

## Supporting Information

# Through-Space Effects of Substituents Dominate Molecular Electrostatic Potentials of Substituted Arenes

Steven E. Wheeler\* and K. N. Houk\*  
*Department of Chemistry and Biochemistry*  
*University of California, Los Angeles, CA 90095*  
Email: [swhee2@chem.ucla.edu](mailto:swhee2@chem.ucla.edu)  
Email: [houk@chem.ucla.edu](mailto:houk@chem.ucla.edu)

<b>Contents</b>	<b>Page</b>
Figure S1. HF, B3LYP, and MP2 ESPs for C <sub>6</sub> H <sub>5</sub> CN	S2
Figure S2. Constrained and fully relaxed ESPs for C <sub>6</sub> H <sub>5</sub> CN	S2
Cartesian Coordinates of optimized geometries:	
Monosubstituted Benzenes	S3
Polysubstituted Benzenes	S11
Cryptolepines	S13
Klärner Guest Molecules	S14
Supramolecular Synthons	S17

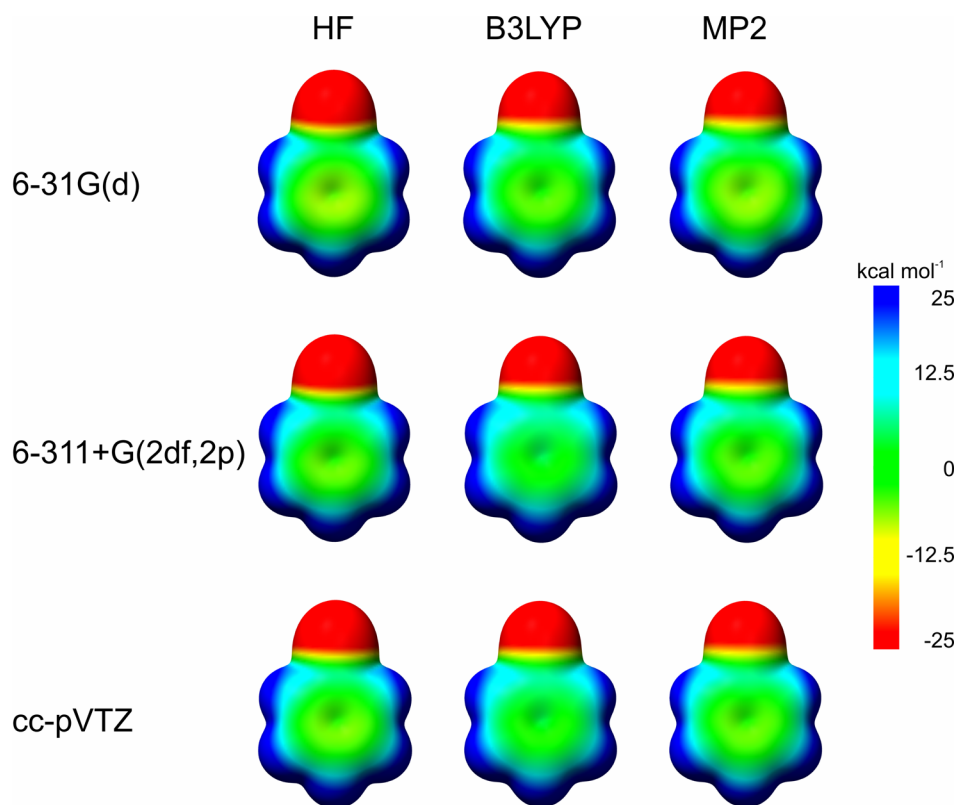


Figure S1. ESP plots for cyanobenzene at various levels of theory mapped onto the corresponding electron density isosurfaces ( $0.001 \text{ e/au}^3$ ).

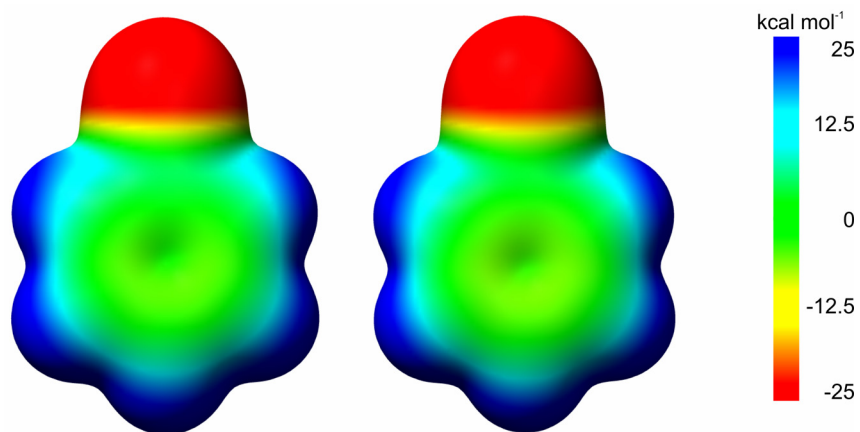


Figure S2. B3LYP/6-31G(d) ESP plots for cyanobenzene at the constrained geometry (left, carbons and hydrogens fixed at their corresponding positions in benzene) and the fully relaxed geometry (right), mapped onto the corresponding electron density isosurfaces ( $0.001 \text{ e/au}^3$ ).

## Optimized Cartesian Coordinates (Angstrom)

### Monosubstituted Benzenes

14  
C6H5BF2

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
B	0.0000000	2.9418060	-0.0001520
F	1.1325220	3.6403670	-0.0003410
F	-1.1325220	3.6403670	-0.0003410

4  
HBF2 as in C6H5BF2

H	0.0000000	1.7539420	0.0001180
B	0.0000000	2.9418060	-0.0001520
F	1.1325220	3.6403670	-0.0003410
F	-1.1325220	3.6403670	-0.0003410

14  
C6H5CCH

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
C	0.0000000	2.8271110	0.0000000
C	0.0000000	4.0368540	0.0000000
H	0.0000000	5.1031920	0.0000000

5  
HCCH as in C6H5CCH

H	0.0000000	1.7602190	0.0000000
C	0.0000000	2.8271110	0.0000000
C	0.0000000	4.0368540	0.0000000
H	0.0000000	5.1031920	0.0000000

15  
C6H5CF3

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
C	-0.0000070	2.8970100	0.0637840
F	-1.0902960	3.4276100	-0.5346890
F	0.0000000	3.3435180	1.3418350
F	1.0903280	3.4276270	-0.5347240

5  
HCF3 as in C6H5CF3

H	0.0000130	1.8073230	0.0132430
C	-0.0000070	2.8970100	0.0637840
F	-1.0902960	3.4276100	-0.5346890
F	0.0000000	3.3435180	1.3418350
F	1.0903280	3.4276270	-0.5347240

16  
C6H5CH2OH

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
C	0.0047160	2.9130060	0.0327040
H	0.1143770	3.2707700	1.0636620
H	-0.9612540	3.2951270	-0.3352670
O	1.0942290	3.4977510	-0.6706660
H	1.0576040	3.1662940	-1.5821600

6  
HCH2OH as in C6H5CH2OH

H	0.0080630	1.8141870	0.0194620
C	0.0047160	2.9130060	0.0327040
H	0.1143770	3.2707700	1.0636620
H	-0.9612540	3.2951270	-0.3352670
O	1.0942290	3.4977510	-0.6706660
H	1.0576040	3.1662940	-1.5821600

15  
C6H5CH3

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
C	-0.0000260	2.9088660	0.0321440
H	-0.8849560	3.3221760	-0.4640200
H	-0.0019270	3.2848340	1.0643490
H	0.8867330	3.3221300	-0.4607670

5  
HCH3 as in C6H5CH3

H	-0.0000050	1.8181880	0.0058740
C	-0.0000260	2.9088660	0.0321440
H	-0.8849560	3.3221760	-0.4640200
H	-0.0019270	3.2848340	1.0643490
H	0.8867330	3.3221300	-0.4607670

14  
C6H5CHO

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
C	-0.0064860	2.8750990	0.0000000
O	0.9884610	3.5737970	0.0000000
H	-1.0220320	3.3328560	0.0000000

4  
HCHO as in C6H5CHO

H	0.0375800	1.7673310	0.0000000
C	-0.0064860	2.8750990	0.0000000
O	0.9884610	3.5737970	0.0000000
H	-1.0220320	3.3328560	0.0000000

13  
C6H5CN

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
C	0.0000000	2.8298550	0.0000000
N	0.0000000	3.9930500	0.0000000

3  
HCN as in C6H5CN

H	0.0000000	1.7591240	0.0000000
C	0.0000000	2.8298550	0.0000000
N	0.0000000	3.9930500	0.0000000

17  
C6H5COCH3

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
C	0.0602610	2.8952860	0.0000000
O	1.1353560	3.4752140	-0.0000230
C	-1.2391440	3.6864090	-0.0000250
H	-1.8456580	3.4528640	-0.8834060
H	-1.8456710	3.4528970	0.8833560
H	-0.9974190	4.7505440	-0.0000420

7  
HCOCH3 as in C6H5COCH3

H	-0.0076280	1.7874280	0.0000440
C	0.0602610	2.8952860	0.0000000

O	1.1353560	3.4752140	-0.0000230
C	-1.2391440	3.6864090	-0.0000250
H	-1.8456580	3.4528640	-0.8834060
H	-1.8456710	3.4528970	0.8833560
H	-0.9974190	4.7505440	-0.0000420

18  
C6H5COOCH3

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
C	0.0608800	2.8843640	-0.0000070
O	1.0891290	3.5324730	0.0000200
O	-1.1679300	3.4531140	-0.0000180
C	-1.1770370	4.8882740	0.0001080
H	-0.6734640	5.2764120	-0.8893690
H	-2.2296180	5.1733740	0.0004750
H	-0.6728530	5.2762750	0.8892920

8  
HCOOCH3 as in C6H5COOCH3

H	-0.0265620	1.7900100	0.0000180
C	0.0608800	2.8843640	-0.0000070
O	1.0891290	3.5324730	0.0000200
O	-1.1679300	3.4531140	-0.0000180
C	-1.1770370	4.8882740	0.0001080
H	-0.6734640	5.2764120	-0.8893690
H	-2.2296180	5.1733740	0.0004750
H	-0.6728530	5.2762750	0.8892920

15  
C6H5COOH

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000

H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
C	0.0561190	2.8802480	-0.0000240
O	1.0766480	3.5395660	0.0005630
O	-1.1727430	3.4605160	-0.0008360
H	-1.0073640	4.4213910	-0.0009240

5

HCOOH as in C6H5COOH

H	-0.0260310	1.7865490	0.0001220
C	0.0561190	2.8802480	-0.0000240
O	1.0766480	3.5395660	0.0005630
O	-1.1727430	3.4605160	-0.0008360
H	-1.0073640	4.4213910	-0.0009240

12

C6H5F

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
F	0.0000000	2.7401870	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000

2

HF as in C6H5F

F	0.0000000	2.7401870	0.0000000
H	0.0000000	1.8996520	0.0000000

20

C6H5NCH3\_2

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
N	-0.0000990	2.7966770	-0.0247350
C	-1.2417630	3.5106360	0.2150510
H	-1.0495560	4.5847550	0.1736570
H	-1.9857750	3.2834960	-0.5584130
H	-1.6920130	3.2800190	1.1951200
C	1.2418460	3.5109540	0.2125110
H	1.6932550	3.2821060	1.1924950
H	1.9848870	3.2823680	-0.5614010
H	1.0496580	4.5850100	0.1693120

10

HNCH3\_2 as in C6H5NCH3\_2

H	0.0004740	1.8787230	0.4019420
N	-0.0000990	2.7966770	-0.0247350
C	-1.2417630	3.5106360	0.2150510
H	-1.0495560	4.5847550	0.1736570
H	-1.9857750	3.2834960	-0.5584130
H	-1.6920130	3.2800190	1.1951200
C	1.2418460	3.5109540	0.2125110
H	1.6932550	3.2821060	1.1924950
H	1.9848870	3.2823680	-0.5614010
H	1.0496580	4.5850100	0.1693120

14

C6H5NH2

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
N	0.0000000	2.7976610	-0.0588810
H	0.8336820	3.2322300	0.3182530
H	-0.8336820	3.2322300	0.3182530

4

HNH2 as in C6H5NH2

H	-0.0002590	1.8367180	0.2770250
N	0.0000000	2.7976610	-0.0588810
H	0.8336820	3.2322300	0.3182530
H	-0.8336820	3.2322300	0.3182530

17

C6H5NHCH3

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
N	0.0339140	2.7922180	-0.0403440
C	-1.1311950	3.5896290	0.2919470
H	-0.8416910	4.6439050	0.2989390
H	-1.9115290	3.4695810	-0.4686980
H	-1.5721160	3.3414250	1.2720450
H	0.9054540	3.1811640	0.2936200

7

HNHCH3 as in C6H5NHCH3

H	-0.0389010	1.8449270	0.3164510
N	0.0339140	2.7922180	-0.0403440
C	-1.1311950	3.5896290	0.2919470
H	-0.8416910	4.6439050	0.2989390
H	-1.9115290	3.4695810	-0.4686980
H	-1.5721160	3.3414250	1.2720450
H	0.9054540	3.1811640	0.2936200

15

C6H5NHOH

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
N	0.0415130	2.8101550	-0.0956680
O	-1.1194670	3.4331810	0.4618720
H	-1.4859330	3.9134550	-0.2981910
H	0.8259380	3.1848810	0.4348330

5

HNHOH as in C6H5NHOH

H	-0.0432910	1.8361330	0.2018810
N	0.0415130	2.8101550	-0.0956680
O	-1.1194670	3.4331810	0.4618720
H	-1.4859330	3.9134550	-0.2981910
H	0.8259380	3.1848810	0.4348330

13  
C6H5NO

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
N	-0.1036370	2.8317190	0.0000000
O	0.9664440	3.4222230	0.0000000

3  
HNO as in C6H5NO

H	0.0998230	1.7842180	0.0000000
N	-0.1036370	2.8317190	0.0000000
O	0.9664440	3.4222230	0.0000000

14  
C6H5NO2

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
N	0.0000000	2.8605710	0.0000000
O	1.0905650	3.4308910	-0.0000340
O	-1.0905650	3.4308910	-0.0000340

4  
HNO2 as in C6H5NO2

H	0.0000000	1.8193500	0.0000250
N	0.0000000	2.8605710	0.0000000
O	1.0905650	3.4308910	-0.0000340
O	-1.0905650	3.4308910	-0.0000340

16  
C6H5OCF3

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
O	-0.1063000	2.7871980	-0.0489780
C	0.8125120	3.5691230	0.5669640
F	1.9975300	3.5892690	-0.0839780
F	0.3336560	4.8127590	0.5832710
F	1.0608170	3.1803640	1.8296660

6  
HO CF3 as in C6H5OCF3

H	0.2235870	1.8734660	-0.0675810
O	-0.1063000	2.7871980	-0.0489780
C	0.8125120	3.5691230	0.5669640
F	1.9975300	3.5892690	-0.0839780
F	0.3336560	4.8127590	0.5832710
F	1.0608170	3.1803640	1.8296660



13  
C6H5OH

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
O	-0.0622570	2.7623200	0.0000000
H	0.8405920	3.1165350	0.0000000

3  
HOH as in C6H5OH

H	0.0690340	1.8025590	0.0000000
O	-0.0622570	2.7623200	0.0000000
H	0.8405920	3.1165350	0.0000000

16  
C6H5OMe

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
O	-0.1061940	2.7585350	0.0000010
C	1.0846720	3.5268560	-0.0000020
H	1.6923950	3.3343950	-0.8945140
H	0.7670250	4.5713810	-0.0000150
H	1.6923850	3.3344150	0.8945220

6  
HOMe as in C6H5OMe

H	0.1452590	1.8234540	0.0000050
O	-0.1061940	2.7585350	0.0000010
C	1.0846720	3.5268560	-0.0000020
H	1.6923950	3.3343950	-0.8945140
H	0.7670250	4.5713810	-0.0000150
H	1.6923850	3.3344150	0.8945220

16  
C6H5SCH3

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
S	-0.1259000	3.1792430	0.0000130
C	1.6087750	3.7378810	-0.0001190
H	2.1410460	3.4069510	-0.8963770
H	1.5654100	4.8300000	-0.0001600
H	2.1411630	3.4070230	0.8960950

6  
HSCH3 as in C6H5SCH3

H	0.1216980	1.8513030	-0.0000520
S	-0.1259000	3.1792430	0.0000130
C	1.6087750	3.7378810	-0.0001190
H	2.1410460	3.4069510	-0.8963770
H	1.5654100	4.8300000	-0.0001600
H	2.1411630	3.4070230	0.8960950

13  
C6H5SH

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
S	-0.0800220	3.1837070	0.0000000
H	1.2502400	3.4061270	0.0000000

3  
HSH as in C6H5SH

H	0.0777910	1.8432860	0.0000000
S	-0.0800220	3.1837070	0.0000000
H	1.2502400	3.4061270	0.0000000

15  
C6H5SiF3

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
Si	-0.0000140	3.2319900	0.0276110
F	-1.2988550	3.8001710	-0.7058820
F	0.0003510	3.8578250	1.4975450
F	1.2984330	3.8002370	-0.7065240

5  
HSiF3 as in C6H5SiF3

H	0.0000250	1.7675610	0.0527750
Si	-0.0000140	3.2319900	0.0276110
F	-1.2988550	3.8001710	-0.7058820
F	0.0003510	3.8578250	1.4975450
F	1.2984330	3.8002370	-0.7065240

15  
C6H5SiH3

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	2.1451990	-1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1451990	-1.2385310	0.0000000
H	-2.1451990	1.2385310	0.0000000
Si	0.0001490	3.2772270	0.0358490
H	-1.2136080	3.8014840	-0.6485020
H	0.0001980	3.8116970	1.4274900
H	1.2140780	3.8011390	-0.6484680

5  
HSiH3 as in C6H5SiH3

H	-0.0000590	1.7926330	0.0394350
Si	0.0001490	3.2772270	0.0358490
H	-1.2136080	3.8014840	-0.6485020
H	0.0001980	3.8116970	1.4274900
H	1.2140780	3.8011390	-0.6484680

## Polysubstituted Benzenes

24

hexaaminobenzene

C	0.0000000	1.3937980	-0.0641980
C	-1.2070640	0.6968990	-0.0641980
C	1.2070640	0.6968990	-0.0641980
C	0.0000000	-1.3937980	-0.0641980
C	1.2070640	-0.6968990	-0.0641980
C	-1.2070640	-0.6968990	-0.0641980
N	0.0000000	2.8637980	-0.0641980
H	-0.8164970	3.1971310	0.4072070
H	0.8164970	3.1971310	0.4072070
N	-2.4801220	1.4318980	-0.0641980
H	-3.1770450	0.8914580	0.4072070
H	-2.4113350	2.3120300	0.4374470
N	-2.4801220	-1.4318980	-0.0641980
H	-2.4113350	-2.3120300	0.4374470
H	-3.1770450	-0.8914580	0.4072070
N	0.0000000	-2.8637980	-0.0641980
H	0.8164970	-3.1971310	0.4072070
H	-0.8164970	-3.1971310	0.4072070
N	2.4801220	-1.4318980	-0.0641980
H	3.1770450	-0.8914580	0.4072070
H	2.4113350	-2.3120300	0.4374470
N	2.4801220	1.4318980	-0.0641980
H	2.4113350	2.3120300	0.4374470
H	3.1770450	0.8914580	0.4072070

24

6 HNH2 as in hexaaminobenzene

H	0.0000000	1.8508490	0.0337050
N	0.0000000	2.8637980	-0.0641980
H	-0.8164970	3.1971310	0.4072070
H	0.8164970	3.1971310	0.4072070
H	-1.5952670	0.9508160	0.0890810
N	-2.4801220	1.4318980	-0.0641980
H	-3.1770450	0.8914580	0.4072070
H	-2.4113350	2.3120300	0.4374470
H	-1.5950280	-0.9511110	0.0887440
N	-2.4801220	-1.4318980	-0.0641980
H	-2.4113350	-2.3120300	0.4374470
H	-3.1770450	-0.8914580	0.4072070
H	0.0000000	-1.8508490	0.0337050
N	0.0000000	-2.8637980	-0.0641980
H	0.8164970	-3.1971310	0.4072070
H	-0.8164970	-3.1971310	0.4072070
H	1.5952670	-0.9508160	0.0890810
N	2.4801220	-1.4318980	-0.0641980
H	3.1770450	-0.8914580	0.4072070
H	2.4113350	-2.3120300	0.4374470
H	1.5950280	0.9511110	0.0887440

N	2.4801220	1.4318980	-0.0641980
H	2.4113350	2.3120300	0.4374470
H	3.1770450	0.8914580	0.4072070

15

tricyanobenzene

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
H	2.1451990	1.2385310	0.0000000
H	0.0000000	-2.4770620	0.0000000
H	-2.1462430	1.2391560	0.0000000
C	0.0000190	2.8293840	0.0000000
N	0.0000370	3.9915530	0.0000000
C	-2.4503500	-1.4146550	0.0000000
N	-3.4569280	-1.9955470	0.0000000
C	2.4503600	-1.4146380	0.0000000
N	3.4569470	-1.9955140	0.0000000

9

3 HCN as in tricyanobenzene

H	0.0000030	1.7586860	0.0000000
C	0.0000190	2.8293840	0.0000000
N	0.0000370	3.9915530	0.0000000
H	-1.5229970	-0.8794800	0.0000000
C	-2.4503500	-1.4146550	0.0000000
N	-3.4569280	-1.9955470	0.0000000
H	1.5229990	-0.8794770	0.0000000
C	2.4503600	-1.4146380	0.0000000
N	3.4569470	-1.9955140	0.0000000

12

hexafluorobenzene

C	0.0000000	1.3937980	0.0000000
C	1.2070640	0.6968990	0.0000000
C	-1.2070640	0.6968990	0.0000000
C	0.0000000	-1.3937980	0.0000000
C	-1.2070640	-0.6968990	0.0000000
C	1.2070640	-0.6968990	0.0000000
F	0.0000000	2.7294300	0.0000000
F	2.3637560	1.3647150	0.0000000
F	2.3637560	-1.3647150	0.0000000
F	0.0000000	-2.7294300	0.0000000
F	-2.3637560	-1.3647150	0.0000000
F	-2.3637560	1.3647150	0.0000000

12

6 HF as in hexafluorobenzene

H	0.0000000	1.7956700	0.0000000
F	0.0000000	2.7294300	0.0000000
H	1.5185600	0.9677960	0.0000000
F	2.3637560	1.3647150	0.0000000
H	1.5185600	-0.9677960	0.0000000
F	2.3637560	-1.3647150	0.0000000
H	0.0000000	-1.7956700	0.0000000
F	0.0000000	-2.7294300	0.0000000
H	-1.5185600	-0.9677960	0.0000000
F	-2.3637560	-1.3647150	0.0000000
H	-1.5185600	0.9677960	0.0000000
F	-2.3637560	1.3647150	0.0000000

## Cryptolepines

31			
Cryptolepine			
C	-4.0851940	1.2487790	-0.1301040
C	-2.7175120	1.4555950	-0.0971380
C	-1.8543350	0.3385730	0.0008640
C	-2.4314150	-0.9679670	0.0244100
C	-3.8119100	-1.1744780	-0.0061530
C	-4.6265910	-0.0530260	-0.0765670
C	-0.4322550	0.1279040	0.0388840
C	-0.2028990	-1.2897590	0.0517690
N	-1.4269230	-1.9151230	0.0619400
N	0.6239160	0.9771390	0.0790010
C	1.9308300	0.4985970	0.0094550
C	2.1610100	-0.9170230	0.0154660
C	1.0670690	-1.8105380	0.0595290
C	3.0366260	1.3749130	-0.0751600
C	4.3195320	0.8660990	-0.1244720
C	4.5591950	-0.5254180	-0.0894660
C	3.4979590	-1.3962420	-0.0250280
C	0.3784200	2.4221370	0.2426520
H	-4.7526310	2.1005230	-0.2070780
H	-2.3363630	2.4663150	-0.1716310
H	-4.2303890	-2.1756420	0.0180040
H	-5.7042680	-0.1813870	-0.1031630
H	-1.5686250	-2.9148030	0.0518010
H	1.2451770	-2.8817260	0.0843220
H	2.8973130	2.4463000	-0.1333130
H	5.1564190	1.5532890	-0.1992910
H	5.5765310	-0.9008160	-0.1239700
H	3.6602270	-2.4699370	-0.0113610
H	1.1719620	2.8577600	0.8464580
H	-0.5575910	2.5555230	0.7785000
H	0.3321070	2.9216120	-0.7295000

35			
7,9-dinitrocryptolepine			
C	-4.0851940	1.2487790	-0.1301040
C	-2.7175120	1.4555950	-0.0971380
C	-1.8543350	0.3385730	0.0008640
C	-2.4314150	-0.9679670	0.0244100
C	-3.8119100	-1.1744780	-0.0061530
C	-4.6265910	-0.0530260	-0.0765670
C	-0.4322550	0.1279040	0.0388840
C	-0.2028990	-1.2897590	0.0517690
N	-1.4269230	-1.9151230	0.0619400
N	0.6239160	0.9771390	0.0790010
C	1.9308300	0.4985970	0.0094550
C	2.1610100	-0.9170230	0.0154660
C	1.0670690	-1.8105380	0.0595290
C	3.0366260	1.3749130	-0.0751600
C	4.3195320	0.8660990	-0.1244720
C	4.5591950	-0.5254180	-0.0894660
C	3.4979590	-1.3962420	-0.0250280
C	0.3784200	2.4221370	0.2426520
H	-2.3363630	2.4663150	-0.1716310
H	-5.7042680	-0.1813870	-0.1031630
H	-1.5686250	-2.9148030	0.0518010
H	1.2451770	-2.8817260	0.0843220
H	2.8973130	2.4463000	-0.1333130
H	5.1564190	1.5532890	-0.1992910
H	5.5765310	-0.9008160	-0.1239700
H	0.3321070	2.9216120	-0.7295000
N	-4.4006470	-2.5125350	0.0223250
O	-3.6100730	-3.4640800	0.0538300
O	-5.6173340	-2.6014560	0.0127730
N	-4.9900390	2.4069760	-0.2327380
O	-4.4624490	3.5146470	-0.2899590
O	-6.1920440	2.1749510	-0.2520070

8			
2 HNO2 as in 7,9-dinitrocryptolepine			
H	-3.9859750	-1.5565220	0.0022130
N	-4.4006470	-2.5125350	0.0223250
O	-3.6100730	-3.4640800	0.0538300
O	-5.6173340	-2.6014560	0.0127730
H	-4.3512610	1.5859850	-0.1604170
N	-4.9900390	2.4069760	-0.2327380
O	-4.4624490	3.5146470	-0.2899590
O	-6.1920440	2.1749510	-0.2520070

## Klärner Guest Molecules

24			
AQ			
C	-3.6951200	-0.6999450	-0.0000010
C	-2.4906630	-1.3980760	-0.0000020
C	-1.2748940	-0.7043870	0.0000030
C	-1.2748940	0.7043870	0.0000060
C	-2.4906630	1.3980760	0.0000070
C	-3.6951200	0.6999450	0.0000050
C	0.0000000	-1.4785380	0.0000050
C	0.0000000	1.4785380	-0.0000030
C	1.2748940	0.7043870	0.0000000
C	1.2748940	-0.7043870	-0.0000030
C	2.4906630	-1.3980760	-0.0000030
H	2.4645020	-2.4827730	-0.0000070
C	3.6951200	-0.6999450	0.0000030
C	3.6951200	0.6999450	0.0000050
C	2.4906630	1.3980760	0.0000040
H	-4.6361860	-1.2430060	-0.0000020
H	-2.4645020	-2.4827730	-0.0000080
H	-2.4645020	2.4827730	0.0000090
H	-4.6361860	1.2430060	0.0000050
H	4.6361860	-1.2430060	0.0000090
H	4.6361860	1.2430060	0.0000050
H	2.4645020	2.4827730	0.0000040
O	0.0000000	2.7050370	-0.0000150
O	0.0000000	-2.7050370	-0.0000060

28

1,5-DNAQ			
C	-3.6951200	-0.6999450	-0.0000010
C	-2.4906630	-1.3980760	-0.0000020
C	-1.2748940	-0.7043870	0.0000030
C	-1.2748940	0.7043870	0.0000060
C	-2.4906630	1.3980760	0.0000070
C	-3.6951200	0.6999450	0.0000050
C	0.0000000	-1.4785380	0.0000050
C	0.0000000	1.4785380	-0.0000030
C	1.2748940	0.7043870	0.0000000
C	1.2748940	-0.7043870	-0.0000030
C	2.4906630	-1.3980760	-0.0000030
C	3.6951200	-0.6999450	0.0000030
C	3.6951200	0.6999450	0.0000050
C	2.4906630	1.3980760	0.0000040
H	-4.6361860	-1.2430060	-0.0000020
H	-2.4645020	-2.4827730	-0.0000080
H	-4.6361860	1.2430060	0.0000050
H	4.6361860	-1.2430060	0.0000090
H	4.6361860	1.2430060	0.0000050
H	2.4645020	2.4827730	0.0000040
O	0.0000000	2.7050370	-0.0000150
O	0.0000000	-2.7050370	-0.0000060
N	-2.5918730	2.8734850	-0.0004490
O	-2.6772980	3.4139190	-1.0953680
O	-2.6787400	3.4144920	1.0941290
N	2.5918770	-2.8734780	-0.0000660
O	2.6777980	-3.4141570	-1.0948430
O	2.6781970	-3.4142470	1.0946560

8

2 HNO2 as in 1,5-DNAQ			
H	-2.4288760	1.8426530	-0.0000620
N	-2.5918730	2.8734850	-0.0004490
O	-2.6772980	3.4139190	-1.0953680
O	-2.6787400	3.4144920	1.0941290
H	2.4289280	-1.8426390	0.0000100
N	2.5918770	-2.8734780	-0.0000660
O	2.6777980	-3.4141570	-1.0948430
O	2.6781970	-3.4142470	1.0946560

28

1,8-DNAQ

C	-3.6951200	-0.6999450	-0.0000010
C	-2.4906630	-1.3980760	-0.0000020
C	-1.2748940	-0.7043870	0.0000030
C	-1.2748940	0.7043870	0.0000060
C	-2.4906630	1.3980760	0.0000070
C	-3.6951200	0.6999450	0.0000050
C	0.0000000	-1.4785380	0.0000050
C	0.0000000	1.4785380	-0.0000030
C	1.2748940	0.7043870	0.0000000
C	1.2748940	-0.7043870	-0.0000030
C	2.4906630	-1.3980760	-0.0000030
C	3.6951200	-0.6999450	0.0000030
C	3.6951200	0.6999450	0.0000050
C	2.4906630	1.3980760	0.0000040
H	-4.6361860	-1.2430060	-0.0000020
H	-2.4645020	2.4827730	0.0000090
H	-4.6361860	1.2430060	0.0000050
H	4.6361860	-1.2430060	0.0000090
H	4.6361860	1.2430060	0.0000050
H	2.4645020	2.4827730	0.0000040
O	0.0000000	2.7050370	-0.0000150
O	0.0000000	-2.7050370	-0.0000060
N	-2.5947380	-2.8735390	-0.0000040
N	2.5947380	-2.8735390	-0.0000050
O	-2.6828410	-3.4127020	-1.0950640
O	2.6828110	-3.4127090	1.0950540
O	-2.6828860	-3.4127010	1.0950530
O	2.6828480	-3.4127020	-1.0950650

8

2 HNO2 as in 1,8-DNAQ

H	-2.4275040	-1.8432920	-0.0000010
N	-2.5947380	-2.8735390	-0.0000040
O	-2.6828410	-3.4127020	-1.0950640
O	-2.6828860	-3.4127010	1.0950530
H	4.587438	-3.483298	-0.000009
N	4.903344	-5.430202	-0.000009
O	5.069778	-6.449085	2.069352
O	5.069848	-6.449072	-2.069373

26

dicyanomethylene fluorene

C	-3.0084510	-2.2791450	0.0000010
C	-1.6371320	-2.5650480	0.0000000
C	-0.7347360	-1.5101490	-0.0000010
C	-1.1854220	-0.1662590	-0.0000020
C	-2.5546170	0.1100920	0.0000000
C	-3.4593580	-0.9579810	0.0000010
H	-3.7266330	-3.0943210	0.0000030
H	-2.9299840	1.1255280	-0.0000010
C	0.7347570	-1.5101390	-0.0000010
C	1.6371660	-2.5650270	0.0000000
C	1.1854250	-0.1662440	-0.0000020
C	3.0084800	-2.2791080	0.0000010
H	1.2912990	-3.5949720	0.0000010
C	2.5546170	0.1101240	0.0000000
C	3.4593710	-0.9579370	0.0000010
H	3.7266730	-3.0942740	0.0000030
H	2.9299720	1.1255650	-0.0000010
C	-0.0000040	0.7196190	-0.0000040
C	-0.0000140	2.0942990	-0.0000030
C	-1.1965140	2.8790730	-0.0000010
C	1.1964750	2.8790910	-0.0000010
N	-2.1521950	3.5440190	0.0000030
N	2.1521460	3.5440510	0.0000030
H	-4.5251380	-0.7503250	0.0000020
H	-1.2912520	-3.5949880	0.0000010
H	4.5251480	-0.7502680	0.0000020

32

TNF

C	-3.0084510	-2.2791450	0.0000010
C	-1.6371320	-2.5650480	0.0000000
C	-0.7347360	-1.5101490	-0.0000010
C	-1.1854220	-0.1662590	-0.0000020
C	-2.5546170	0.1100920	0.0000000
C	-3.4593580	-0.9579810	0.0000010
H	-3.7266330	-3.0943210	0.0000030
H	-2.9299840	1.1255280	-0.0000010
C	0.7347570	-1.5101390	-0.0000010
C	1.6371660	-2.5650270	0.0000000
C	1.1854250	-0.1662440	-0.0000020
C	3.0084800	-2.2791080	0.0000010
H	1.2912990	-3.5949720	0.0000010
C	2.5546170	0.1101240	0.0000000
C	3.4593710	-0.9579370	0.0000010
H	3.7266730	-3.0942740	0.0000030
H	2.9299720	1.1255650	-0.0000010
C	-0.0000040	0.7196190	-0.0000040
C	-0.0000140	2.0942990	-0.0000030
C	-1.1965140	2.8790730	-0.0000010
C	1.1964750	2.8790910	-0.0000010
N	-2.1521950	3.5440190	0.0000030
N	2.1521460	3.5440510	0.0000030
N	-4.9061000	-0.6903450	0.0086310
O	-5.2570680	0.4854540	-0.0133760
O	-5.6566790	-1.6623160	0.0370050
N	-1.2987370	-3.9955730	0.0635060
O	-0.4607670	-4.3479080	0.8916720
O	-1.9222990	-4.7405630	-0.6832700
N	4.9044340	-0.6797510	0.0014410
O	5.2522340	0.4980270	-0.0012060
O	5.6627760	-1.6469320	0.0037160

12

3 HNO2 as in TNF

H	-3.8814950	-0.8809970	0.0026250
N	-4.9061000	-0.6903450	0.0086310
O	-5.2570680	0.4854540	-0.0133760
O	-5.6566790	-1.6623160	0.0370050
H	-1.4952280	-2.9745670	-0.0071440
N	-1.2987370	-3.9955730	0.0635060
O	-0.4607670	-4.3479080	0.8916720
O	-1.9222990	-4.7405630	-0.6832700
H	3.8810200	-0.8759160	0.0010000
N	4.9044340	-0.6797510	0.0014410
O	5.2522340	0.4980270	-0.0012060
O	5.6627760	-1.6469320	0.0037160



## Supramolecular Synthons

48

1,3,5-trisphenethynylbenzene

C	1.2214360	0.7051960	0.0000000
C	0.0000000	1.4008080	0.0000000
C	-1.2214360	0.7051960	0.0000000
C	-1.2131350	-0.7004040	0.0000000
C	0.0000000	-1.4103920	0.0000000
C	1.2131350	-0.7004040	0.0000000
H	0.0000000	2.4851080	0.0000000
H	-2.1521670	-1.2425540	0.0000000
H	2.1521670	-1.2425540	0.0000000
C	-2.4556780	1.4177860	0.0000000
C	-3.5087850	2.0257980	0.0000000
C	2.4556780	1.4177860	0.0000000
C	3.5087850	2.0257980	0.0000000
C	0.0000000	-2.8355730	0.0000000
C	0.0000000	-4.0515960	0.0000000
C	0.0000000	-5.4768070	0.0000000
C	1.2135770	-6.1935190	0.0000000
C	-1.2135770	-6.1935190	0.0000000
H	-2.1509090	-5.6456910	0.0000000
C	-1.2087730	-7.5857460	0.0000000
C	1.2087730	-7.5857460	0.0000000
H	2.1510910	-8.1270370	0.0000000
C	0.0000000	-8.2866830	0.0000000
H	0.0000000	-9.3731680	0.0000000
H	2.1509090	-5.6456910	0.0000000
H	-2.1510910	-8.1270370	0.0000000
C	4.7430540	2.7384030	0.0000000
C	4.7569560	4.1477480	0.0000000
H	3.8138570	4.6855870	0.0000000
C	5.9650620	4.8397010	0.0000000
C	5.9705330	2.0457710	0.0000000
C	7.1738350	2.7460450	0.0000000
H	8.1137660	2.2006190	0.0000000
C	-4.7430540	2.7384030	0.0000000
C	-5.9705330	2.0457710	0.0000000
H	-5.9647660	0.9601030	0.0000000
C	-7.1738350	2.7460450	0.0000000
C	-7.1764780	4.1433410	0.0000000
H	-8.1174020	4.6865840	0.0000000
C	-5.9650620	4.8397010	0.0000000
H	-5.9626750	5.9264180	0.0000000
C	-4.7569560	4.1477480	0.0000000
C	7.1764780	4.1433410	0.0000000
H	8.1174020	4.6865840	0.0000000
H	5.9647660	0.9601030	0.0000000
H	5.9626750	5.9264180	0.0000000
H	-3.8138570	4.6855870	0.0000000
H	-8.1137660	2.2006190	0.0000000

48

1,3,5-tris(perfluorophenethynyl)benzene

C	1.2214360	0.7051960	0.0000000
C	0.0000000	1.4008080	0.0000000
C	-1.2214360	0.7051960	0.0000000
C	-1.2131350	-0.7004040	0.0000000
C	0.0000000	-1.4103920	0.0000000
C	1.2131350	-0.7004040	0.0000000
H	0.0000000	2.4851080	0.0000000
H	-2.1521670	-1.2425540	0.0000000
H	2.1521670	-1.2425540	0.0000000
C	-2.4556780	1.4177860	0.0000000
C	-3.5087850	2.0257980	0.0000000
C	2.4556780	1.4177860	0.0000000
C	3.5087850	2.0257980	0.0000000
C	0.0000000	-2.8355730	0.0000000
C	0.0000000	-4.0515960	0.0000000
C	0.0000000	-5.4768070	0.0000000
C	1.2135770	-6.1935190	0.0000000
C	-1.2135770	-6.1935190	0.0000000
C	-1.2087730	-7.5857460	0.0000000
C	1.2087730	-7.5857460	0.0000000
C	0.0000000	-8.2866830	0.0000000
C	4.7430540	2.7384030	0.0000000
C	4.7569560	4.1477480	0.0000000
C	5.9650620	4.8397010	0.0000000
C	5.9705330	2.0457710	0.0000000
C	7.1738350	2.7460450	0.0000000
C	-4.7430540	2.7384030	0.0000000
C	-5.9705330	2.0457710	0.0000000
C	-7.1738350	2.7460450	0.0000000
C	-7.1764780	4.1433410	0.0000000
C	-5.9650620	4.8397010	0.0000000
C	-4.7569560	4.1477480	0.0000000
C	7.1764780	4.1433410	0.0000000
F	-2.3774360	-5.5431240	0.0000000
F	2.3621150	-8.2634150	0.0000000
F	0.0000000	-9.6193530	0.0000000
F	2.3774360	-5.5431240	0.0000000
F	-2.3621150	-8.2634150	0.0000000
F	3.6114280	4.8299370	0.0000000
F	8.3380430	2.0872430	0.0000000
F	-5.9888690	0.7125960	0.0000000
F	-8.3308700	4.8090200	0.0000000
F	-5.9759560	6.1774380	0.0000000
F	8.3308700	4.8090200	0.0000000
F	5.9888690	0.7125960	0.0000000
F	5.9759560	6.1774380	0.0000000
F	-3.6114280	4.8299370	0.0000000
F	-8.3380430	2.0872430	0.0000000

30

15 HF as in 1,3,5-tris(perfluorophenethynyl)benzene

H	5.9791210	1.6462090	0.0000000
F	5.9888690	0.7125960	0.0000000
H	-5.9791210	1.6462090	0.0000000
F	-5.9888690	0.7125960	0.0000000
H	1.5536710	-7.7960850	0.0000000
F	2.3621150	-8.2634150	0.0000000
H	-7.5086320	4.3672340	0.0000000
F	-8.3308700	4.8090200	0.0000000
H	-5.9684500	5.2436670	0.0000000
F	-5.9759560	6.1774380	0.0000000
H	-4.4157330	4.3557860	0.0000000
F	-3.6114280	4.8299370	0.0000000
H	1.5586040	-5.9917360	0.0000000
F	2.3774360	-5.5431240	0.0000000
H	-7.5211460	2.5396380	0.0000000
F	-8.3380430	2.0872430	0.0000000
H	0.0000000	-8.6859510	0.0000000
F	0.0000000	-9.6193530	0.0000000
H	-1.5536710	-7.7960850	0.0000000
F	-2.3621150	-8.2634150	0.0000000
H	-1.5586040	-5.9917360	0.0000000
F	-2.3774360	-5.5431240	0.0000000
H	4.4157330	4.3557860	0.0000000
F	3.6114280	4.8299370	0.0000000
H	5.9684500	5.2436670	0.0000000
F	5.9759560	6.1774380	0.0000000
H	7.5086320	4.3672340	0.0000000
F	8.3308700	4.8090200	0.0000000
H	7.5211460	2.5396380	0.0000000
F	8.3380430	2.0872430	0.0000000