			
N	0.7319930	-2.5638650	-1.5189530	H	3.2670930	-2.0080060	-2.4808890	C	-0.6293890	-3.4575480	-2.5462710
H	1.0002940	-3.1413570	-2.3102310	H	1.6724300	-1.2315670	-2.6807790	C	-2.0574010	-3.4253580	-2.6653270
C	1.7130240	-2.3358280	-0.5228730	C	2.7907340	4.0854510	-4.5841670	C	-2.8306780	-2.7107660	-1.7907850
C	2.4899040	-3.4237090	-0.1218620	H	3.2546880	4.9396130	-5.0789760	C	-2.1857040	-2.0153530	-0.6537120
C	1.9590210	-1.0673510	0.0026260	H	3.2306880	3.1588020	-4.9570460	C	-0.8141640	-1.9636020	-0.5286660
C	3.4882960	-3.2530280	0.8325440	H	1.7116060	4.0946930	-4.7757970	C	-0.0070780	-2.6856830	-1.4227190
C	2.3196590	-4.4131420	-0.5344920	C	5.3602720	1.5929820	-2.7157880	H	-2.5149610	-3.9238310	-3.5097860
C	2.9407210	-0.9010900	0.9806790	H	5.4050180	0.8319520	-1.9302610	H	-0.3722000	-1.4957150	0.3409840
H	1.4144000	-0.1939820	-0.3401580	H	6.0418060	1.3275840	-3.5251080	N	0.2111560	-4.0624170	-3.3143260
C	3.6977200	-1.9970780	1.4246860	H	5.6383850	2.5703700	-2.3068080	N	-4.1789480	-2.6108980	-1.8825290
O	4.1864540	-4.3500230	1.2463110	H	-4.2784240	-0.2649580	-0.9677450	N	-3.0403670	-1.4895630	0.2691870
O	4.6320550	-1.8281950	2.4058870	H	0.1862320	-4.9808020	-1.7455050	N	1.3001260	-2.8422080	-1.3183910
O	3.0916580	0.3331060	1.5377350					C	-0.2626290	-4.8622470	-4.4148310
C	5.5835890	-4.3345860	0.9417260	<b>9(z)-d</b>				H	0.5792910	-5.3880690	-4.5187050
H	6.0815630	-3.4846270	1.4163480	C	-1.5301190	-1.5828450	3.5982900	H	-1.0115340	-5.6011130	-4.0996880
H	5.9887700	-5.2679670	1.3342930	C	-0.4497690	-2.3171160	4.0288630	C	-4.9186820	-3.2490060	-2.9479170
H	5.7337750	-4.2990690	-0.1431840	C	0.5537430	-2.7249450	3.2036850	H	-4.7634530	-4.3316760	-2.9173470
C	4.3661230	0.9525760	1.3527290	C	0.5388230	-2.3153880	1.17640370	H	-5.9795110	-3.0470770	-2.8030040
H	4.3108480	1.9146840	1.8639470	C	-0.5633680	-1.6089380	1.2990750	H	-4.6171240	-2.8766920	-3.9360990
H	5.1664410	0.3488210	1.7871020	C	-1.6519910	-1.2610810	2.1357400	C	2.2362320	-3.2923520	-0.4034100
H	4.5557590	1.1183310	0.2861470	H	-0.2960930	-2.5837530	5.1311230	C	3.2979800	-3.1693430	-0.0583430
C	4.2260460	-2.3181530	3.6873840	H	-0.6045920	-1.3345440	0.2519870	C	2.1666340	-1.0301090	0.1031700
H	4.0310730	-3.3944730	3.6480640	N	-2.5213670	-1.1572420	4.3610310	C	4.2583580	-2.7379260	0.8491770
H	5.0554140	-2.1183360	4.3671810	N	1.5878870	-3.4597200	3.5704620	H	3.3721740	-4.1745240	-0.4608110
H	3.3316930	-1.7884690	4.0328630	N	1.5775590	-2.7659370	1.0714080	C	3.1346920	-0.5960480	1.0060830
H	-0.1978690	3.7090430	3.6253190	N	-2.7683380	-0.6565810	1.8264390	H	1.4154830	-0.3206440	-0.2242970
H	-3.9236810	-1.1991410	1.3693860	C	-2.6340670	-1.3707810	5.7831010	C	4.1663490	-1.4574310	1.4230740
				H	-1.7808070	-0.9340000	6.3133910	C	-2.7697220	-0.5131370	1.2180590
<b>c'-9f</b>				H	-3.5471420	-0.8931570	6.1364900	C	-1.9447650	0.5510830	0.9081910
C	-1.3565330	-3.7289590	-1.9063650	H	-2.6830150	-2.4402670	0.0167950	C	-3.3704600	-0.5548610	2.5117150
C	-2.5789810	-3.3769480	-2.4227310	C	1.8313250	-3.9607470	4.9017780	C	-1.6487360	1.5935360	1.8150080
C	-3.2698540	-2.1970050	-1.9864510	H	1.0084750	-4.6029510	5.2340980	H	-1.5206600	0.6072730	-0.0864960
C	-2.5668790	-1.3005670	-1.0212990	H	2.7501600	-4.5455210	4.8908230	C	-3.0552640	0.4196870	3.4406350
C	-1.3712900	-1.6583070	-0.4818480	H	1.9459750	-3.1369360	5.6143870	C	-2.2055100	1.4668730	3.1302570
C	-0.7429600	-2.9131050	-0.8175250	C	-3.1824180	-0.4259600	5.0200150	H	-3.4881950	0.3685130	4.4319770
H	-3.0519650	-4.0059910	-3.1668650	C	-3.8305790	0.7872270	0.2414160	O	3.0183040	0.6599530	1.5193080
H	-0.8860350	-1.0349690	0.2583380	C	-3.0808760	-1.3851030	-0.5032890	O	5.0972970	-1.0725280	2.3357240
N	-0.6549060	-4.8094640	-2.2821840	C	-4.3518640	1.0459530	-1.0220540	O	5.2227030	-3.6153750	1.2346820
N	-4.4507880	-1.8057600	-2.3409050	H	-3.9343590	1.5361500	1.0200120	C	4.0886460	1.5592600	1.2037810
N	-3.2958090	-0.1811780	-0.6994830	C	-3.8182630	-1.1334120	-0.3703290	H	3.8874090	2.4741870	1.7621690
N	0.3205300	-3.4158110	-0.2756210	H	-2.6217430	-2.3512490	-0.3221770	H	5.0542170	1.1479900	1.5084960
C	-1.1150720	-5.7660740	-3.2526820	C	-4.2718610	0.0781870	-2.0365830	H	4.0900610	1.7789140	0.1310730
H	-1.2893430	-5.2889400	-4.2249860	C	1.9854640	-2.2605800	-0.1099020	C	6.5618700	-3.2630150	0.8740020
H	-0.3535870	-6.5360400	-3.3780640	C	2.0617520	-0.8777780	-0.3473750	H	7.1955150	-4.0651820	1.2562280
H	-2.0499900	-6.2463320	-2.9343780	C	2.5388470	-3.1103790	-1.1290580	H	6.6563500	-3.2067270	-0.2162280
C	-5.2068730	-2.6110210	-3.2686940	C	2.6565710	-0.3025320	-1.4761990	H	6.8542610	-2.3128880	1.3277720
H	-5.3712680	-3.6307260	-2.8908200	H	1.7085560	-0.2234310	0.4397150	C	4.6070070	-0.9198950	3.6737920
H	-6.1824710	-2.1497230	-3.4363110	C	3.1279960	-2.5817090	-2.2530100	H	5.4657240	-0.6222840	4.2759910
H	-4.7010860	-2.6993400	-4.2412500	C	3.1971760	-1.2069260	-0.9454290	H	3.8331820	-0.1484060	3.7219080
C	0.9414930	-2.8708570	0.8490480	H	3.5365510	-3.2442910	-3.0052750	H	4.2116850	-1.8723970	4.0412000
C	2.3389420	-2.7751480	0.8451970	O	-3.5686860	-2.1215500	-2.7073130	N	-4.2968610	-1.5732980	2.9173730
C	0.2373860	-2.5073450	-2.0075820	O	-4.8233460	0.3164440	-3.2656930	O	-4.6004740	-1.6566790	4.0972220
C	3.0149710	-2.2780860	1.9525550	O	-5.0244230	2.2202830	-1.2198680	O	-4.7667230	-2.3221730	2.0497620
H	2.9037810	-3.0653610	-0.0341330	C	-2.6898530	-1.8546770	-0.3750270	N	-1.9521700	2.4182050	4.1800280
C	0.9183560	-2.0438930	3.1298600	H	-2.7593550	-2.7157330	-4.4667660	O	-2.5375670	2.2897360	5.2454870
O	-0.8404070	-2.6207420	2.0659010	H	-2.9903820	-0.9484360	-4.3347520	O	-1.1452310	3.3293410	3.9653460
C	2.3163800	-1.9234870	3.1186940	H	-1.6578530	-1.7530840	-3.4439280	N	-0.8868550	2.6373990	1.4444380
C	-2.9134870	0.9473870	-0.0319750	C	-4.4517270	3.1015400	-2.1854440	H	-0.6231000	3.2634400	2.2000270
C	-1.6084740	1.4289680	-0.1173880	H	-5.0868850	3.9886210	-2.2015890	C	-0.4475280	2.9460720	0.1346710
C	-3.8408540	1.6907850	0.7705560	H	-3.4367470	3.3870940	-1.8853520	C	-1.3434900	2.9936270	-0.9344850
C	-1.1558760	2.5816160	0.5480950	H	-4.4309040	2.6418530	-3.1770860	C	0.8902450	3.2883690	-0.0524910
C	-0.9272180	0.9284390	-0.7925120	C	-6.0957350	-0.3044220	-3.4586960	C	-0.8867850	3.3368320	-2.2043080
C	-3.4068660	2.7868240	1.4886600	H	-6.4179960	-0.0399850	-4.4672060	H	-2.4017760	2.7969190	-0.7942100
C	-2.0993990	3.2383710	1.4122390	H	-6.0136710	-1.3926920	-3.3715040	C	1.3471580	3.6368600	-1.3217850
H	-4.1095340	3.3164960	2.1192230	H	-6.6219440	0.0738740	-2.7305620	H	1.5924330	3.265	

H	1.7526880	2.0902480	-4.1468650	N	1.1102730	-5.2051210	-0.5561400	C	0.6407870	1.1528240	2.7749540
H	-3.8931700	-2.0157700	0.4706600	N	4.7570550	-2.4563310	1.0538210	C	3.3805780	0.6001580	2.5903850
H	1.6407680	-3.5006030	-2.0304580	N	3.4728910	-0.2999780	0.1138360	H	2.8390610	-1.4583580	2.8216570
H	-4.6096340	-1.7956870	-1.4707650	N	-0.2121850	-3.0890740	-1.2616860	C	1.5492410	2.1900340	2.5839660
<b>9+H+(a)-b</b>											
C	-0.4695640	-3.0442990	-3.0077740	C	1.7438470	-6.4619140	-0.2479310	H	-0.4089390	1.3974850	2.8939430
C	-1.8991700	-3.1474310	-3.0245490	H	1.8967010	-6.5728700	0.8347910	C	2.9305400	1.9316670	2.5259900
C	-2.6627030	-2.6647260	-1.9954660	H	1.1064900	-7.2798620	-0.5865010	C	-2.8204350	0.7593550	-0.7423920
C	-1.9946870	-2.0866750	-0.8071000	H	2.7245280	-6.5569300	-0.7330660	C	-1.5686750	0.5956700	-1.3001740
C	-0.6290200	-1.9047830	-0.7695110	C	5.5711350	-3.5484640	1.5400390	C	-3.5242810	1.9748510	-0.9941740
C	0.1663280	-2.3927730	-1.8184800	H	5.8281370	-4.2202340	0.7159250	C	-0.9164840	1.5988350	-2.0538680
H	-2.3750170	-3.5586760	-3.9050730	H	6.4926720	-3.1367220	1.9508070	H	-1.0526700	-0.3458620	-1.1596680
H	-0.1625430	-1.5278270	0.1313420	H	5.0597960	-4.1265760	2.3215120	C	-2.9003830	2.9890850	-1.6970770
N	0.3588750	-3.4320720	-3.9166250	C	-1.1474410	-2.1832920	-1.8073470	C	-1.6190760	2.8385450	-2.1992630
N	-4.0163980	-2.6947670	-1.9807020	C	-2.4960080	-2.3922520	-1.5206980	H	-3.4237370	3.9233140	-1.8596450
N	-2.8123050	-1.8031560	0.2463110	C	-0.7492200	-1.1372650	-2.6401720	O	1.0700410	3.4652090	2.5553750
N	1.4866560	-2.4242010	-1.8185200	C	-3.4627140	-1.5563490	-2.0759360	O	3.8319500	2.9442900	2.4048400
C	-0.1278810	-4.1037210	-5.0947420	H	-2.8133210	-3.2006070	-0.8697610	O	4.7006720	0.2824140	2.5737010
H	-0.7471650	-3.4316440	-5.7053820	C	-1.7133870	-0.2899700	-3.1785550	C	1.2583420	4.1663990	1.3217460
H	0.7187940	-4.4288300	-5.7008690	H	0.2867500	-0.9869350	-2.9224800	H	0.8183340	5.1532000	1.4668000
H	-0.7389830	-4.9816370	-4.8449790	C	-3.0803240	-0.5056000	-2.9296350	H	2.3199780	4.2642780	1.0797960
C	-4.7810290	-3.2320340	-3.0830910	C	2.9753140	0.9905390	-0.0063700	H	0.7351320	3.6489310	0.5090380
H	-4.5205270	-4.2823300	-3.2451340	C	1.7146420	1.3134670	0.4578880	C	5.4534700	0.6904320	1.4254290
H	-5.8398400	-3.1719910	-2.8334280	C	3.7726000	2.0258800	-0.5843520	H	6.4415290	0.2456830	1.5480190
H	-4.6025160	-2.6769780	-4.0136300	C	1.1529760	2.6062440	0.3454480	H	4.9897700	0.3029900	0.5119270
C	2.4229330	-1.9567070	-0.8767910	H	1.1264970	0.5490200	0.9486950	H	5.5354020	1.7776560	1.3722980
C	3.5512150	-2.7506020	-0.6608840	C	3.2371070	3.2907990	-0.7413480	C	4.0057530	3.7351240	3.5878140
C	2.2790080	-0.7321020	-0.2226960	C	1.9555410	3.5924120	-0.3158940	H	4.7544730	4.4878000	3.3393310
C	4.5071390	-2.3562310	0.2686140	H	3.8340620	4.0661320	-1.2053060	H	3.0686070	4.2224350	3.8721710
H	3.6802440	-3.6960960	-1.1777700	O	-1.3048210	0.6929640	-4.0301210	H	4.3694050	3.1107890	4.4103560
C	3.2447480	-0.3311790	0.6989840	O	-4.0310990	0.2864480	-0.9641880	N	-4.8646650	2.2167650	-0.5070720
H	1.4633040	-0.0532580	-0.4459620	O	-4.7662220	-1.8485500	-1.8336150	O	-5.3216550	3.3453670	-0.6294570
C	4.3435600	-1.1604670	0.9909180	C	-1.5071510	2.0286880	-3.5582690	O	-5.5142340	1.2636750	-0.0895270
C	-2.5409700	-0.9600810	1.3166250	H	-1.1401730	2.6864360	-4.3466800	N	-1.0626100	3.9699030	-2.8934650
C	-1.8697800	0.2286010	1.1081750	H	-2.5666960	2.2257830	-3.3731630	O	-1.7606490	4.9587440	-3.0627570
C	-2.9814080	-1.2713690	2.6372290	H	-0.9608420	2.1969350	-2.6423610	O	0.1072300	3.8993270	-3.2845420
C	-1.5713540	1.1433960	2.1430540	C	-5.5509050	-0.8290530	-1.2008170	H	0.2979330	1.3717100	-2.5810920
H	-1.5741180	0.4892520	0.0994670	H	-6.5226320	-1.2850170	-1.0075450	N	0.7447140	2.1755150	-3.0123410
C	-2.6541240	-0.4252210	3.6810080	H	-5.0895730	-0.5261920	-0.2549320	C	0.9454950	0.1092270	-2.6518480
C	-1.9497890	0.7469720	3.4673950	H	-5.6692800	0.0374450	-1.8551680	C	2.2063690	-0.0411010	-2.0803130
H	-2.9619920	-0.6788660	4.6879530	C	-4.2484870	0.0518180	-4.8932750	C	0.3378510	-0.9517610	-3.3226120
C	3.0551680	0.8511540	1.3475750	H	-5.0302470	0.7482380	-5.1980060	C	2.8778000	-1.2582340	-2.1966570
O	5.2680930	-0.8298910	1.9296280	H	-3.3366170	0.2429280	-5.4664940	H	2.6767420	0.7726600	-1.5377600
O	5.5396620	-3.2010690	0.5284510	H	-4.5870500	-0.9765760	-0.5064110	C	1.0077270	-2.1668670	-3.4423660
C	4.0840980	1.8333840	1.1750260	N	5.1246550	1.8313190	-1.0262050	H	-0.6351460	-0.7899810	-3.7899830
H	3.7736910	2.6991500	1.7608400	O	5.6687330	2.7174540	-1.6656060	C	2.2979070	-2.3236730	-2.9075630
H	5.0484800	1.4690040	1.5366750	O	5.6981600	0.7737600	-0.7281400	O	4.1295230	-1.3513470	-1.6659480
H	4.1621620	2.1143010	0.1194130	N	1.5047840	4.9398380	-0.5461920	O	0.9525010	-3.5063400	-3.0832570
C	6.8442270	-2.7100800	0.2046650	O	2.2851350	5.7478640	-1.0276050	O	0.4274650	-3.1535180	-4.1804380
H	7.5389760	-3.5063050	0.4734670	O	0.3388900	5.2275500	-0.2532780	C	4.3156540	-2.3606160	-0.6686510
H	6.9152940	-2.5103240	-0.8703050	N	-0.0710010	2.8731100	0.8323680	H	4.1318810	-3.3592920	-1.0719180
H	7.0770840	-1.8065740	0.7732910	H	-0.4337140	3.7924360	0.7595080	H	5.3537260	-2.2753030	-0.3459690
C	4.7981710	-0.8745670	3.2826690	C	-0.8678260	2.0242910	1.6385470	H	3.6517430	-2.1741660	0.1829850
H	5.6487340	-0.5949070	3.9066940	C	-0.3536660	1.4475990	2.8003570	C	0.0896680	-4.3455150	-3.4678050
H	3.9777500	-0.1680600	3.4398380	C	-2.2063380	1.8438670	1.2942030	H	-0.3580310	-5.0179000	-4.2004800
H	4.4717870	-1.8896650	3.5305580	C	-1.1702090	0.6479800	3.5958430	H	0.9782010	-4.8099660	-3.0328920
N	-3.7547230	-2.4382130	2.9528520	H	0.6667030	1.6316020	3.1207450	H	-0.6425660	4.1224540	-2.6829560
O	-3.9119690	-2.7411330	4.1253050	C	-3.0255150	1.0490930	2.0936330	C	4.0296370	-3.4517180	-4.0258320
O	-4.2485590	-3.0868420	2.0203700	H	-2.6223480	2.2999370	0.4013790	H	4.8010720	-2.7483440	-3.6974000
N	-1.6650820	1.5461460	4.6298050	C	-2.5085560	0.4145200	3.2351940	H	4.4434970	-4.4595810	-4.0716630
O	-2.1032310	1.1871560	5.7131560	O	-0.6201000	0.0572150	4.6951780	H	3.6553820	-3.1617290	-5.0130460
O	-0.9804520	2.5648360	4.4880050	O	-3.3206690	-0.3836410	3.9839410	H	-4.3939940	-0.1685570	0.1183100
N	-0.9686200	2.3128270	1.8703070	C	-4.3076520	0.8283900	1.6897520	H	0.4473990	-1.9346660	3.7914500
H	-0.6779310	2.8507530	2.6813450	O	-1.1538370	0.4813440	5.9541720	H	-4.8052440	-2.1488390	-0.0943840
C	-0.7559980	2.8638600	0.5809410	H	-2.2216110	0.2581050	6.0264440	<b>9+H+(a)-e</b>			
C	0.5291490	3.2671940	0.2277760	H	-0.6059010	-0.0744080	6.1751740	C	0.8154480	-2.6678290	3.2916100
C	-1.8222110	0.3044070	-0.3006970	H	-0.9856100	1.5549700	6.0923540	C	2.1342360	-2.2571310	3.6786420
C	0.7512870	3.8675910	-1.0098320	H	-0.5230750	1.3672230	2.5411740	C	2.9204670	-1.4979330	2.8544210
H	1.3669260	3.1058890	0.8969330	H	-6.2752120	1.1031010	3.0729170	C	2.4119060	-1.1164890	1.5164470
C	-1.6012910	3.6421500	-1.5393450	H	-5.2649260	0.9352740	3.5434750	C	1.1342260	-1.4463100	1.1176980
H	-2.8345020	2.7626530	-0.0288650	H	-5.2324520	2.4579600	2.5936130	C	0.3293540	-2.2520650	1.9371670
C	-0.3163990	4.0847090	-1.8974480	C	-3.0370420	-1.7825130	3.8825450	H	2.4794040	-2.5081520	4.6731420
O	2.0125200	4.2962340	-1.3013460	H	-2.0211980	-2.0008820	4.2259290	H	0.7858490	-1.1523230	0.1376640
O	-0.1298920	4.7021240	-3.0982790	H	-3.7600110	-2.2861330	4.5251660	N	-0.0309140	-3.3532400	3.9808600
O	-2.6768420	3.8795550	-2.3414870	H	-3.1652210	-2.1233800	2.8491190	N	4.1610990	-1.0620190	3.1847990
C	2.6419010	3.6546490	-2.4137080	H	4.4899280	-0.3332160	0.0045510	N	3.2994950	-0.4629300	0.7147990
H	2.0800820	3.8190460	-3.3371030	H	-0.4403060	-4.0897430	-1.2671470	N	-0.8566010	-2.7298080	1.6062750
H	3.6330360	4.1015810	-2.4979890	H	4.8726680	-1.5804580	1.5431160	C	0.3242060	-3.8328170	5.2921170
H	2.7410500	2.5797400	-2.2229650	<b>9+H+(a)-d</b>				H	0.4857440	-2.9988400	5.9893900
C	-2.6831450	3.1852110	-3.5904630	C	-1.7063050	-2.6431140	3.0609000	H	-0.4859360	-4.4503110	5.6823370
H	-3.6008690	3.4844990	-4.0977590	C	-2.9902470	-2.9312200	2.4878980	H	1.2442490	-4.4323650	5.2733030
H	-1.8171380	4.5933340	-4.1981770	C	-3.5038720	-2.1862410	1.4608050	C	4.7554980	-1.3565790	4.4692570
H	-2.6975720	2.1019250	-3.4214560	C	-2.7412640	-1.0178060	0.9612780	H	4.8402730	-2.4389090	4.6043350
C	0.0900850	6.1146460	-3.0100740	C	-1.4828860	-0.7309580	1.4470650	H	5.7557810	-0.9248380	4.4953960
H	0.9925350	6.3331890	-2.4311840	C	-0.9450930	-1.4843260	2.4997870	H	4.1672620	-0.9416940	5.2986030
H	0.2136050	6.4666570	-0.0348160	H	-3.5269260	-3.8010480	2.8430150	C	-1.5667950		











C	3.3675630	2.6716320	-0.4654990	H	6.2511890	1.8629150	-0.6168590	H	-2.3170570	-0.7842790	-3.5905410
C	2.1976680	1.1974980	1.6603760	H	4.5949730	1.3663250	-1.0657640	C	-1.3253670	-1.8823840	-2.1006050
H	1.5655760	-0.1462000	0.1249880	H	4.8791250	2.9424660	-0.2465260	C	-0.0967460	-2.1443800	-2.7042730
C	3.4499310	3.1311480	0.8381440	C	4.5283750	4.1015160	3.1182660	C	-1.7845900	-2.6881800	-1.0585240
C	2.8791890	2.4424920	1.8918790	H	5.0231900	5.0340400	2.8456930	C	0.6734890	-3.2228580	-2.2278790
H	3.9740710	4.0572220	1.0378250	H	3.7398390	4.2977180	3.8503110	H	0.2773750	-1.5162290	-3.5064480
O	-2.4806520	1.8969120	1.5113480	H	5.2618010	3.4027860	3.5335440	C	-1.0133210	-3.7633040	-0.6231630
O	-4.8639070	3.0405530	4.0590480	N	-5.2006840	1.7471310	0.9064080	H	-2.7524080	-2.5166530	-0.5987840
O	-5.7676350	2.1969420	-2.0110280	O	-5.9751040	2.6719830	0.7037600	C	0.2140680	-4.0570080	-1.2402630
C	-3.3141800	1.5844850	2.6324910	O	-5.3255020	0.9829650	1.8772780	O	1.8445830	-3.4818930	-2.9224640
H	-2.7680030	1.9203430	3.5143990	N	-3.0603100	3.2396230	-3.1029850	O	0.9391470	-5.1332030	-0.8198380
H	-4.2756710	2.1013650	2.5726710	O	-3.9957570	4.0259590	-3.1742160	O	-1.5254030	-4.5786100	0.3428820
H	-3.4772040	0.5030940	2.6918940	O	-2.1293440	3.2392960	-3.9182060	C	3.0294510	-3.3492090	-2.1331190
C	-6.9842900	1.8829380	-1.3278410	N	-1.0535560	1.1079670	-2.8228830	H	3.0229380	-4.0438630	-1.2887110
H	-7.7795110	2.3757480	-1.8881430	H	-1.0033460	1.8398200	-3.5251980	H	3.8625330	-3.5810070	-2.7975630
H	-7.1514070	0.7998570	-1.3321180	C	-0.0666520	0.0924260	-2.8351620	H	3.1277640	-2.3196670	-1.7699480
H	-6.9680590	2.2577640	-0.3013020	C	-0.4237710	-1.2560020	-2.8602700	C	-0.8140940	-4.5847280	1.5813970
C	-4.2051410	4.2969190	0.6693550	C	1.2745460	0.4663140	-2.8952270	H	-1.3415050	-5.2853900	2.2301750
H	-4.9203990	4.9224940	1.2034000	C	0.5668700	-2.2336560	-2.9010660	H	0.2181420	-4.9162660	1.4410750
H	-3.2979600	4.1722480	1.2667530	H	-1.4642140	-1.5641850	-2.8721760	H	-0.8313250	-3.5855180	2.0336040
H	-3.9600640	4.7562080	-0.2934410	C	2.2668420	-0.5112920	-2.9417960	C	0.9017620	-6.2524690	-1.7121340
N	3.9998350	3.4674620	-1.4725450	H	1.5637770	1.5123680	-2.8882300	H	1.3163720	-5.9853480	-2.6890220
O	4.5334730	4.5201500	-1.1497350	C	1.9254270	-1.8731100	-2.9134860	H	1.5130820	-7.0293520	-1.2514250
O	3.9909170	3.0630320	-2.6455930	O	0.1844330	-3.5435470	-2.8686650	H	-0.1258860	-6.6127980	-1.8274090
N	3.0217540	3.0295160	3.1930360	O	2.9120480	-2.8147260	-2.9292110	H	2.3866570	-1.5313090	3.6535840
O	3.6914320	4.0472550	3.3138990	O	3.5699760	-0.1130120	-2.9180480	H	-3.6628770	0.4689180	3.0574370
O	2.4573830	2.4882220	4.1521990	C	0.4881050	-4.2998550	-4.0453630	H	-2.7275960	2.3890460	2.0322940
N	1.6741750	0.4682060	2.6659990	H	1.5655590	-4.3301510	-4.2283340				
H	1.6820840	0.9237020	3.5736800	H	0.1142620	-5.3076060	-3.8610860				
C	1.1198180	-0.8297250	2.5728370	H	-0.0266530	-3.8715350	-4.9124020	<b>9+H+(d)-e</b>			
C	-0.1205810	-1.0689430	3.1621250	C	4.3230640	-0.4018520	-4.0990440	C	-0.5981890	1.2648020	2.9860480
C	1.8147670	-1.8690080	1.9520830	H	5.3285460	-0.0204940	-3.9164520	C	0.5097210	0.6208250	3.5322400
C	-0.6675280	-2.3509020	3.1410320	H	4.3630570	-1.4780760	-4.2858680	C	0.8690110	-0.6576670	3.0935720
H	-0.6773290	-0.2673420	3.6364400	H	3.8873050	1.0153010	-4.9615080	C	0.1184920	-1.3070610	2.0050230
C	1.2658060	-3.1483390	1.9237100	C	3.1025830	-3.4938290	-1.9668120	C	-0.9846160	-0.7251500	1.4975630
H	2.7982390	-1.7136820	1.5209620	H	2.1961120	-4.0325510	-1.3914960	C	-1.4400360	0.5721870	1.9696820
C	0.0300890	-3.4108570	2.5380390	H	3.9164120	-4.2018030	-1.8464000	H	1.0876730	1.1033450	4.3098320
O	-1.8556010	-2.5504180	3.7794010	H	3.3855050	-2.7818330	-0.9022190	H	-1.5075370	-1.1943670	0.6717450
O	-0.4675250	-4.6813250	2.5319610	H	1.6895990	-3.3577000	3.1513840	N	-0.9921800	2.4759310	3.3459390
O	2.0035740	-4.1574570	1.3775110	H	-3.9613300	-0.1524400	1.8629050	N	1.8894090	-1.3342740	3.6000980
C	-2.9380960	-3.0047560	2.9629000	H	-3.9613300	-0.1524400	1.8629050	N	0.5938540	-2.5490340	1.5254920
H	-2.7279380	-3.9878300	2.5339200	H	-4.3592070	-2.2501620	1.3966110	N	-2.4641840	1.2290560	1.5415270
H	-3.8056830	-3.0634820	3.6208880					C	-0.3305110	4.3059220	4.3255850
H	-3.1362130	-2.2836400	2.1616650	<b>9+H+(d)-d</b>				H	0.7093420	3.4957520	4.0380850
C	1.4568390	-4.7457070	0.1966730	C	0.5202710	-0.8843360	3.5127990	H	-0.8575210	4.2570430	4.3865440
H	2.1489180	-5.5361600	-0.0968340	C	-0.8111190	-0.9036420	3.9250100	H	-0.3447220	2.8319130	5.3131260
H	0.4692080	-5.1726870	0.3900810	C	-1.7604210	-0.0948720	3.2925300	C	2.7533090	-0.8638030	4.6609840
H	1.3944720	-4.0000390	-0.6057040	C	-1.3570440	0.7988420	2.1975560	H	2.1762280	-0.6631070	5.5694770
C	-0.3520750	-5.3613080	3.7866250	C	-0.0633200	0.8673930	1.8172720	H	3.4889200	-1.6373230	4.8745160
H	-0.9097990	-4.8349800	4.5676420	C	0.9566310	0.0500730	2.4420020	H	3.2758410	0.0494320	4.3588240
H	-0.7769380	-6.3543280	6.3352010	H	-1.1187590	-1.5660160	4.7236710	C	-3.4472870	0.7152290	0.7111070
H	0.7004280	-5.4511480	4.0752570	H	0.2118600	1.4995210	0.9805850	C	-3.9704410	1.5802030	-0.2617120
H	-2.1233370	-2.3980470	-3.8222750	N	1.4592040	-1.6513350	4.0477140	C	-3.9811950	-0.5765580	0.8542290
H	2.9922030	1.5636890	-2.7297160	N	-3.0487960	-0.1147440	3.6117340	C	-4.9779930	1.1476190	-1.1125000
H	3.9275900	-0.6007830	-2.7991950	N	-2.3701520	1.5533430	1.5697560	H	-3.5801740	2.5874320	-0.3621250
				N	2.2130080	-0.0026180	2.1283690	C	-5.0162730	-0.9972050	0.0272160
				C	1.2412120	-2.6193160	5.0971110	H	-3.6486660	-1.2429710	1.6432520
				H	0.5149240	-3.3787550	4.7865770	C	-5.5384410	-1.0336320	-0.9566510
				H	2.1883110	-3.1098800	3.3174210	C	1.4805150	-2.6066330	0.4916730
				H	0.8770460	-2.1329330	6.0085600	C	2.0579950	-1.5257140	-0.0677450
				C	-3.6342290	-0.9443430	4.6421900	C	1.8770480	-3.9362280	-0.0300160
				H	-3.1983460	-0.7131710	5.6192020	C	3.0137000	-1.5625760	-1.0970260
				H	-4.7040260	-0.7454740	4.6788740	H	1.7623990	-0.5561310	0.3118110
				H	-3.4778350	-2.0058600	4.2333350	C	2.8354090	-4.0017060	-1.0261910
				C	2.8809960	0.8714280	1.3000410	C	3.4169060	-2.8641790	-1.5562310
				C	3.9496060	0.3383070	0.5634910	H	3.1376470	-4.9707090	-1.4030220
				C	2.6047390	2.2533690	1.2266430	O	-5.5592190	-2.2287470	0.2461900
				C	4.6666680	1.1431580	-0.3090050	O	-6.5663970	-5.0093830	-1.7165030
				H	4.1938440	-0.7152580	0.6439950	O	-5.4902850	2.0249760	-2.1018030
				C	3.3712090	3.0748340	4.0898900	C	-5.3815230	-3.1741340	-0.8135890
				H	1.8707930	2.6877340	1.49936840	H	-5.8572720	-4.0957570	-0.4774100
				C	4.3882320	2.5208690	-0.4091050	H	-5.8533570	-2.8277280	-1.7372300
				C	-2.7174740	1.4493910	0.2529170	H	-4.3134380	-3.3540630	-0.9843380
				C	-2.2568140	0.3960440	0.3654950	C	-5.2754650	1.6866630	-3.3905530
				C	-3.5902020	2.4064010	-0.3661200	H	-5.7513560	2.4755960	-3.9739030
				C	-2.5885430	0.2269490	-1.8851040	H	-4.2020510	1.6655600	-3.6112280
				H	-1.5981820	-0.3325870	-0.0776640	H	-5.7289930	0.7222680	-3.6337970
				C	-3.9246970	2.2677630	-1.7025120	C	-7.8384400	-0.6331130	-1.1111580
				C	-3.4468920	1.2225600	-2.4700990	H	-8.5436870	-0.9322790	-1.8867740
				-4.5745630	3.0023290	-2.1610330	H	-7.8039730	-1.3919890	-0.3245700	
				O	3.2544180	4.4184450	0.3654950	H	-8.1401010	0.3314640	-0.6904500
				O	5.2018110	3.2550870	-1.1891560	N	1.3321750	-5.1761710	0.4305320
				O	5.7082960	0.5937160	-0.9928630	O	1.7685100	-6.2236570	-0.0290030
				C	2.2644690	5.0382450	1.1723910	O	0.4297730	-5.1502120	1.2801200
				H	2.3394650	6.1050370	0.9642620	N	4.4054330	-3.0651820	-2.5749450
				H	1.2616560	4.6843890	0.9082430	O	4.6310570	-4.2034170	-2.9660920
				H	2.4552350	4.8606870	2.2364910	O	5.0037530	-2.0787700	-3.0236490
				C	5.5533720	0.5230610	-2.4111520	N	3.5243160	-0.4278800	-1.6143430
				H	6.4482950	0.0266040	-2.7878040	H	4.2970460	-0.5596090	-2.2598470
				H	4.6697430	-0.0721540	-1.9155550	C	3.0934720	0.8918310	-1.3405430
				H	5.4748440	1.5199010	-2.8521880	C	4.0498290	1.8526880	-1.0159550
				C	4.6591780	4.2841230	-2.0271620	C	1.7509860	1.2517910	-1.4693960
				H	5.3837670	4.4124690	-2.8323800	C	3.6607020	3.1721330	-0.7936420
				H	3.6972540	3.9727290	-2.4444810	H	5.099482		

H	5.6310920	5.7533180	-0.9297610
H	5.2085820	4.7102900	-2.3156300
C	-0.3588110	3.7541390	-2.3239280
H	-1.4375850	3.8844230	-2.2272270
H	0.1420150	4.7205690	-2.2238920
H	-0.1305340	3.3110290	-3.2999910
C	1.9082580	5.1725620	0.7777550
H	2.9181410	5.0991680	1.1932890
H	1.5635580	6.2062230	0.8271890
H	1.2230620	4.5297950	1.3419850
H	-1.8267020	2.8131830	2.8765460
H	0.0963020	-3.4037490	1.7643440
H	2.0467880	-2.2611670	3.2227360

**9+H+(d)-f**

C	-0.8427000	0.0261260	3.9155350
C	0.3953570	-0.3399480	4.4382830
C	1.3025160	-1.0688960	3.6641790
C	0.9431200	-1.4956730	2.2997710
C	-0.2601810	-1.1668550	1.7831080
C	-1.2323880	-0.4083880	2.5434540
H	0.6723120	-0.0319310	5.4377780
H	-0.5074570	-1.4576100	0.7686190
N	-1.7362910	0.7392310	4.5812230
N	2.5208700	-1.3755850	4.0886070
N	1.8985330	-2.2555090	1.6053110
N	-2.4092950	-0.0461620	2.1536560
C	-1.5671540	1.2391280	5.9258990
H	-0.6982220	1.9027240	5.9913800
H	-2.4587910	1.8007730	6.2005220
H	-1.4379480	0.4144370	6.6348560
C	3.0602380	-1.0219390	5.3841700
H	2.4589180	-1.4618000	6.1857470
H	4.0751690	-1.4102230	5.4514330
H	3.0857930	0.0655660	5.5112760
C	-3.0274000	-0.4737520	0.9883970
C	-3.7935790	0.4709730	0.2897210
C	-2.9855200	-1.8037840	0.5350790
C	-4.4541950	0.1121730	-0.8767130
H	-3.8418930	1.4981430	0.6343560
C	-3.6944700	-2.1763030	-0.6009240
H	-2.4764120	-2.5774190	1.1004790
C	-4.4448620	-1.2261600	-1.3183690
C	2.2340430	-2.0857690	0.2862570
C	2.1153050	-0.8444280	-0.3293040
C	2.7642770	-3.1687550	-0.4878760
C	2.4844900	-0.5986020	-1.6634700
H	1.7591570	-0.0117630	0.2629680
C	3.1268930	-2.9568180	-1.8067700
C	3.0016770	-1.7183440	-2.4058220
H	3.5222120	-3.7827100	-2.3844110
O	-3.7200890	-3.4934650	-0.9474600
O	-5.1338960	-1.6239810	-2.4185920
O	-5.1855650	1.0588440	-1.5315640
C	-3.0738530	-3.8179730	-2.1809020
H	-3.1810460	-4.8963450	-2.3030270
H	-3.5460780	-3.3013630	-3.0203940
H	-2.0094810	-3.5604350	-2.1305950
C	-4.6964280	1.4104540	-2.8295470
H	-5.3835420	2.1628860	-3.2177350
H	-3.6907630	1.8381650	-2.7510900
H	-4.6826650	0.5428220	-3.4955560
C	-6.5620990	-1.5876680	-2.2969260
H	-6.9527970	-1.9403790	-3.2516610
H	-6.8873860	-2.2585550	-1.4953260
H	-6.9129760	-0.5707200	-2.1019710
N	2.9418790	-4.4937400	0.0237310
O	3.3148470	-5.3777570	-0.7348310
O	2.7152470	-4.7062570	1.2254840
N	3.4295920	-1.6302110	-3.7741020
O	3.7797840	-2.6512070	-4.3509000
O	3.4307480	-0.5229910	-4.3271580
N	2.3885660	0.6267770	-2.2158200
H	2.8031740	0.6983390	-3.1409770
C	1.9032060	1.8192490	-1.6336560
C	0.6658080	1.8855620	-0.9917350
C	2.6805000	2.9693820	-1.7778000
C	0.2119060	3.1047860	-0.4903080
H	0.0197740	1.0185130	-0.9038700
C	2.2142180	4.1922700	-1.3027450
H	3.6477670	2.9305230	-2.2686120
C	0.9653020	4.2770460	-0.6664450
O	-1.0248500	3.1395910	0.0849160
O	0.5082250	5.4865930	-0.2302120
O	2.9628950	5.3054820	-1.5377160
C	-1.0567430	3.5421260	1.4560810
H	-0.6908420	4.5647650	1.5784190
H	-2.1012460	3.4818270	1.7642130
H	-0.4565800	2.8565180	2.0654560
C	3.4878200	5.9550570	-0.3775840
H	4.0535580	6.8130380	-0.7425480
H	2.6842810	6.2937630	0.2814230
H	4.1598900	5.2784150	0.1626830
C	-0.4982680	6.0668770	-1.0664370
H	-1.3842600	5.4255090	-1.1108070
H	-0.7577650	7.0238180	-0.6119970
H	-0.1063280	6.2330180	-2.0753670
H	-2.5972340	0.9249150	4.0761050
H	2.0712060	-3.2074680	1.9369540
H	3.1317440	-1.8391080	3.4277070

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