

SUPPLEMENTARY INFORMATION

for

Fluorine interaction controlled AIEE phenomenon in an expanded calixbenzophyrin and its vapoluminescent response: Turn on emission with volatile ketones and esters

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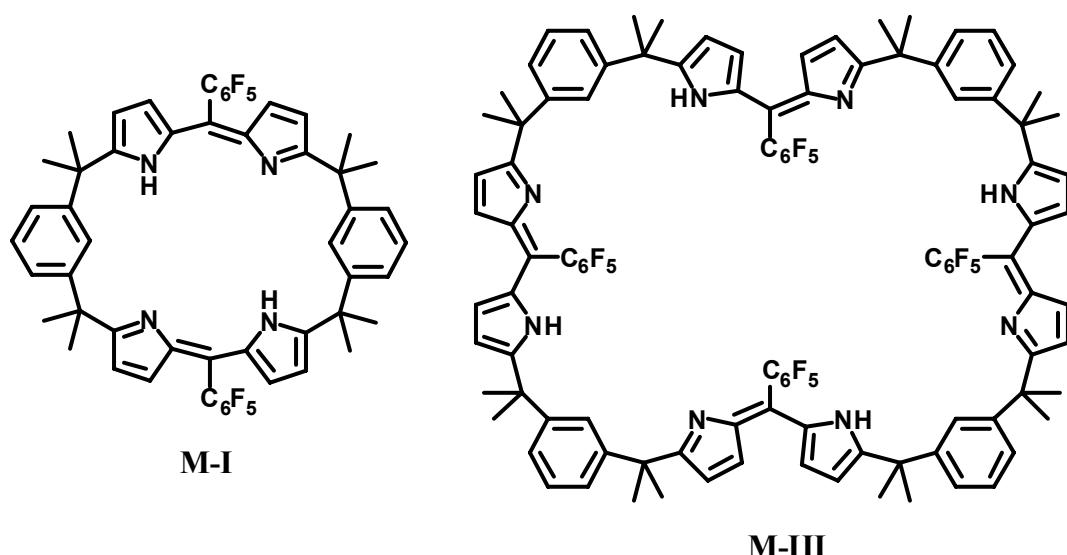
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1. General Information:

The fluorescence spectra were recorded on a SPEX-Fluorolog F112X spectrofluorimeter. Electronic absorption spectra were recorded with Shimadzu 3101PC UV-Vis-NIR Scanning spectrophotometer. The single crystal X-ray diffraction data of **M-II** was collected on a Bruker AXS Kappa Apex 2 CCD diffractometer at 273(2) K. Good quality single crystal was grown by slow evaporation of *n*-hexane into chloroform solutions of **M-II**. All the solvents used were purified and distilled before use and doubly distilled water was used for all the experiments. Fluorescence quantum yields in solution state were determined using fluorescein in 0.1M NaOH ($\Phi_f = 0.95$) as a reference. Fluorescence lifetimes were measured using IBH (FluoroCube) time-correlated picosecond single photon counting (TCSPC) system. Samples were excited with a pulsed diode laser (<100 ps pulse duration) at a wavelength of 440 nm (NanoLED-10) with a repetition rate of 1 MHz. The detection system consists of a microchannel plate photomultiplier (5000U-09B, Hamamatsu) with a 38.6 ps response time coupled to a monochromator (5000M) and TCSPC electronics (DataStation Hub including Hub-NL, NanoLED controller and preinstalled Fluorescence Measurement and Analysis Studio (FMAS) software). The fluorescence lifetime values were obtained using DAS6 decay analysis software. SEM analysis was carried out using scanning electron microscope JEOL JSM 5600LV. HR-TEM measurements were carried out using JEOL JEM1011 with an accelerating voltage of 100 kV. Samples were prepared by drop casting of 40:60 acetonitrile / water solutions of **M-II** on to carbon coated copper grids at the required concentrations at ambient conditions. The solvent was removed under vacuum. DLS analyses were carried out with a Zetasizer Nano S from Malvern Instruments at 25°C. The average hydrodynamic radii were calculated from Stork-Einstein equation ($R_h = kBT/(6\pi\eta D)$). The fluorescence measurement of **M-II** films with various VOCs was carried out by exposing organic vapors for 5 min in the closed environment and immediately measured the emission spectrum. All experiments were carried out at room temperature (25 ±1 °C), unless otherwise mentioned.

2. ChemDraw structure of M-I and M-III:



3. Aggregation Properties:

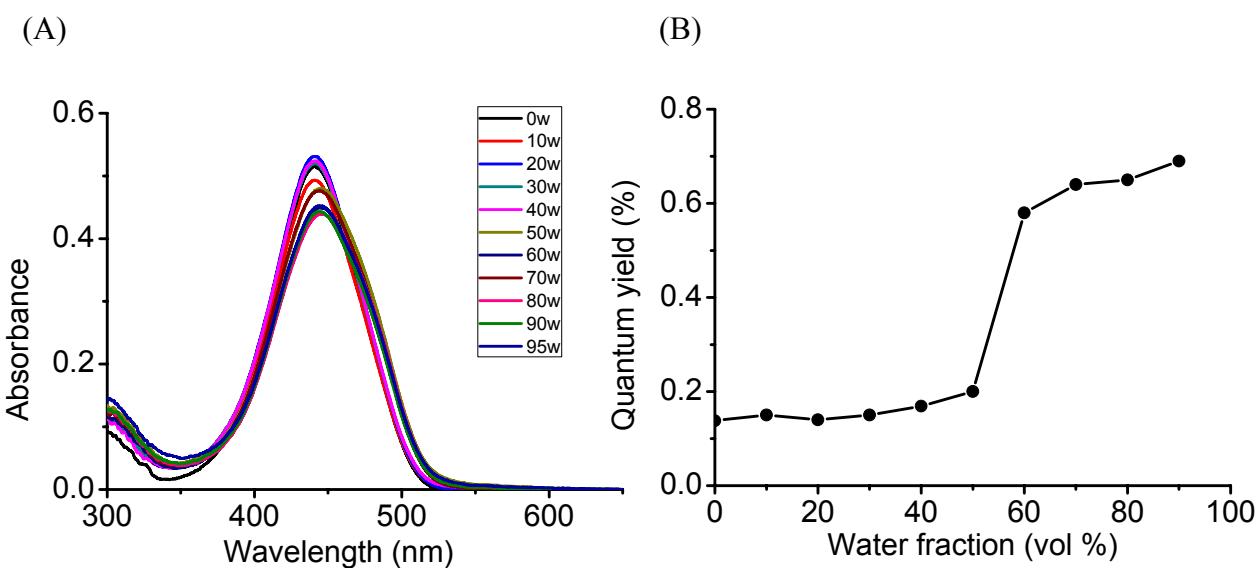


Figure S1. (A) Absorption spectra of **M-II** ($8.2 \mu\text{M}$) in acetonitrile and acetonitrile/water mixture. (B) Variation in quantum yield with increase in water contents in the acetonitrile/water mixtures ($f_w = 0\text{-}90 \text{ vol } \%$).

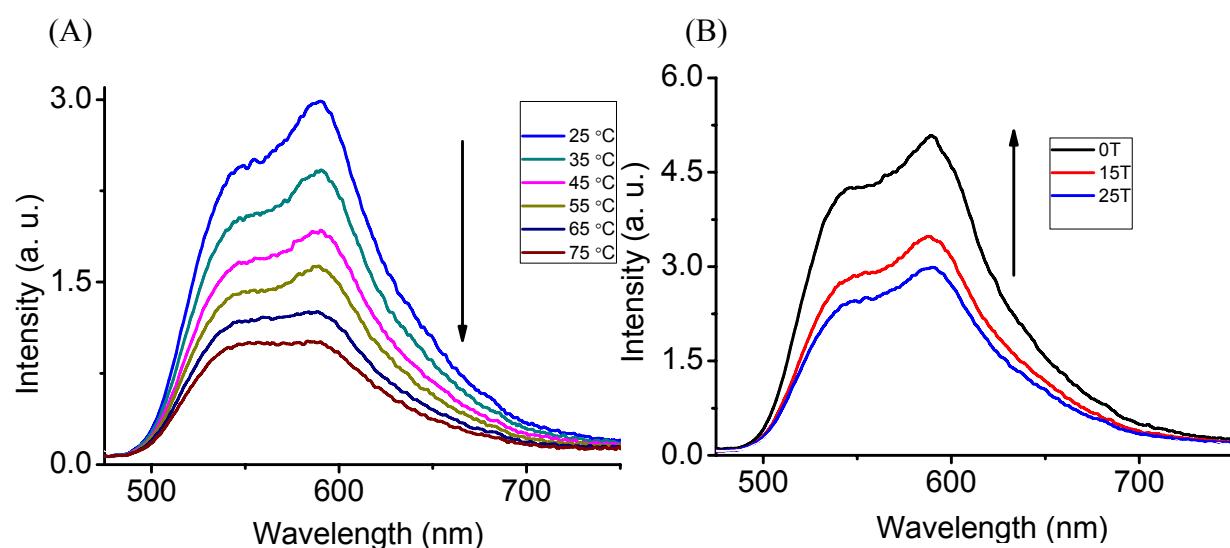


Figure S2. Temperature effect on the emission intensity of **M-II** in acetonitrile/water (1:9 v/v), ($\lambda_{\text{ex}} = 440$ nm). (A) Temperature increases from 25 °C-75 °C. (B) Temperature decreases from 25 °C-0 °C.

3.1. Single Crystal Analyses of M-II:

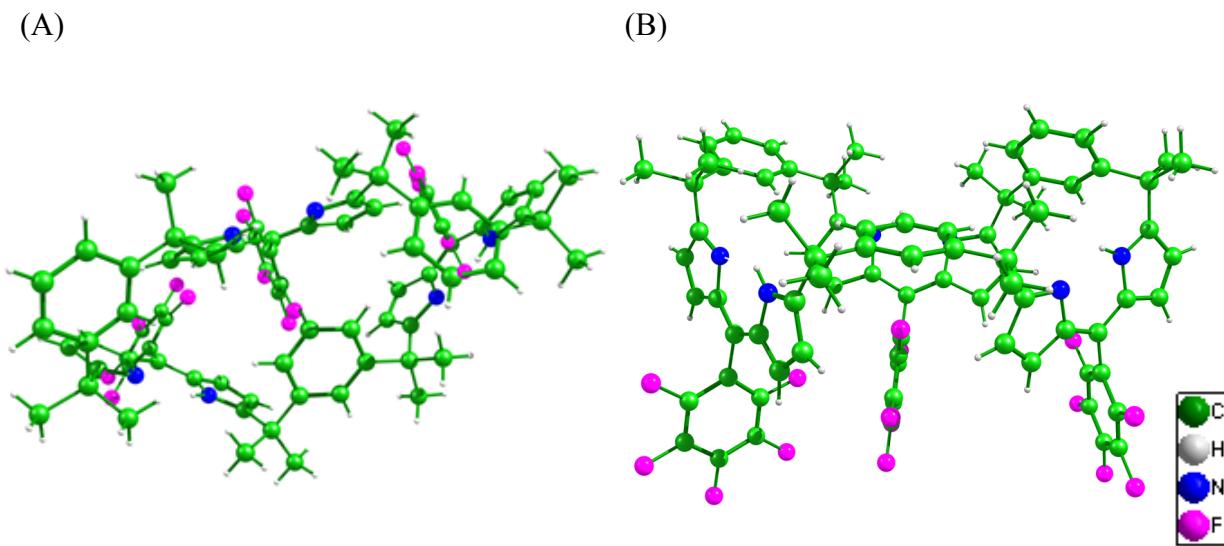


Figure S3. Single crystal X-ray structure of **M-II**: (A) Top view and (B) Side view

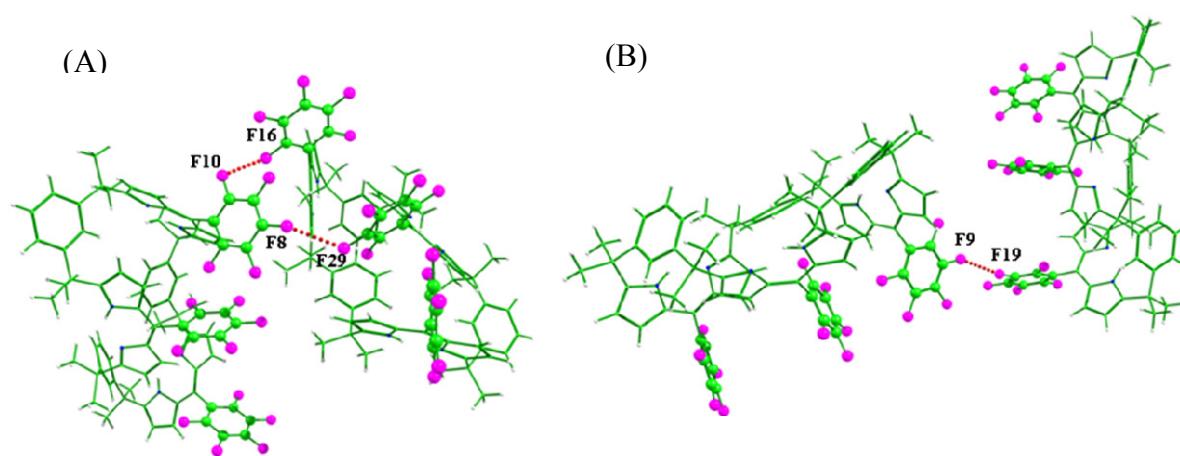


Figure S4. Single crystal X-ray analysis of **M-II**: Self-assembled dimer (A) and (B) formed by F...F interactions with the distances of F10...F16: 2.892 Å, F8...F29: 2.876 Å, and F9...F19: 2.785 Å, respectively.

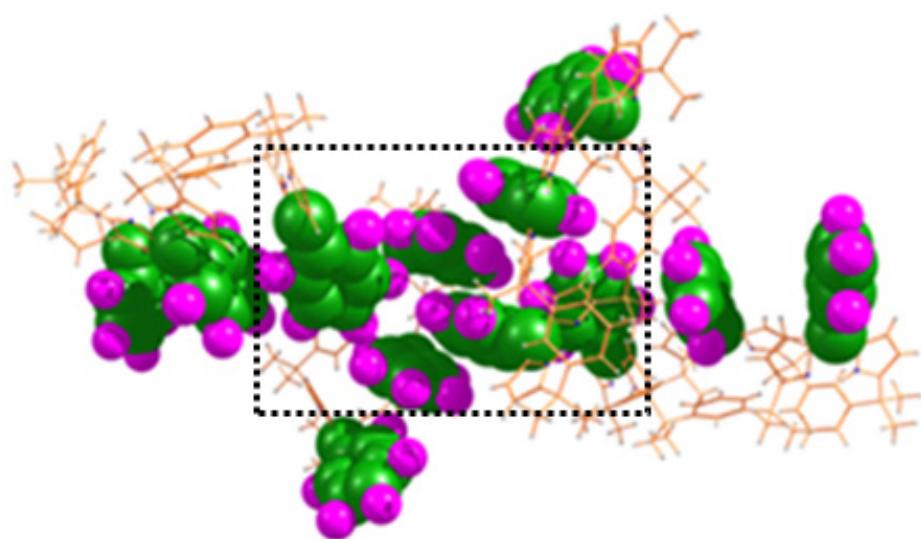


Figure S5. Single crystal X-ray analysis of tetramer cluster of **M-II** showing six-pack pattern.

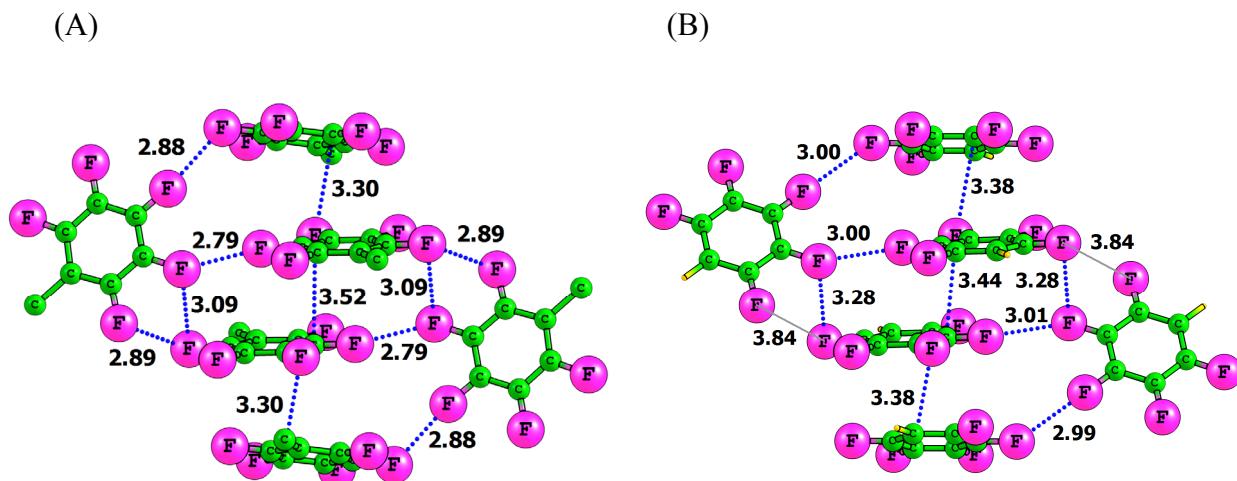


Figure S6. F...F, C-F... π_F and π_F ... π_F stacking interactions in the 'six-pack' fluorophore cluster. (A) X-ray structure **M-II** and (B) optimized geometry of $(C_6F_5H)_6$ cluster using DFT (Distances in Å).

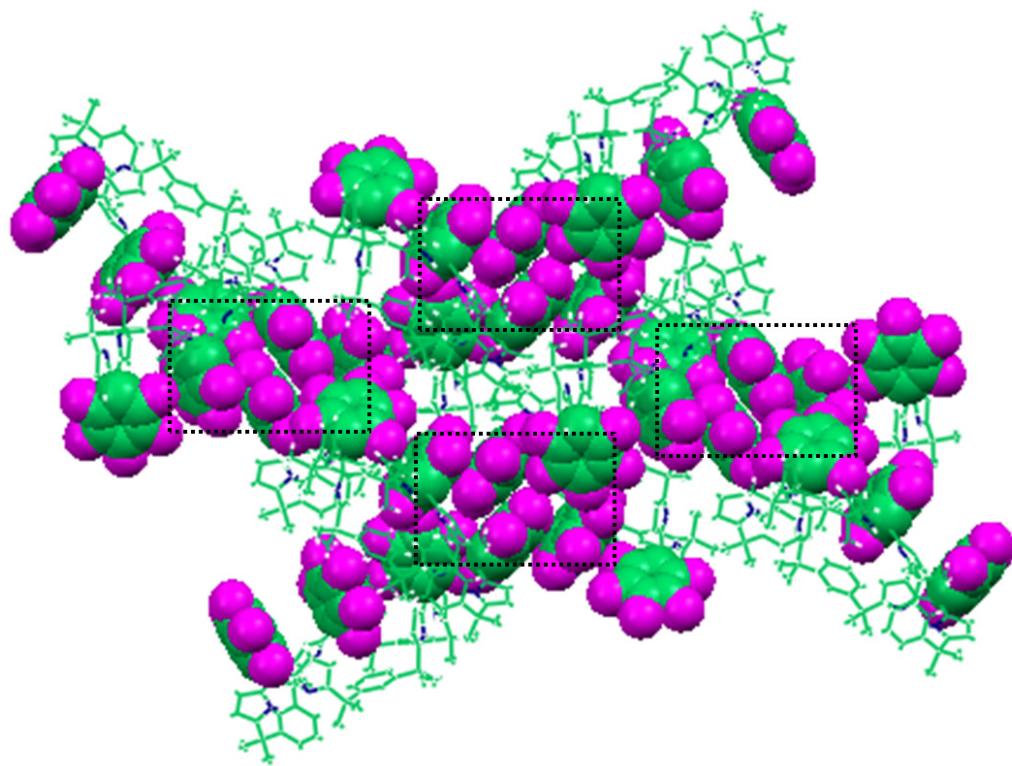


Figure S7. Single crystal X-ray analysis of dodecamer cluster of **M-II** showing repeated six-pack pattern.

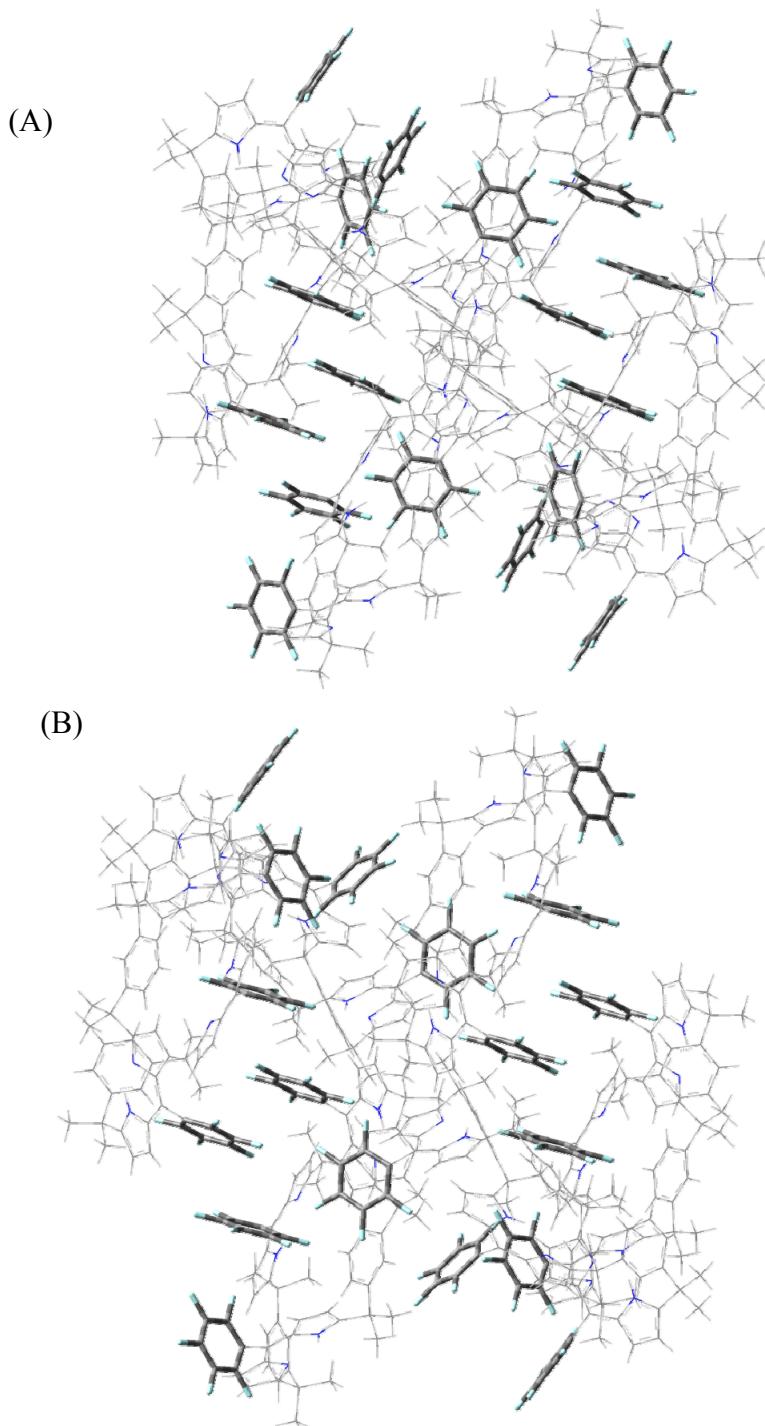


Figure S8. (A) X-ray geometry of a cluster composed of six molecules of M-II. (B) Optimized geometry of the same cluster using a two layer QM/MM ONIOM method. For the inner QM layer PM6 method (for all fluorinated aromatics) and outer MM layer universal force field (UFF) is used.

Crystallographic Data of M-II:

Crystallographic data of **M-II** in CHCl₃/n-hexane : C₈₁H₆₃F₁₅N₆, Mw = 1405.37, monoclinic, space group P21/n, a = 17.4183(12) Å, b = 14.7839(11) Å, c = 29.239(2) Å, α = 90.00°, β = 107.106(3)°, γ = 90.00°, V = 7196.2(9) Å³, Z = 4, Dcalc = 1.297 mg/m³, T = 273(2) K, R1 = 0.0432 {I > 2σ (I)}, R2w = 0.1240, GOF = 1.089.

CCDC- 882799 contains the supplementary crystallographic data for **M-II**. These data can be obtained free of charge from the Cambridge Crystallographic Data Centre via www.ccdc.cam.ac.uk/data_request/cif.

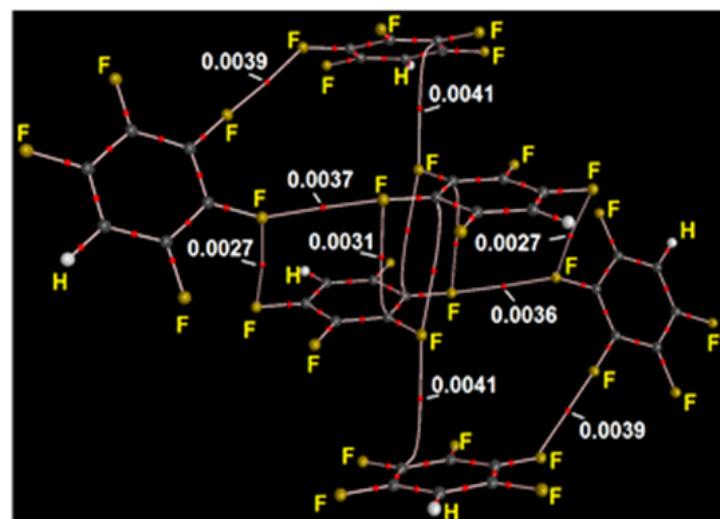


Figure S9. Electron density bond critical points for F...F, C-F... π_F and stacking $\pi_F...\pi_F$ interactions (distances in Å and density in a.u.).

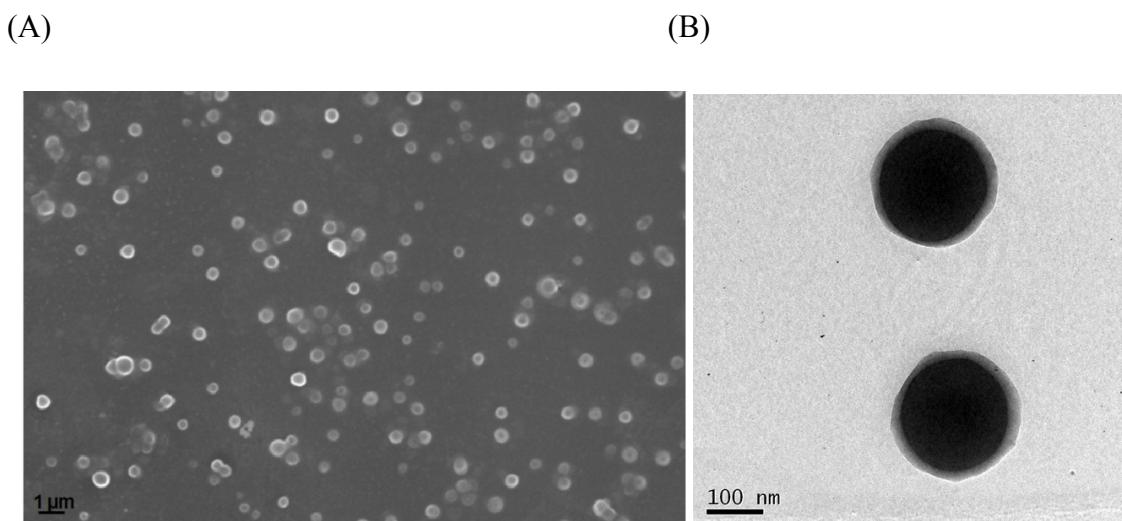


Figure S10. (A) SEM (scale bar=1 μ m) and (B) TEM (scale bar=100 nm) images of **M-II** aggregates

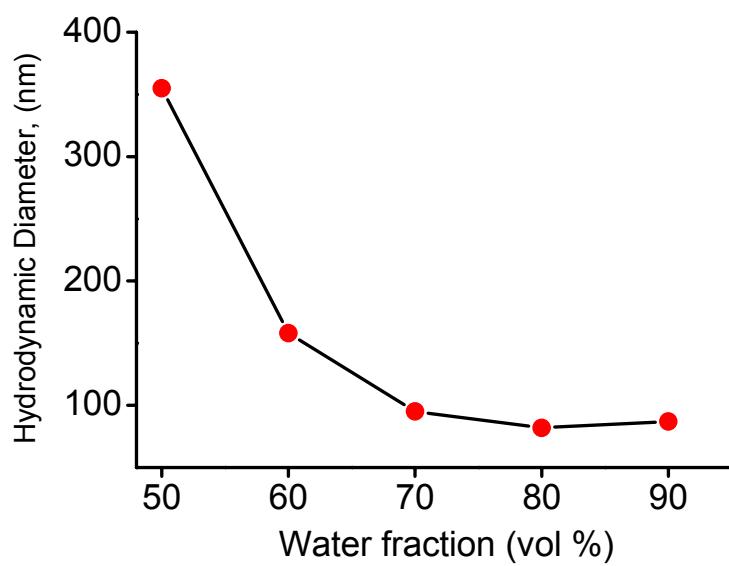


Figure S11. Hydrodynamic diameter of **M-II** (8.2 μ M) in different acetonitrile/water mixture.

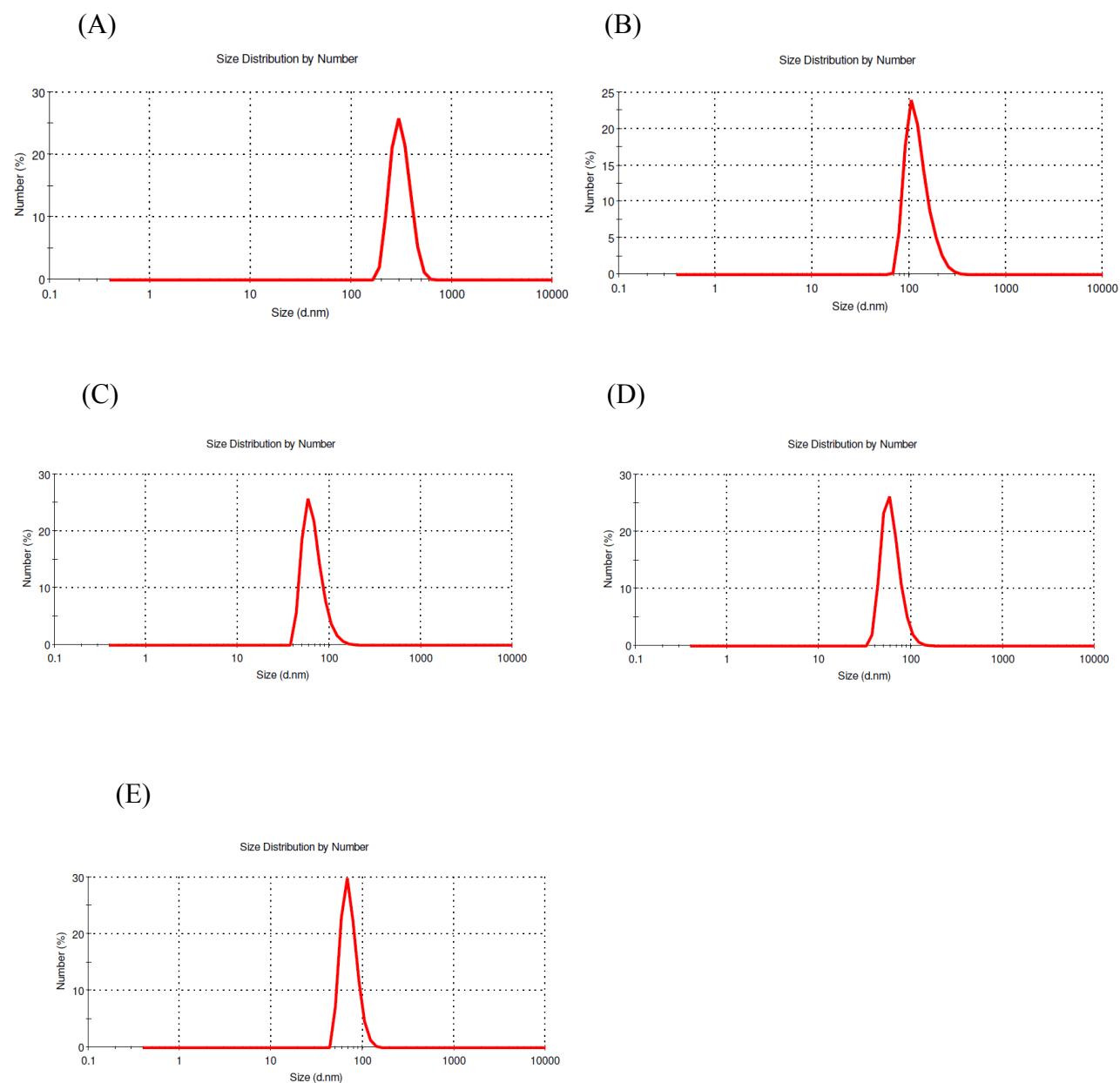


Figure S12. DLS measurements of M-II nanoparticle ($8.2 \mu\text{M}$) hydrodynamic size at room temperature in different acetonitrile/water mixture [(A) 50:50 (B) 40:60 (C) 30:70 (D) 20:80 (E) 10:90].

4. Disaggregation Studies:

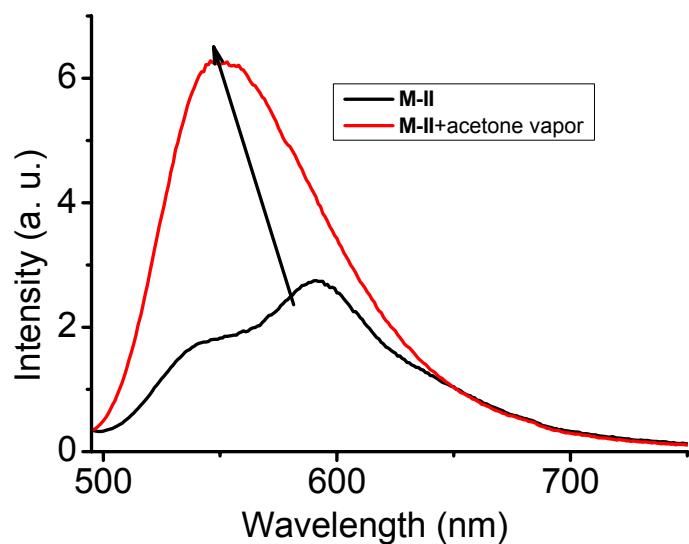


Figure S13. Changes in the emission spectrum of **M-II** film after exposure to acetone.

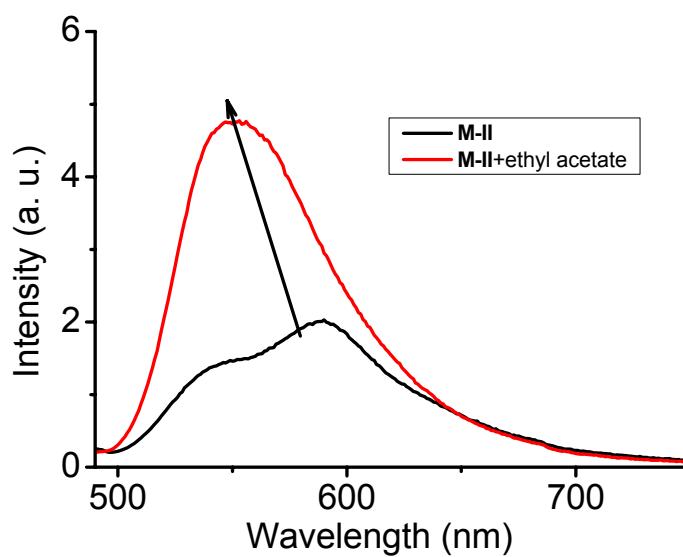


Figure S14. Emission Spectral changes of **M-II** film before and after exposure to ethyl acetate vapor.

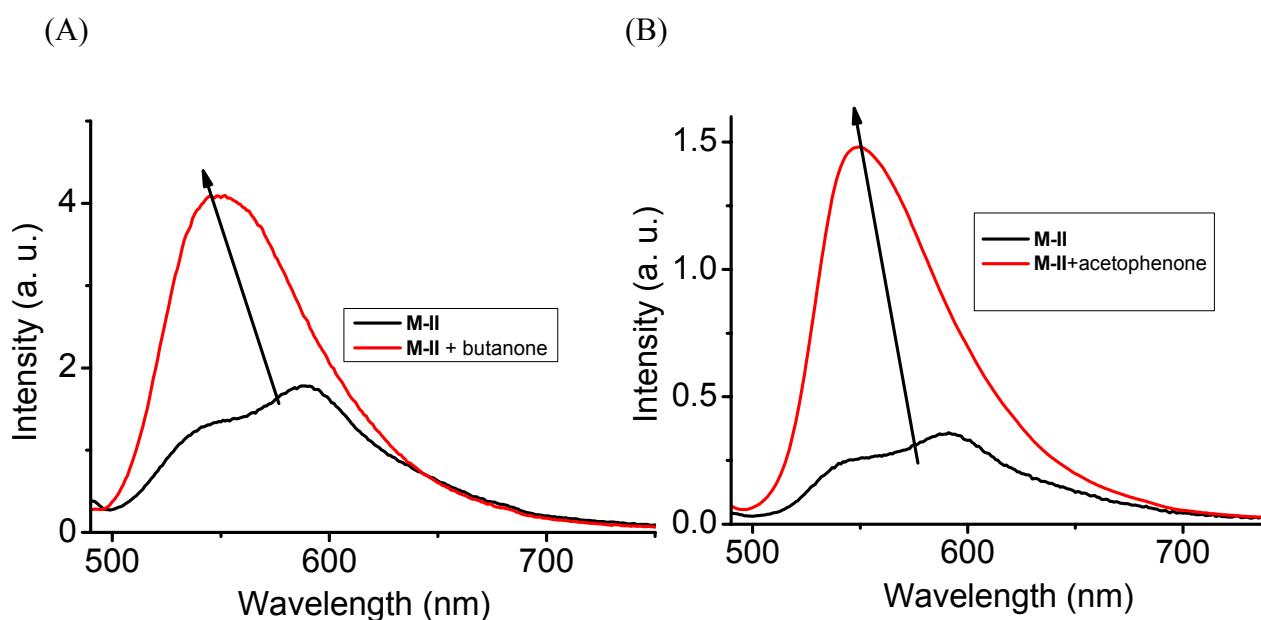


Figure S15. Emission Spectral changes of **M-II** film before and after exposure to (A) butanone and (B) acetophenone vapor

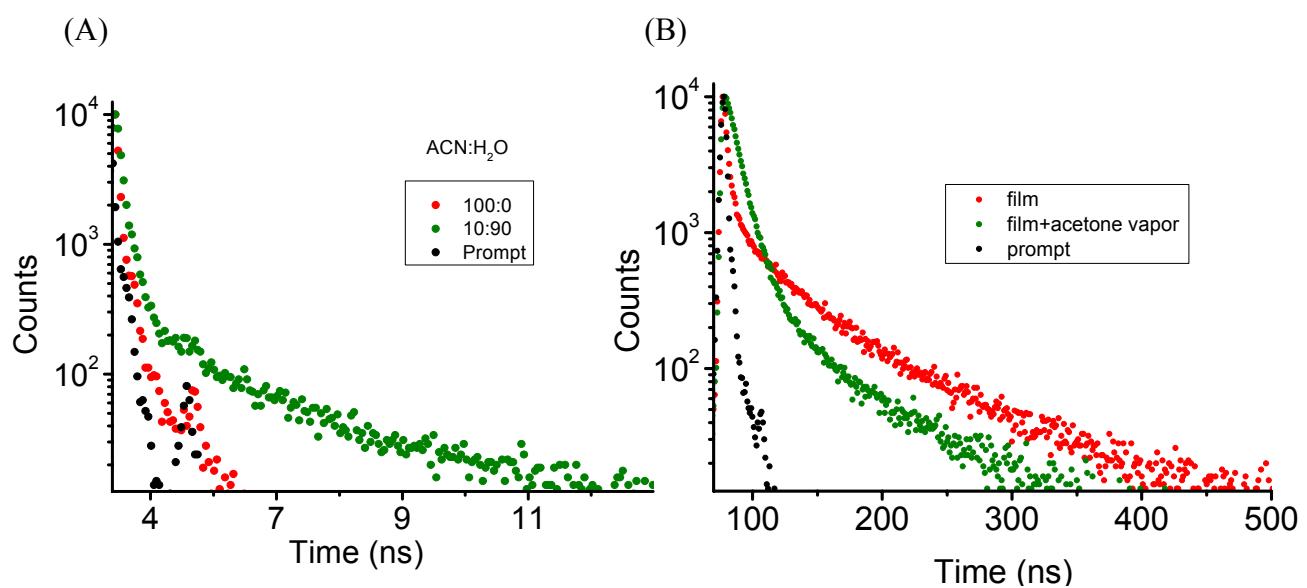


Figure S16. Lifetime decay profiles ($\lambda_{\text{ex}} = 440$ nm, monitored at 590 nm) of **M-II** in (A) solution and (B) film state.

Table S1. Fluorescence decay parameters of **M-II** in solution and film state.

M-II	τ_1 (ns)/A ₁ ^[a]	τ_2 (ns)/A ₂	τ_3 (ns)/A ₃
ACN: H ₂ O (100:0) ^[b]	0.011/100	-	-
ACN: H ₂ O (10:90)	0.06/66.78	1.28/10.32	5.34/22.9
Film	0.16/46.34	1.72/27.86	6.26/25.81
Film with vapor	0.55/85.67	-	4.25/14.33

[a] where A and τ represents the percentage fractional amount and fluorescence lifetime of the shorter (1)- and longer (2 and 3)- lived species, respectively. [b] Volume ratios given in parentheses for solvent mixtures.

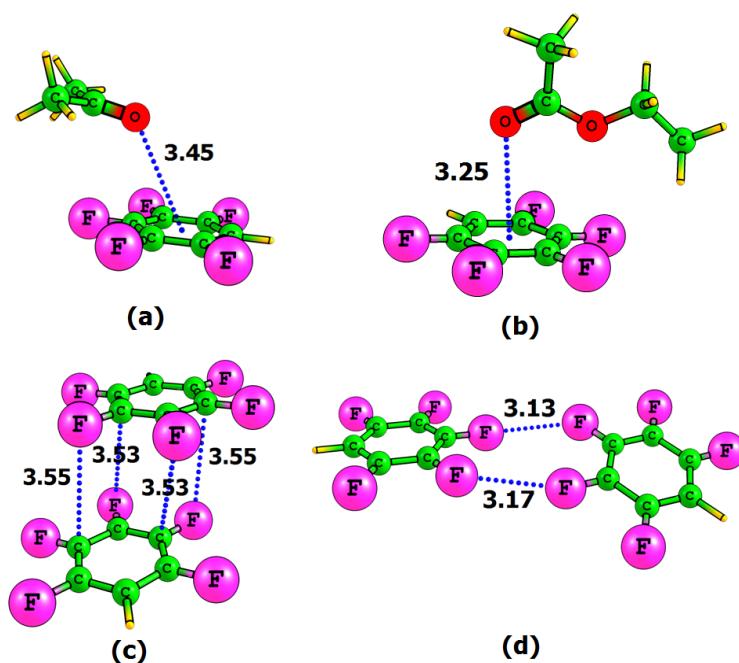


Figure S17. PW91PW91/6-311++G(d,p) optimized geometry of a) (CH₃)₂CO...C₆F₅H. b) CH₃CH₂COCH₃...C₆F₅H. (c) Stacked (C₆F₅H)₂. d) (C₆F₅H)₂ showing F...F interactions. All distances in Å. Interaction energy is computed using B97D/6-311++G(d,p) method.

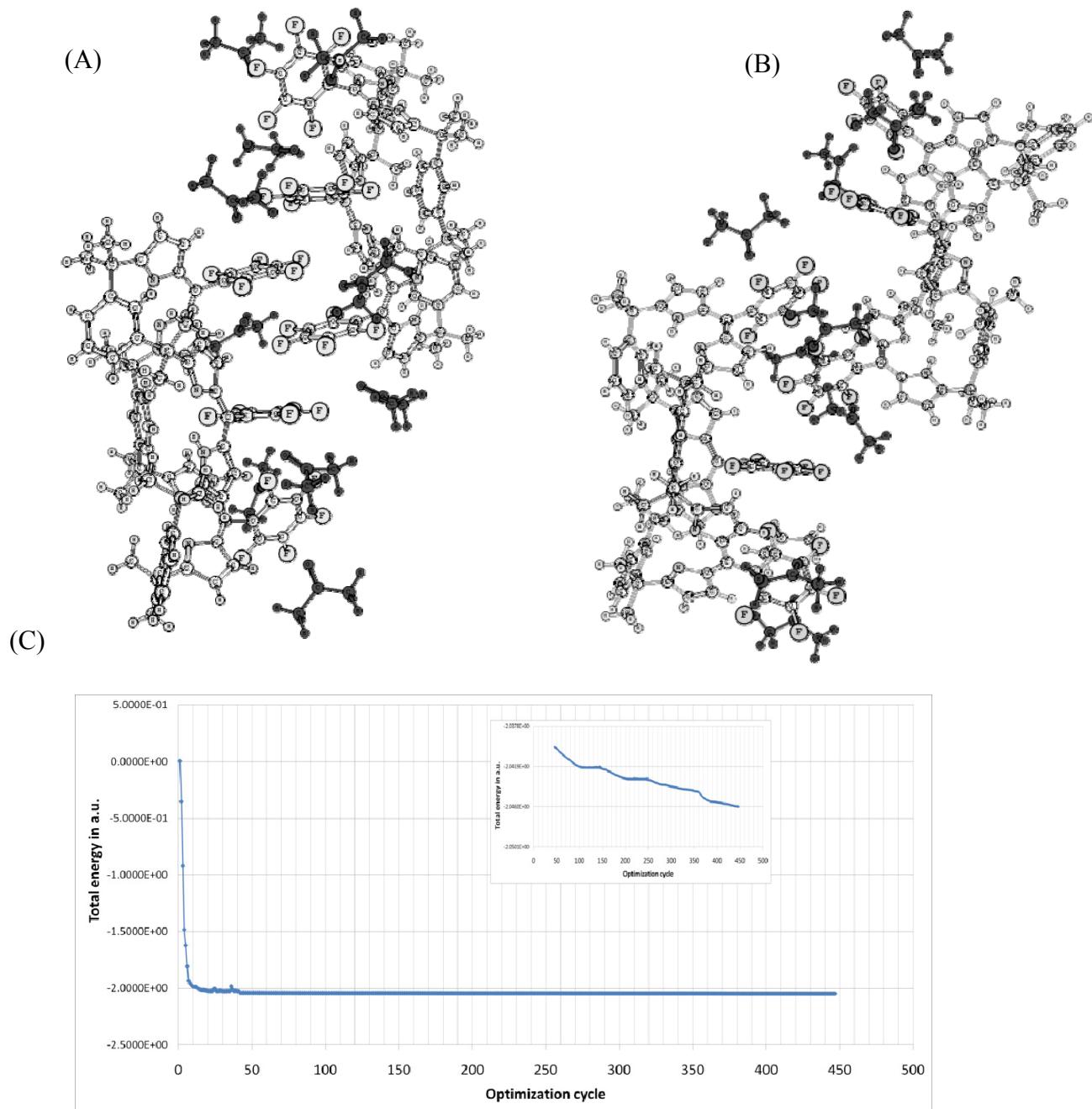


Figure S18. (A) X-ray geometry of a M-II dimer (grey shade) with ten acetone molecules (black shade) randomly oriented around pentafluorophenylmoieties. Initial distance of carbonyl oxygen to the centre of the phenyl ring is selected to be 3.00 Å. (B) PM6 level optimized geometry of the same dimer with acetone (no geometry constraints are applied). (C) Energy convergence plot for 447 optimization cycles. In the inset, the same plot is shown, but without first 50 optimization cycles to indicate the slow convergence of the system.

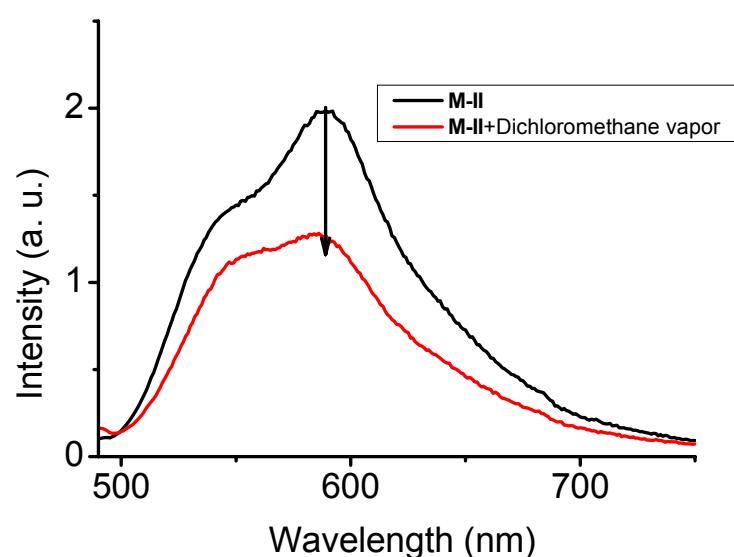


Figure S19. Changes in the emission spectrum of **M-II** film after exposure to dichloromethane vapor.

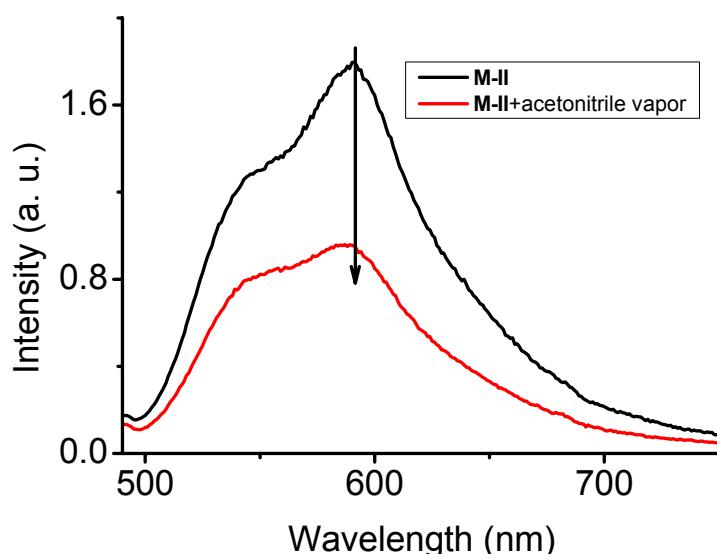


Figure S20. Changes in the emission spectrum of **M-II** film after exposure to acetonitrile vapor.

5. Spectral analyses of Calix[2]-*m*-benzo[4]phyrin containing C₆H₅ groups at *meso* position:

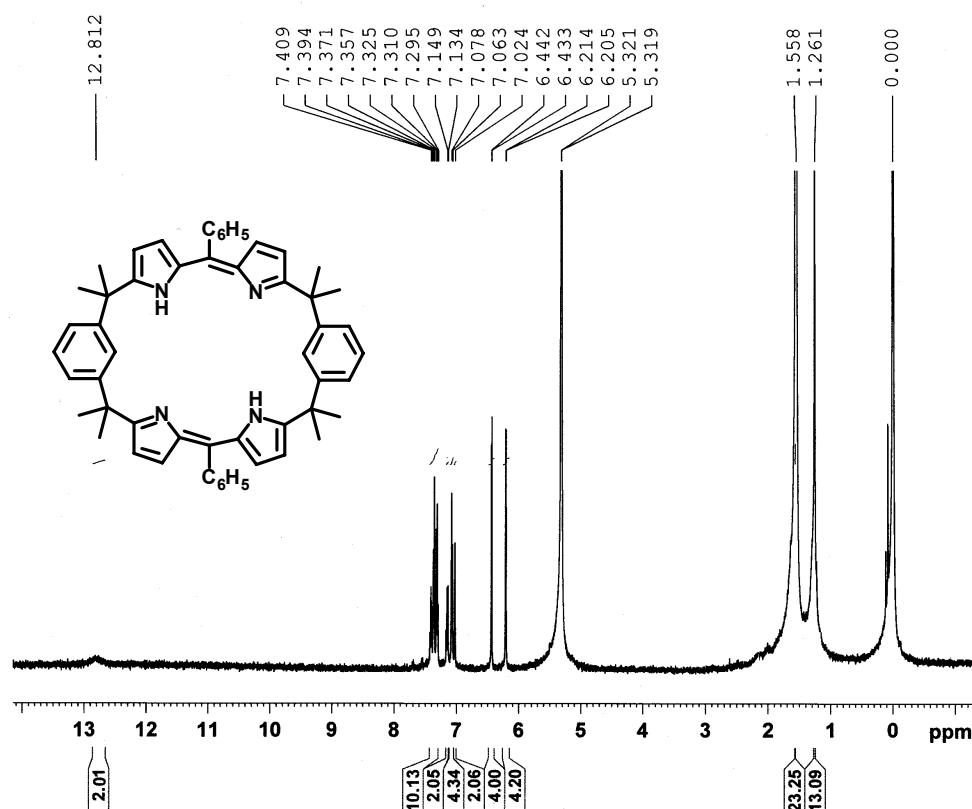


Figure S21. ¹H-NMR Spectrum in CDCl₃

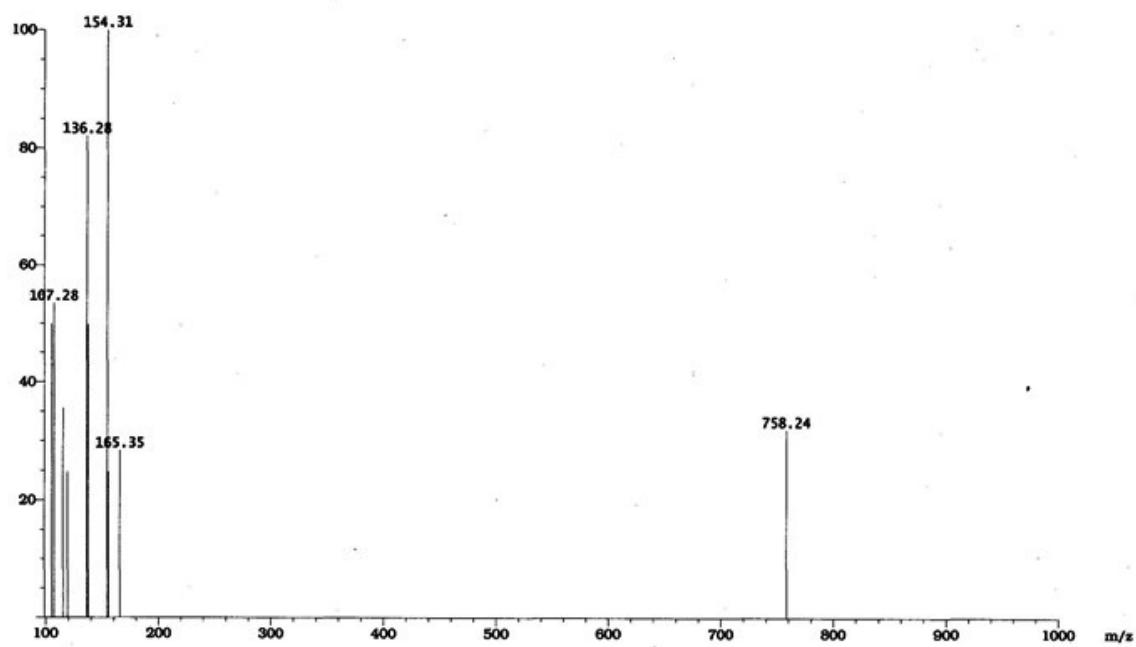


Figure S22. FAB MS Spectrum

6. Optimized geometries and energies:

Optimized Geometry of (C₆F₅H)₆ cluster at

PW91PW91/6-311++G(d,p). Coordinates in Angstrom unit

Atom	X	Y	Z
C	-7.263230	3.059728	0.538188
C	-8.161102	2.009878	0.373191
C	-7.720047	0.695076	0.202979
C	-6.346541	0.433723	0.196818
C	-5.428890	1.476179	0.360010
C	-5.899994	2.780662	0.529291
F	-9.487558	2.250035	0.376444
F	-8.594154	-0.311476	0.046359
F	-5.904670	-0.821380	0.038624
F	-4.112627	1.213362	0.352505
F	-5.007208	3.776454	0.689387
C	1.474767	-1.036896	3.089828
C	1.931698	-2.013781	2.211119
C	1.192613	-2.380597	1.084350
C	-0.029814	-1.747248	0.842079
C	-0.511248	-0.770544	1.717364
C	0.253399	-0.423094	2.833003
C	2.052061	5.553197	1.551862
C	1.317899	5.676109	0.376803
C	1.767702	5.115311	-0.820409
C	2.978768	4.417273	-0.836214
C	3.733091	4.286308	0.333059
C	3.255156	4.885855	1.516081
F	3.109492	-2.6274150	2.442051
F	1.633553	-3.3248030	0.240994
F	-0.749264	-2.078487	-0.244983
F	-1.689841	-0.175590	1.471888
F	-0.213828	0.527042	3.666374
F	0.146902	6.3413710	0.378029
F	1.043538	5.2244930	-1.947876
F	3.414326	3.8646910	-1.978137
F	4.898078	3.6220170	0.310643
F	3.988137	4.7189550	2.639307
C	-1.468348	1.034048	-3.080866
C	-1.927727	2.010763	-2.203273
C	-1.191033	2.378736	-1.075334
C	0.031520	1.746681	-0.830698
C	0.515480	0.770153	-1.704728
C	-0.246805	0.421576	-2.821689
C	-2.051880	-5.547651	-1.548573
C	-1.322041	-5.673924	-0.371152
C	-1.775660	-5.115576	0.825757
C	-2.986436	-4.416975	0.838977
C	-3.736716	-4.283180	-0.332634
C	-3.254798	-4.849893	-1.515385
F	-3.105847	2.622905	-2.436311
F	-1.634343	3.322868	-0.233215
F	0.748691	2.0789740	0.257530
F	1.694421	0.1767230	-1.456918
F	0.222911	-0.5283140	-3.653934
F	-0.151652	-6.340249	-0.369730
F	-1.055369	-5.227845	1.955379
F	-3.425962	-3.867061	1.980661
F	-4.901820	-3.619065	-0.312341
F	-3.983978	-4.710335	-2.640779
C	7.264667	-3.059749	-0.555388
C	8.162381	-2.008998	-0.395781
C	7.720940	-0.694754	-0.222582
C	6.347212	-0.434686	-0.207962
C	5.429656	-1.478117	-0.365468
C	5.901282	-2.782062	-0.537890
F	9.489035	-2.2477200	-0.407381
F	8.594935	0.3126790	-0.071219
F	5.905681	0.8202280	-0.046929
F	4.113068	-1.2171050	-0.349633
F	5.008587	-3.7787730	-0.692398
H	7.621240	-4.079352	-0.689571
H	1.689962	5.989708	2.480738
H	-2.053592	0.755047	-3.955012
H	-7.619638	4.079701	0.670018
H	-1.686706	-5.982171	-2.477176
H	2.061765	-0.758738	3.963070

Total Energy at PW91PW91/6-311++G(d,p) level = -4370.55499370 A.U.
Total Energy at B97D/6-311++G(d,p) level = -4369.25986210 A.U.
BSSE correction at B97D/6-311++G(d,p) level = 7.9 kcal/mol

**Optimized Geometry of C6F5H at
PW91PW91/6-311++G(d,p).** Coordinates in Angstrom unit

Atom	X	Y	Z
H	-0.000038	-2.768786	-0.000893
C	-0.000121	-1.680631	0.000203
C	-1.196499	-0.970765	0.000138
C	-1.212804	0.426159	0.000182
C	0.000016	1.121534	0.000023
C	1.212981	0.425983	0.000120
C	1.196399	-0.970726	0.000166
F	-2.371977	-1.629385	-0.000132
F	-2.371857	1.102223	-0.000054
F	0.000291	2.461486	-0.000095
F	2.371857	1.102179	-0.000059
F	2.371709	-1.629896	-0.000116

Total Energy = -728.422175365 A.U.

**Optimized Geometry of (CH₃)₂CO...C6F5H complex at
PW91PW91/6-311++G(d,p).** Coordinates in Angstrom unit

H	-3.299462	0.428786	1.466111
C	-2.468239	0.278340	0.780219
C	-1.756097	1.363205	0.279934
C	-0.685899	1.185282	-0.597870
C	-0.325996	-0.109339	-0.976170
C	-1.026011	-1.212343	-0.483979
C	-2.092455	-1.003250	0.391951
F	-2.093017	2.617373	0.643430
F	0.007558	2.2362620	-1.066413
F	0.713544	-0.296217	-1.807076
F	-0.658952	-2.453260	-0.844728
F	-2.761571	-2.074971	0.863994
C	2.856633	-0.102875	0.772309
O	1.757883	-0.018360	1.303214
C	3.489145	-1.445070	0.461810
H	4.547121	-1.468520	0.761740
H	2.934486	-2.249975	0.956046
H	3.463041	-1.609267	-0.627562
C	3.648574	1.128612	0.380143
H	4.016294	1.046517	-0.653507
H	3.032984	2.027646	0.491658
H	4.536486	1.213645	1.026860

Total Energy PW91PW91/6-311++G(d,p) level = -921.562195091 a.u.

Total Energy at B97D/6-311++G(d,p) level = -921.299052269 A.U.

BSSE correction at B97D/6-311++G(d,p) level = 0.9 kcal/mol

**Optimized Geometry of (CH₃)₂CO at
PW91PW91/6-311++G(d,p).** Coordinates in Angstrom unit

C	-0.000003	0.184125	0.000002
O	0.000003	1.404835	0.000000
C	-1.290374	-0.615442	-0.002853
H	-2.147198	0.051468	-0.145953
H	-1.274975	-1.386920	-0.787286
H	-1.398107	-1.143599	0.957898
C	1.290373	-0.615447	0.002854
H	1.274951	-1.386982	0.787228
H	1.398146	-1.143521	-0.957938
H	2.147183	0.051464	0.146034

Total Energy = -193.134721662 A.U.

Optimized Geometry of (C6F5H)₂ showing F...F interactions.

PW91PW91/6-311++G(d,p). Coordinates in Angstrom unit

H	6.216062000	1.040856000	0.158456000
C	5.212096000	0.625253000	0.099870000
C	5.017987000	-0.733055000	-0.129414000
C	3.735349000	-1.280525000	-0.207148000
C	2.625891000	-0.443742000	-0.050741000
C	2.800301000	0.924473000	0.179807000
C	4.096088000	1.441626000	0.252497000
F	6.079130000	-1.549993000	-0.281702000
F	3.557429000	-2.592076000	-0.428229000
F	1.390824000	-0.956578000	-0.120823000
F	1.731319000	1.720603000	0.328307000
F	4.252358000	2.761490000	0.475975000
H	-5.891507000	1.612395000	-0.387336000
C	-5.015083000	0.984766000	-0.238902000

C	-5.151194000	-0.376441000	0.013632000
C	-4.035578000	-1.194533000	0.205909000
C	-2.757487000	-0.630780000	0.142732000
C	-2.599699000	0.735678000	-0.109262000
C	-3.735405000	1.527313000	-0.297648000
F	-6.377704000	-0.931668000	0.076474000
F	-4.176130000	-2.506778000	0.449142000
F	-1.679668000	-1.404723000	0.324890000
F	-1.370548000	1.268659000	-0.166012000
F	-3.571916000	2.842905000	-0.540147000

Total Energy PW91PW91/6-311++G(d,p) level = -1456.84602589 a.u.

Total Energy at B97D/6-311++G(d,p) level = -1456.40901115 A.U.

BSSE correction at B97D/6-311++G(d,p) level = 0.5 kcal/mol

Optimized Geometry of (C₆F₅H)₂ showing stacking interactions.

PW91PW91/6-311++G(d,p). Coordinates in Angstrom unit

H	-3.767340000	1.824065000	-1.113419000
C	-3.129459000	1.215075000	-0.475825000
C	-3.360067000	-0.150078000	-0.338946000
C	-2.548451000	-0.947315000	0.471743000
C	-1.482786000	-0.355465000	1.155839000
C	-1.235506000	1.014848000	1.031843000
C	-2.064416000	1.785640000	0.213475000
F	-4.382158000	-0.730009000	-0.996863000
F	-2.774691000	-2.263194000	0.595580000
F	-0.686995000	-1.108027000	1.931308000
F	-0.203205000	1.569591000	1.689550000
F	-1.812894000	3.103443000	0.097971000
H	3.766518000	-1.823443000	1.114719000
C	3.128838000	-1.214670000	0.476717000
C	3.359513000	0.150428000	0.339556000
C	2.548352000	0.947428000	-0.471843000
C	1.483322000	0.355176000	-1.156522000
C	1.235866000	-1.015073000	-1.032113000
C	2.064420000	-1.785674000	-0.213230000
F	4.381061000	0.730590000	0.998115000
F	2.774459000	2.263313000	-0.595767000
F	0.687489000	1.107379000	-1.932318000
F	0.203736000	-1.569774000	-1.690161000
F	1.813539000	-3.103595000	-0.098023000

Total Energy PW91PW91/6-311++G(d,p) level = -1456.84866622 A.U.

Total Energy at B97D/6-311++G(d,p) level = -1456.41626243 A.U.

BSSE correction at B97D/6-311++G(d,p) level = 1.7 kcal/mol

Aniline

C	-0.221699000	-1.210826000	-0.003693000
C	1.173766000	-1.204998000	0.003014000
C	-0.941718000	-0.000034000	-0.005992000
H	1.709924000	-2.155499000	0.006695000
C	1.885417000	0.000039000	0.006560000
C	-0.221762000	1.210774000	-0.003628000
H	2.975279000	0.000013000	0.012846000
H	-0.764616000	2.158834000	-0.011520000
C	1.173743000	1.205022000	0.003008000
H	1.709766000	2.155597000	0.006894000
H	-0.764612000	-2.158851000	-0.011476000
N	-2.337599000	-0.000054000	-0.073966000
H	-2.794422000	0.843598000	0.258821000
H	-2.794610000	-0.843180000	0.259894000
Total energy = =	-287.567187604	A.U.	

CF₃COOH

H	-2.495215000	-0.915053000	0.000612000
O	-1.526856000	-1.054435000	-0.000189000
O	-1.509592000	1.226000000	-0.000003000
C	-0.948293000	0.160388000	-0.000230000
C	0.599827000	0.0000561000	-0.000014000
F	1.008024000	-0.681970000	1.097166000
F	1.008685000	-0.679924000	-1.098142000
F	1.191914000	1.203764000	0.001242000
E ==	-526.831487803	A.U.	

CH₃OH

C	0.668301000	-0.020194000	0.000012000
H	1.037835000	-0.540542000	0.900964000
H	1.084082000	0.994558000	-0.005913000
O	-0.753072000	0.122654000	0.000014000
H	-1.144420000	-0.763532000	-0.000001000
H	1.037275000	-0.550555000	-0.895237000
Total Energy =	-115.714808559	A.U.	

Propanal

O	1.826134000	-0.036660000	-0.292177000
C	0.781873000	-0.236016000	0.295093000
C	-0.473383000	0.589613000	0.151221000

H -0.635899000 1.090905000 1.122967000
H -0.301843000 1.368183000 -0.604623000
H 0.691296000 -1.097085000 1.011243000
C -1.696288000 -0.280555000 -0.179613000
H -2.612018000 0.324735000 -0.191030000
H -1.590371000 -0.752792000 -1.166084000
H -1.833445000 -1.078920000 0.564738000
Total energy = -193.122251124 A.U.

CH₃CN
C 0.276461000 0.000003000 -0.000051000
N 1.440140000 0.000001000 0.000024000
C -1.177296000 0.000000000 0.000007000
H -1.558649000 -0.768822000 -0.685274000
H -1.558626000 -0.209106000 1.008484000
H -1.558698000 0.977905000 -0.323113000

Total energy PW91PW91/6-311++G(d,p) level = -132.736765392 A.U.
Total Energy at B97D/6-311++G(d,p) level = -132.700060665 A.U.

Ethylacetate
C 1.112785000 -0.234830000 -0.000029000
O 1.918660000 -1.138884000 0.000097000
C 1.490452000 1.231686000 -0.000186000
H 1.092257000 1.747266000 0.885614000
H 2.581556000 1.305075000 -0.000357000
H 1.091944000 1.747230000 -0.885855000
O -0.220905000 -0.550013000 -0.000094000
C -1.237001000 0.483343000 0.000450000
H -1.122651000 1.116827000 0.894901000
H -1.122436000 1.118118000 -0.893054000
C -2.585511000 -0.209879000 -0.000239000
H -2.698313000 -0.842511000 0.889794000
H -2.698030000 -0.841250000 -0.891205000
H -3.390704000 0.538498000 0.000160000
Total energy PW91PW91/6-311++G(d,p) level = -307.672466041 A.U.
Total Energy at B97D/6-311++G(d,p) level = -307.591731035 A.U.

Methanol-C₆F₅H complex
H -2.696066000 1.055612000 -1.294598000
C -1.878061000 0.700341000 -0.671248000
C -0.905669000 1.579110000 -0.206069000
C 0.147117000 1.137293000 0.596489000
C 0.226521000 -0.215076000 0.934319000
C -0.739804000 -1.113368000 0.477417000
C -1.780905000 -0.643131000 -0.324119000
F -0.967541000 2.887130000 -0.530085000
F 1.092357000 1.990575000 1.027734000
F 1.239971000 -0.653463000 1.693876000
F -0.646572000 -2.415576000 0.795014000
F -2.704878000 -1.522368000 -0.765405000
C 3.394721000 -0.476719000 -1.114172000
H 3.847417000 -1.210450000 -0.426042000
H 3.328284000 0.486663000 -0.594239000
O 2.058954000 -0.835628000 -1.485379000
H 2.094831000 -1.682405000 -1.955485000
H 4.050343000 -0.351780000 -1.992510000

Total energy = -844.141673957 A.U.

CF₃COOH...C₆F₅H complex
H -3.197665000 0.341587000 -2.162806000
C -2.667044000 0.173755000 -1.227743000
C -2.367053000 1.235358000 -0.381446000
C -1.683681000 1.035778000 0.818803000
C -1.291604000 -0.257376000 1.172821000
C -1.581890000 -1.337767000 0.335788000
C -2.267064000 -1.106240000 -0.858588000
F -2.730887000 2.490205000 -0.717305000
F -1.383891000 2.069726000 1.622976000
F -0.619989000 -0.459763000 2.316051000
F -1.194105000 -2.575507000 0.680702000
F -2.538947000 -2.155286000 -1.661212000
H 2.784004000 2.602281000 -1.261069000
O 3.210944000 1.809623000 -0.877623000
O 1.079090000 1.006015000 -0.944259000
C 2.251760000 0.888656000 -0.687789000
C 2.872576000 -0.397163000 -0.068347000
F 3.814574000 -0.914502000 -0.892283000
F 3.454216000 -0.117972000 1.121444000
F 1.920961000 -1.323455000 0.127176000
Total energy PW91PW91/6-311++G(d,p) level = -1255.25787912 A.U.
Total Energy at B97D/6-311++G(d,p) level = -1254.89039815 A.U.

BSSE correction at B97D/6-311++G(d,p) level = 1.1 kcal/mol

CH₃CN...C₆F₅H complex

H	2.322540000	0.350265000	-2.130212000
C	1.774427000	0.238271000	-1.197005000
C	1.250113000	1.348168000	-0.544391000
C	0.535862000	1.218830000	0.647213000
C	0.342441000	-0.053051000	1.189659000
C	0.859930000	-1.180573000	0.549184000
C	1.570210000	-1.019497000	-0.641030000
F	1.423784000	2.581467000	-1.063626000
F	0.019663000	2.295436000	1.264930000
F	-0.361619000	-0.194294000	2.324426000
F	0.654931000	-2.400968000	1.072818000
F	2.059494000	-2.116467000	-1.255383000
C	-3.115937000	-0.231410000	-0.920816000
N	-1.977503000	-0.221329000	-1.161831000
C	-4.536958000	-0.244599000	-0.617914000
H	-5.074756000	0.443779000	-1.283438000
H	-4.945372000	-1.255055000	-0.752877000
H	-4.706696000	0.066903000	0.421459000

Total energy PW91PW91/6-311++G(d,p) level = -132.736765392 a.u.
Total Energy at B97D/6-311++G(d,p) level = -860.909440011 A.U.

Propanal...C₂F₄H complex

H	-3.271854000	1.193251000	-1.194379000
C	-2.465191000	0.764896000	-0.602922000
C	-1.467739000	1.575050000	-0.070645000
C	-0.427133000	1.038749000	0.687950000
C	-0.386994000	-0.338627000	0.911274000
C	-1.377347000	-1.170330000	0.384962000
C	-2.407385000	-0.604887000	-0.369204000
F	-1.491332000	2.906137000	-0.287625000
F	0.543883000	1.824889000	1.184803000
F	0.620604000	-0.868702000	1.623791000
F	-1.323537000	-2.494909000	0.599216000
F	-3.359124000	-1.416021000	-0.874128000
O	1.483931000	-0.326157000	-1.632704000
C	2.676927000	-0.512064000	-1.481772000
C	3.590985000	0.334428000	-0.633874000
H	4.328893000	0.790536000	-1.318876000
H	3.0074786000	1.143668000	-0.174156000
H	3.178301000	-1.378893000	-1.988921000
C	4.331293000	-0.509646000	0.417620000
H	5.057592000	0.106381000	0.963439000
H	3.628033000	-0.932844000	1.147859000
H	4.881168000	-1.340816000	-0.048183000

Total energy PW91PW91/6-311++G(d,p) level = -921.549600924 A.U.
Total Energy at B97D/6-311++G(d,p) level = -921.286751852 A.U.
BSSE correction at B97D/6-311++G(d,p) level = 0.7 kcal/mol

Initial structure used for PM6 level optimization dimer M-II with ten acetone molecule.

C	-1.669907000	-7.683617000	-0.551465000
C	-0.351661000	-7.436643000	-0.225429000
H	0.239920000	-8.053911000	0.143193000
C	-0.054714000	-6.125968000	-0.534767000
H	0.767762000	-5.709075000	-0.404587000
C	-1.187956000	-5.533908000	-1.075914000
C	-1.485607000	-4.204479000	-1.473141000
C	-0.460386000	-3.162188000	-1.166233000
C	0.266539000	-2.536336000	-2.141556000
C	1.156539000	-1.543033000	-1.896521000
C	1.369068000	-1.160732000	-0.591696000
C	0.676981000	-1.749150000	0.415392000
C	-0.204512000	-2.742534000	0.124985000
C	-2.652028000	-3.812997000	-2.076170000
C	-3.099258000	-2.497653000	-2.446318000
H	-2.642409000	-1.697335000	-2.312473000
C	-4.294010000	-2.646418000	-3.018860000
H	-4.834423000	-1.968744000	-3.359396000
C	-4.590156000	-4.056168000	-3.014160000
C	-5.801419000	-4.712514000	-3.625931000
C	-5.770309000	-4.411329000	-5.129499000
H	-6.550696000	-4.780482000	-5.548269000
H	-4.983913000	-4.799255000	-5.519043000
H	-5.756045000	-3.460374000	-5.265014000
C	-5.765897000	-6.230937000	-3.431039000
H	-5.770752000	-6.431988000	-2.491317000
H	-4.969514000	-6.586629000	-3.829921000
H	-6.535484000	-6.624676000	-3.846658000
C	-7.035809000	-4.134879000	-2.939610000
C	-8.015310000	-3.436419000	-3.620685000
H	-7.919851000	-3.321248000	-4.538481000
C	-9.131159000	-2.896655000	-3.001794000
C	-9.258814000	-3.097109000	-1.642952000
H	-9.997374000	-2.752334000	-1.194198000
C	-8.315900000	-3.796021000	-0.942818000
H	-8.427551000	-3.929733000	-0.027846000

C -7.200672000 -4.307515000 -1.577656000
H -6.557558000 -4.766689000 -1.085800000
C -10.156320000 -2.055927000 -3.775637000
C -9.914881000 -2.069135000 -5.278587000
H -10.599978000 -1.559039000 -5.716034000
H -9.935625000 -2.974350000 -5.596653000
H -9.058458000 -1.682187000 -5.468422000
C -11.591569000 -2.569540000 -3.507155000
H -11.766235000 -2.553398000 -2.562415000
H -11.676327000 -3.469441000 -3.831545000
H -12.223676000 -2.004880000 -3.960112000
C -10.013331000 -0.639470000 -3.265933000
C -9.132422000 0.362673000 -3.667510000
H -8.519542000 0.301559000 -4.363517000
C -9.327723000 1.451906000 -2.861566000
H -8.872246000 2.261327000 -2.916130000
C -10.328420000 1.133113000 -1.950052000
C -10.920758000 1.878849000 -0.915056000
C -10.404524000 3.260118000 -0.777938000
C -9.176815000 3.551612000 -0.248558000
C -8.627617000 4.796259000 -0.247941000
C -9.310201000 5.817643000 -0.796546000
C -10.530413000 5.595928000 -1.329872000
C -11.059449000 4.339606000 -1.298674000
C -11.942012000 1.432782000 -0.104518000
C -12.623268000 2.100255000 0.946765000
H -12.442840000 2.954926000 1.266629000
C -13.575031000 1.266898000 1.390844000
H -14.173139000 1.432412000 2.084055000
C -13.502631000 0.069625000 0.603091000
C -14.378563000 -1.154952000 0.726734000
C -14.141358000 -2.117760000 -0.440993000
H -14.308530000 -1.662504000 -1.269683000
H -14.734904000 -2.867960000 -0.360959000
H -13.231432000 -2.425923000 -0.421335000
C -15.857045000 -0.696427000 0.687880000
H -16.026446000 -0.097507000 1.418525000
H -16.431630000 -1.463453000 0.763300000
H -16.030789000 -0.245395000 -0.139831000
C -14.006911000 -1.845674000 2.036973000
C -14.911751000 -2.033489000 3.045875000
H -15.801309000 -1.778236000 2.933574000
C -14.494329000 -2.603277000 4.220136000
H -15.116769000 -2.758560000 4.892393000
C -13.172902000 -2.953940000 4.434320000
H -12.914545000 -3.310325000 5.252820000
C -12.225251000 -2.772320000 3.424552000
C -12.700956000 -2.242385000 2.240669000
H -12.102215000 -2.144521000 1.537404000
C -10.769244000 -3.175044000 3.578878000
C -10.329006000 -3.263232000 5.054374000
H -9.382652000 -3.416281000 5.095326000
H -10.790521000 -3.987867000 5.483190000
H -10.539446000 -2.441371000 5.500627000
C -10.597208000 -4.553784000 2.922714000
H -10.757465000 -4.480661000 1.978295000
H -11.223273000 -5.171566000 3.306844000
H -9.702170000 -4.869406000 3.072694000
C -9.860277000 -2.166363000 2.924132000
C -10.035636000 -0.822046000 2.581566000
H -10.809288000 -0.322604000 2.710758000
C -8.865129000 -0.365393000 2.020669000
H -8.710098000 0.492611000 1.698588000
C -7.955103000 -1.419337000 2.023135000
C -6.641001000 -1.502758000 1.519804000
C -6.111256000 -0.275212000 0.875132000
C -5.544052000 0.740256000 1.590217000
C -5.051574000 1.866857000 1.003251000
C -5.113397000 2.002668000 -0.354876000
C -5.669273000 1.023689000 -1.089745000
C -6.153772000 -0.076256000 -0.479226000
C -5.851859000 -2.628844000 1.549589000
C -4.557428000 -2.853194000 0.994402000
H -4.043509000 -2.239867000 0.520665000
C -4.222179000 -4.121962000 1.282816000
H -3.440075000 -4.559208000 1.038637000
C -5.304838000 -4.671971000 2.041542000
C -5.352352000 -6.062802000 2.659605000
C -6.640021000 -6.226565000 3.471390000
H -6.650888000 -5.583462000 4.185195000
H -6.675951000 -7.113334000 3.836461000
H -7.398471000 -6.082579000 2.900095000
C -4.145992000 -6.204868000 3.605078000
H -3.341044000 -5.969524000 3.137659000
H -4.083493000 -7.113389000 3.910818000
H -4.258789000 -5.621187000 4.360797000
C -5.269354000 -7.079129000 1.507671000

C -6.403817000 -7.455898000 0.784740000
H -7.238075000 -7.124595000 1.028500000
C -6.301462000 -8.298533000 -0.264897000
H -7.072615000 -8.558686000 -0.716029000
C -5.084687000 -8.786073000 -0.683790000
H -5.038848000 -9.350134000 -1.421244000
C -3.939954000 -8.437720000 -0.016582000
C -4.067231000 -7.591625000 1.078847000
H -3.298422000 -7.360363000 1.546827000
C -2.543127000 -8.891872000 -0.419873000
C -2.546297000 -9.648144000 -1.766075000
H -2.823810000 -9.052049000 -2.466079000
H -3.154295000 -10.388497000 -1.718060000
H -1.663240000 -9.972085000 -1.954921000
C -1.996274000 -9.833716000 0.674065000
H -1.140532000 -10.174401000 0.400232000
H -2.606038000 -10.564201000 0.799774000
H -1.898622000 -9.349327000 1.495496000
N -2.133096000 -6.530483000 -1.090405000
N -3.636228000 -4.742987000 -2.447265000
N -10.720152000 -0.163839000 -2.239836000
N -12.513968000 0.164874000 -0.278537000
N -8.602680000 -2.499179000 2.594139000
N -6.268893000 -3.802009000 2.185564000
F 0.080793000 -2.905723000 -3.420269000
F 1.831342000 -0.956876000 -2.896598000
F 2.231444000 -0.167331000 -0.336567000
F 0.884045000 -1.360241000 1.684490000
F -0.891556000 -3.281178000 1.140732000
F -8.430305000 2.550075000 0.274486000
F -7.403135000 5.019174000 0.256935000
F -8.808508000 7.054569000 -0.821243000
F -11.214573000 6.609220000 -1.889250000
F -12.275417000 4.156160000 -1.840573000
F -5.443566000 0.635341000 2.920405000
F -4.497133000 2.843366000 1.749470000
F -4.630071000 3.106880000 -0.938538000
F -5.741743000 1.157200000 -2.431219000
F -6.714709000 -1.016619000 -1.250906000
H -11.351773000 -0.485231000 -1.756716000
H -2.922672000 -6.399748000 -1.424390000
H -8.179629000 -3.251290000 2.630670000
C 1.647097000 7.722635000 0.639679000
C 0.328853000 7.475662000 0.313642000
H -0.262728000 8.092929000 -0.054979000
C 0.031904000 6.164987000 0.622981000
H -0.790571000 5.748092000 0.492801000
C 1.165147000 5.572926000 1.164127000
C 1.462799000 4.243497000 1.561354000
C 0.437576000 3.201207000 1.254447000
C -0.289348000 2.575354000 2.229770000
C -1.179300000 1.581161000 1.984283000
C -1.391877000 1.199749000 0.679910000
C -0.699790000 1.788168000 -0.327179000
C 0.181703000 2.781553000 -0.036772000
C 2.629218000 3.852015000 2.164384000
C 3.076450000 2.536671000 2.534532000
H 2.619601000 1.736353000 2.400687000
C 4.271201000 2.685436000 3.107074000
H 4.811614000 2.007762000 3.447609000
C 4.567397000 4.094295000 3.101921000
C 5.778610000 4.751530000 3.714144000
C 5.747499000 4.450346000 5.217713000
H 6.527888000 4.819500000 5.636483000
H 4.961105000 4.838274000 5.607256000
H 5.733236000 3.499392000 5.353227000
C 5.743089000 6.269955000 3.519253000
H 5.747942000 6.471006000 2.579530000
H 4.946705000 6.625647000 3.918134000
H 6.512676000 6.663694000 3.934872000
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C 7.992549000 3.474546000 3.708445000
H 7.897043000 3.360267000 4.626695000
C 9.108350000 2.935673000 3.090007000
C 9.236006000 3.136128000 1.731166000
H 9.974564000 2.791353000 1.282412000
C 8.293092000 3.835040000 1.031032000
H 8.404743000 3.968751000 0.116060000
C 7.177863000 4.346533000 1.665870000
H 6.534750000 4.805707000 1.174013000
C 10.133560000 2.094054000 3.863398000
C 9.892073000 2.108152000 5.366801000
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H 9.912816000 3.013368000 5.684867000
H 9.035650000 1.721205000 5.556636000
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H 11.743427000 2.592416000 2.650629000

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H 14.150379000 -1.394285000 -1.996293000
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F -1.854103000 0.995003000 2.984360000
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F 8.407496000 -2.511057000 -0.186273000
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H -3.813793000 5.308875000 -2.435022000
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H -2.223675000 7.447224000 -0.651890000
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O 7.032979000 -2.216650000 -1.259777000
C 6.751722000 -4.416634000 -2.160690000
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H 7.586980000 -5.124140000 -2.219989000
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H 8.968255000 -3.207671000 -3.485762000
C 12.102964000 -6.385500000 -1.718048000
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C -10.432277000 8.235381000 2.727892000
C -12.028169000 6.204008000 2.627498000
H -9.421759000 8.541492000 2.454754000
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H -10.573781000 8.353512000 3.808522000
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O 8.542955000 -4.689043000 3.576707000
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C -10.852564000 4.777087000 -5.281104000

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O -7.659591000 2.192277000 2.008624000
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H -6.221012000 3.909830000 4.168006000
H -7.817253000 4.618561000 3.950457000
H -8.943519000 2.354487000 4.838403000
H -7.347278000 1.645755000 5.055952000
C 2.523097000 -5.483496000 -2.335983000
O 2.370498000 -4.663749000 -1.451160000
C 2.322846000 -6.969934000 -2.091415000
C 2.923941000 -5.074626000 -3.743662000
H 2.039162000 -7.138230000 -1.051869000
H 3.037259000 -3.991141000 -3.795365000
H 3.2422376000 -7.522625000 -2.316660000
H 1.544921000 -7.365988000 -2.754523000
H 2.168075000 -5.401128000 -4.467404000
H 3.865531000 -5.557764000 -4.029540000
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O 1.474747000 0.612110000 2.593826000
C 0.947856000 -1.018509000 4.265397000
C 2.901814000 0.655705000 4.515352000
H 0.150993000 -1.304109000 3.577722000
H 3.395470000 1.475863000 3.992763000
H 0.515999000 -0.731961000 5.231383000
H 1.599288000 -1.880030000 4.452900000
H 3.624951000 -0.144376000 4.712029000
H 2.541663000 1.003694000 5.490511000
C -1.329403000 -0.707974000 -4.171823000
O -1.123008000 -0.593630000 -2.979134000
C -0.175113000 -0.338912000 -5.088786000
C -2.672196000 -1.214534000 -4.671536000
H 0.601855000 0.170609000 -4.517681000
H -3.246466000 -1.621817000 -3.838596000
H -0.522872000 0.311488000 -5.899824000
H 0.242291000 -1.236558000 -5.559685000
H -2.529867000 -1.988668000 -5.434555000
H -3.235748000 -0.402517000 -5.145643000

Final structure obtained from PM6 level optimization of dimer M-II with ten acetone molecule.

C 3.086499000 7.979282000 -0.028657000
C 1.826006000 7.919594000 0.595710000
H 1.401138000 8.665351000 1.233937000
C 1.226765000 6.690497000 0.241253000
H 0.259964000 6.334872000 0.565798000
C 2.118404000 5.998311000 -0.606572000
C 2.002652000 4.680267000 -1.196331000
C 0.787414000 3.923375000 -0.803791000
C -0.289238000 3.765181000 -1.692394000
C -1.453886000 3.073658000 -1.328455000
C -1.567446000 2.528206000 -0.040937000
C -0.508555000 2.669706000 0.867625000
C 0.650136000 3.362597000 0.478066000
C 2.904827000 4.111797000 -2.037687000
C 2.928068000 2.737965000 -2.605624000
H 2.170556000 1.990758000 -2.407906000
C 4.049517000 2.630098000 -3.358929000
H 4.421764000 1.783368000 -3.900081000
C 4.743872000 3.948367000 -3.298794000
C 6.029583000 4.279287000 -4.039196000
C 5.878467000 3.745362000 -5.476085000
H 6.704031000 4.076757000 -6.115063000
H 4.949781000 4.108173000 -5.932910000
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C 8.274105000 3.051337000 -3.973234000
H 8.238477000 2.979600000 -5.058105000
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C 9.407297000 2.636029000 -1.877500000
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H 9.472568000 1.329039000 -5.834630000
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H 9.800266000 -1.295287000 2.472596000
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H 4.233617000 9.226289000 -2.174473000
H 4.850844000 10.645258000 -1.304867000
H 3.113613000 10.328110000 -1.381470000
C 3.972987000 9.975144000 1.212570000
H 3.065999000 10.578456000 1.095865000
H 4.820505000 10.661809000 1.316285000
H 3.877051000 9.422996000 2.154771000
N 3.250689000 6.817796000 -0.769108000
N 4.085997000 4.799443000 -2.529148000
N 11.473798000 -0.033016000 -2.528688000
N 13.493852000 -0.407842000 -0.530975000
N 10.106201000 1.867948000 3.423130000
N 7.902339000 3.511869000 2.625391000
F -0.210146000 4.291285000 -2.910415000
F -2.451659000 2.940854000 -2.199053000
F -2.669346000 1.878487000 0.308692000
F -0.598917000 2.144159000 2.083246000
F 1.647158000 3.484634000 1.345738000
F 9.563292000 -3.113274000 -0.057112000
F 8.740189000 -5.707744000 -0.142999000
F 10.328596000 -7.602933000 -1.300644000
F 12.720393000 -6.880600000 -2.410823000
F 13.486240000 -4.279128000 -2.398868000
F 6.740668000 -0.729472000 4.013971000
F 5.575300000 -3.053741000 3.233104000
F 5.537898000 -3.736528000 0.582593000
F 6.682062000 -2.075700000 -1.262856000
F 7.886046000 0.221069000 -0.457433000
H 12.172465000 0.512284000 -2.033724000
H 4.063397000 6.574292000 -1.332290000
H 9.798657000 2.830156000 3.517439000
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C -0.230968000 -5.128963000 1.025368000
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C 0.792687000 -2.187866000 2.773928000
C 1.831149000 -1.300454000 2.452473000
C 1.736642000 -0.506750000 1.299872000
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C -4.440072000 -2.890682000 4.163530000
C -5.730518000 -3.389110000 4.793486000
C -5.849800000 -2.735102000 6.182919000
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H -6.020747000 -1.655167000 6.110037000
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F 2.902116000 -1.212174000 3.236356000
F 2.719342000 0.326705000 0.983715000
F 0.503079000 0.142945000 -0.612521000
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C 2.586436000 -3.385086000 -1.349062000
O 1.978623000 -3.207026000 -0.312883000
C 2.866391000 -2.275117000 -2.311073000
C 3.102153000 -4.745051000 -1.728699000
H 2.111926000 -1.465639000 -2.238734000
H 3.034204000 -5.445590000 -0.883096000
H 2.906183000 -2.598790000 -3.354729000
H 3.828894000 -1.792796000 -2.082807000
H 4.152684000 -4.713858000 -2.045827000
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O 11.690085000 -6.400076000 2.484085000
C 12.639788000 -8.387763000 1.592935000
C 13.724956000 -6.101866000 1.296896000
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H 13.456544000 -5.030489000 1.211414000
H 13.591385000 -8.833743000 1.908470000
H 12.518686000 -8.614264000 0.523727000
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H -8.126001000 4.829242000 4.332891000
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O 10.103513000 -4.847047000 -4.156750000
C 10.328810000 -5.912348000 -6.267517000
C 11.634386000 -3.811804000 -5.652553000
H 9.733009000 -6.726726000 -5.827884000
H 11.491353000 -2.876208000 -5.081016000
H 11.238190000 -6.356117000 -6.690080000

H 9.745463000 -5.503629000 -7.103359000
H 11.591155000 -3.558052000 -6.716644000
H 12.658487000 -4.147268000 -5.434498000
C 9.425074000 -4.089098000 3.034353000
O 9.089532000 -3.293333000 2.178252000
C 8.695857000 -5.379813000 3.252489000
C 10.611094000 -3.848992000 3.918856000
H 7.829634000 -5.477604000 2.583243000
H 11.023574000 -2.838986000 3.783991000
H 8.330894000 -5.480831000 4.279994000
H 9.366227000 -6.235117000 3.058558000
H 11.410839000 -4.573678000 3.675958000
H 10.376847000 -3.975911000 4.981609000
C -2.514400000 6.487714000 -0.389455000
O -1.840625000 5.826921000 0.373173000
C -2.008093000 7.766141000 -0.990796000
C -3.899841000 6.068804000 -0.784693000
H -0.912491000 7.852313000 -0.881781000
H -4.261925000 5.240706000 -0.154786000
H -2.444702000 8.640040000 -0.489976000
H -2.238153000 7.850830000 -2.059205000
H -3.926379000 5.707062000 -1.823302000
H -4.626797000 6.885592000 -0.709457000
C 0.148273000 0.715157000 4.851355000
O -0.463931000 0.706198000 3.803236000
C 1.272410000 1.673180000 5.108428000
C -0.172910000 -0.244962000 5.959898000
H 1.305169000 2.467544000 4.345484000
H -0.959969000 -0.956163000 5.660601000
H 2.245712000 1.161377000 5.067498000
H 1.201760000 2.156796000 6.088998000
H -0.528721000 0.273865000 6.858148000
H 0.703421000 -0.838788000 6.252900000
C -0.023250000 0.233155000 -3.609934000
O 0.924158000 0.270903000 -2.850406000
C -1.094551000 -0.806883000 -3.487743000
C -0.183788000 1.232212000 -4.717925000
H -0.747787000 -1.676072000 -2.906475000
H 0.599592000 2.005156000 -4.679413000
H -1.461787000 -1.169034000 -4.453705000
H -1.964399000 -0.406552000 -2.942274000
H -1.153161000 1.747234000 -4.669198000
H -0.122520000 0.757191000 -5.705165000

Input used for optimization of M-II cluster containing six molecules.
#T opt oniom(pm6:uff)=embed geom=connectivity test

test

0 1 0 1 0 1
C-C_R 0 -3.40800000 0.34300000 1.06800000 L
C-C_R 0 -2.47400000 0.64600000 2.03800000 L
H-H_- 0 -2.40400000 0.23400000 2.87000000 L
C-C_R 0 -1.66200000 1.65900000 1.57300000 L
H-H_- 0 -0.95700000 2.04900000 2.04000000 L
C-C_R 0 -2.07100000 1.99700000 0.29000000 L
C-C_R 0 -1.67100000 3.01600000 -0.61300000 L H-H_- 8
C-C_R 0 -0.70500000 4.03300000 -0.09900000 H
C-C_R 0 0.58500000 4.11400000 -0.54700000 H
C-C_R 0 1.46300000 5.06600000 -0.14500000 H
C-C_R 0 1.04900000 5.98600000 0.79100000 H
C-C_R 0 -0.21900000 5.95100000 1.27100000 H
C-C_R 0 -1.06600000 4.97800000 0.84200000 H
C-C_R 0 -2.13600000 3.14900000 -1.89500000 L
C-C_R 0 -1.87200000 4.17500000 -2.86700000 L
H-H_- 0 -1.33400000 4.92600000 -2.75000000 L
C-C_R 0 -2.54600000 3.84200000 -3.96800000 L
H-H_- 0 -2.57200000 4.31800000 -4.76800000 L
C-C_R 0 -3.22500000 2.60300000 -3.68700000 L
C-C_3 0 -4.05100000 1.80100000 -4.66000000 L
C-C_3 0 -3.12400000 1.38800000 -5.81000000 L
H-H_- 0 -3.62600000 0.90800000 -6.47200000 L
H-H_- 0 -2.42200000 0.82800000 -5.47200000 L
H-H_- 0 -2.74000000 2.17300000 -6.20900000 L
C-C_3 0 -4.60700000 0.53500000 -4.00200000 L
H-H_- 0 -5.17900000 0.78100000 -3.27000000 L
H-H_- 0 -3.88200000 -0.00100000 -3.67500000 L
H-H_- 0 -5.11000000 0.03400000 -4.64700000 L
C-C_R 0 -5.20300000 2.68600000 -5.12700000 L
C-C_R 0 -5.38300000 3.04800000 -6.44900000 L
H-H_- 0 -4.77900000 2.73100000 -7.08100000 L
C-C_R 0 -6.41800000 3.86300000 -6.87800000 L
C-C_R 0 -7.31100000 4.30500000 -5.92400000 L
H-H_- 0 -8.02100000 4.85100000 -6.17600000 L
C-C_R 0 -7.17000000 3.95300000 -4.61100000 L
H-H_- 0 -7.79100000 4.25300000 -3.98500000 L
C-C_R 0 -6.11800000 3.15600000 -4.20300000 L

H-H_ 0 -6.02400000 2.93800000 -3.30300000 L
C-C_3 0 -6.53900000 4.31200000 -8.34100000 L
C-C_3 0 -5.54700000 3.60900000 -9.25700000 L
H-H_ 0 -5.68700000 3.89900000 -10.16100000 L
H-H_ 0 -5.67800000 2.66000000 -9.20000000 L
H-H_ 0 -4.65300000 3.82600000 -8.98700000 L
C-C_3 0 -7.96800000 4.04600000 -8.87300000 L
H-H_ 0 -8.60700000 4.49600000 -8.31400000 L
H-H_ 0 -8.14400000 3.10200000 -8.86200000 L
H-H_ 0 -8.04100000 4.37500000 -9.77300000 L
C-C_R 0 -6.25400000 5.79700000 -8.35300000 L
C-C_R 0 -5.03300000 6.46500000 -8.42000000 L
H-H_ 0 -4.19900000 6.06600000 -8.51500000 L
C-C_R 0 -5.27500000 7.80900000 -8.32400000 L
H-H_ 0 -4.63400000 8.48300000 -8.34500000 L
C-C_R 0 -6.64800000 7.98600000 -8.19200000 L
C-C_R 0 -7.43200000 9.14700000 -8.06700000 L H-H_ 55
C-C_R 0 -6.66600000 10.41400000 -8.10100000 H
C-C_R 0 -5.89800000 10.85300000 -7.05700000 H
C-C_R 0 -5.07600000 11.93500000 -7.12300000 H
C-C_R 0 -4.99300000 12.63000000 -8.27200000 H
C-C_R 0 -5.73100000 12.25100000 -9.33700000 H
C-C_R 0 -6.55800000 11.17200000 -9.23200000 H
C-C_R 0 -8.80700000 9.16600000 -7.97800000 L
C-C_R 0 -9.69400000 10.26900000 -7.87100000 L
H-H_ 0 -9.45500000 11.16600000 -7.81100000 L
C-C_R 0 -10.94000000 9.77400000 -7.87300000 L
H-H_ 0 -11.72800000 10.26400000 -7.80500000 L
C-C_R 0 -10.83800000 8.34800000 -7.99700000 L
C-C_3 0 -11.97600000 7.35600000 -8.05200000 L
C-C_3 0 -11.46700000 5.95900000 -8.42100000 L
H-H_ 0 -11.00900000 5.99800000 -9.26400000 L
H-H_ 0 -12.21100000 5.35600000 -8.48700000 L
H-H_ 0 -10.86300000 5.64900000 -7.74100000 L
C-C_3 0 -12.96700000 7.81900000 -9.14800000 L
H-H_ 0 -13.30300000 8.69100000 -8.92900000 L
H-H_ 0 -13.69900000 7.19800000 -9.20000000 L
H-H_ 0 -12.51600000 7.85500000 -9.99300000 L
C-C_R 0 -12.60700000 7.31500000 -6.66200000 L
C-C_R 0 -13.91600000 7.64800000 -6.44400000 L
H-H_ 0 -14.47100000 7.86800000 -7.16000000 L
C-C_R 0 -14.40000000 7.65100000 -5.16200000 L
H-H_ 0 -15.29700000 7.84700000 -5.01900000 L
C-C_R 0 -13.59200000 7.37100000 -4.07400000 L
H-H_ 0 -13.94200000 7.41100000 -3.21400000 L
C-C_R 0 -12.25100000 7.03000000 -4.26400000 L
C-C_R 0 -11.82000000 6.99000000 -5.57600000 L
H-H_ 0 -10.94300000 6.73000000 -5.73700000 L
C-C_3 0 -11.32200000 6.67000000 -3.11800000 L
C-C_3 0 -11.79800000 7.23700000 -1.76500000 L
H-H_ 0 -11.12800000 7.07300000 -1.09800000 L
H-H_ 0 -12.61800000 6.80800000 -1.50900000 L
H-H_ 0 -11.94300000 8.18100000 -1.84700000 L
C-C_3 0 -11.27000000 5.13700000 -3.02700000 L
H-H_ 0 -10.86500000 4.78300000 -3.82300000 L
H-H_ 0 -12.16100000 4.79100000 -2.94000000 L
H-H_ 0 -10.75000000 4.88000000 -2.26100000 L
C-C_R 0 -9.94100000 7.22800000 -3.35000000 L
C-C_R 0 -9.47000000 8.27900000 -4.14300000 L
H-H_ 0 -9.98700000 8.82000000 -4.69500000 L
C-C_R 0 -8.10900000 8.37500000 -3.96500000 L
H-H_ 0 -7.54400000 8.98600000 -4.37900000 L
C-C_R 0 -7.73100000 7.39300000 -3.05300000 L
C-C_R 0 -6.45900000 7.02700000 -2.56800000 L H-H_ 102
C-C_R 0 -5.31100000 7.80300000 -3.10000000 H
C-C_R 0 -4.93100000 9.00300000 -2.57100000 H
C-C_R 0 -3.87500000 9.71700000 -3.05200000 H
C-C_R 0 -3.15100000 9.22700000 -4.10200000 H
C-C_R 0 -3.50000000 8.05000000 -4.65000000 H
C-C_R 0 -4.55400000 7.37000000 -4.15600000 H
C-C_R 0 -6.21300000 5.99900000 -1.68800000 L
C-C_R 0 -4.97300000 5.48500000 -1.20600000 L
H-H_ 0 -4.12300000 5.79200000 -1.42500000 L
C-C_R 0 -5.26600000 4.46900000 -0.37700000 L
H-H_ 0 -4.66100000 3.93100000 0.07800000 L
C-C_R 0 -6.69400000 4.37500000 -0.32900000 L
C-C_3 0 -7.50200000 3.41800000 0.53700000 L
C-C_3 0 -8.99700000 3.70200000 0.36900000 L
H-H_ 0 -9.18600000 4.59800000 0.66000000 L
H-H_ 0 -9.50100000 3.07900000 0.89700000 L
H-H_ 0 -9.23800000 3.60900000 -0.55600000 L
C-C_3 0 -7.11100000 3.66000000 2.00600000 L
H-H_ 0 -6.15600000 3.61900000 2.09600000 L
H-H_ 0 -7.51300000 2.98600000 2.56000000 L
H-H_ 0 -7.42100000 4.52700000 2.28300000 L
C-C_R 0 -7.13900000 1.98800000 0.10100000 L
C-C_R 0 -7.75700000 1.38100000 -0.99500000 L

H-H_ 0 -8.43600000 1.82700000 -1.44800000 L
C-C_R 0 -7.37900000 0.15100000 -1.40300000 L
H-H_ 0 -7.82200000 -0.24700000 -2.11800000 L
C-C_R 0 -6.35600000 -0.53200000 -0.78600000 L
H-H_ 0 -6.10200000 -1.37000000 -1.09800000 L
C-C_R 0 -5.70900000 0.02400000 0.28600000 L
C-C_R 0 -6.13000000 1.27900000 0.71000000 L
H-H_ 0 -5.70700000 1.65900000 1.44500000 L
C-C_3 0 -4.54300000 -0.63100000 1.01500000 L
C-C_3 0 -4.06100000 -1.91300000 0.30200000 L
H-H_ 0 -3.71400000 -1.68500000 -0.56400000 L
H-H_ 0 -4.79600000 -2.52100000 0.20100000 L
H-H_ 0 -3.37100000 -2.33000000 0.82200000 L
C-C_3 0 -5.00000000 -1.00200000 2.44200000 L
H-H_ 0 -4.29100000 -1.47100000 2.89000000 L
H-H_ 0 -5.77500000 -1.56600000 2.39200000 L
H-H_ 0 -5.21200000 -0.20400000 2.92900000 L
N-N_R 0 -3.11700000 1.14900000 0.01900000 L
N-N_R 0 -3.00000000 2.20100000 -2.46600000 L
N-N_R 0 -7.20800000 6.71900000 -8.21700000 L
N-N_R 0 -9.56100000 7.98600000 -8.04200000 L
N-N_R 0 -8.88500000 6.72100000 -2.69500000 L
N-N_R 0 -7.25100000 5.26200000 -1.11000000 L
F-F_- 0 1.01000000 3.21600000 -1.45200000 H
F-F_- 0 2.71300000 5.10300000 -0.63000000 H
F-F_- 0 1.90000000 6.94400000 1.18300000 H
F-F_- 0 -0.61600000 6.86100000 2.17600000 H
F-F_- 0 -2.31900000 4.99100000 1.31500000 H
F-F_- 0 -5.91100000 10.16100000 -5.89300000 H
F-F_- 0 -4.31900000 12.30200000 -6.07600000 H
F-F_- 0 -4.19700000 13.69600000 -8.38300000 H
F-F_- 0 -5.64600000 12.93400000 -10.49200000 H
F-F_- 0 -7.27600000 10.82300000 -10.31300000 H
F-F_- 0 -5.60000000 9.50600000 -1.52700000 H
F-F_- 0 -3.53400000 10.89700000 -2.49600000 H
F-F_- 0 -2.11100000 9.92300000 -4.57900000 H
F-F_- 0 -2.79400000 7.56600000 -5.69400000 H
F-F_- 0 -4.87500000 6.21100000 -4.74600000 H
H-H_ 0 -8.06300000 6.68200000 -8.16000000 L
H-H_ 0 -3.51400000 1.15300000 -0.75200000 L
H-H_ 0 -8.81100000 6.04700000 -2.16000000 L
C-C_R 0 -1.00100000 7.73500000 -15.04000000 L
C-C_R 0 -1.93500000 8.03800000 -16.01100000 L
H-H_ 0 -2.00500000 7.62600000 -16.84300000 L
C-C_R 0 -2.74700000 9.05100000 -15.54600000 L
H-H_ 0 -3.45200000 9.44100000 -16.01300000 L
C-C_R 0 -2.33800000 9.38900000 -14.26300000 L
C-C_R 0 -2.73700000 10.40800000 -13.35900000 L
H-H_ 173 0 -3.70400000 11.42500000 -13.87400000 H
C-C_R 0 -4.99400000 11.50600000 -13.42500000 H
C-C_R 0 -5.87200000 12.45800000 -13.82700000 H
C-C_R 0 -5.45800000 13.37800000 -14.76400000 H
C-C_R 0 -4.19000000 13.34200000 -15.24400000 H
C-C_R 0 -3.34300000 12.37000000 -14.81500000 H
C-C_R 0 -2.27300000 10.54100000 -12.07700000 L
C-C_R 0 -2.53700000 11.56700000 -11.10600000 L
H-H_ 0 -3.07400000 12.31800000 -11.22300000 L
C-C_R 0 -1.86300000 11.23400000 -10.00500000 L
H-H_ 0 -1.83700000 11.71000000 -9.20500000 L
C-C_R 0 -1.18400000 9.99500000 -10.28600000 L
C-C_3 0 -0.35800000 9.19300000 -9.31200000 L
C-C_3 0 -1.28500000 8.78000000 -8.16200000 L
H-H_ 0 -0.78300000 8.30000000 -7.50100000 L
H-H_ 0 -1.98700000 8.22000000 -8.50100000 L
H-H_ 0 -1.66900000 9.56500000 -7.76300000 L
C-C_3 0 0.19800000 7.92700000 -9.97100000 L
H-H_ 0 0.77000000 8.17300000 -10.70300000 L
H-H_ 0 -0.52700000 7.39000000 -10.29800000 L
H-H_ 0 0.70100000 7.42600000 -9.32500000 L
C-C_R 0 0.79400000 10.07800000 -8.84600000 L
C-C_R 0 0.97400000 10.44000000 -7.52400000 L
H-H_ 0 0.37000000 10.12300000 -6.89100000 L
C-C_R 0 2.00900000 11.25500000 -7.09500000 L
C-C_R 0 2.90200000 11.69700000 -8.04800000 L
H-H_ 0 3.61200000 12.24300000 -7.79700000 L
C-C_R 0 2.76100000 11.34500000 -9.36200000 L
H-H_ 0 3.38200000 11.64500000 -9.98800000 L
C-C_R 0 1.70900000 10.54800000 -9.77000000 L
H-H_ 0 1.61500000 10.33000000 -10.67000000 L
C-C_3 0 2.13000000 11.70400000 -5.63200000 L
C-C_3 0 1.13800000 11.00100000 -4.71600000 L
H-H_ 0 1.27800000 11.29000000 -3.81200000 L
H-H_ 0 1.26900000 10.05200000 -4.77300000 L
H-H_ 0 0.24400000 11.21800000 -4.98500000 L
C-C_3 0 3.55900000 11.43800000 -5.10000000 L
H-H_ 0 4.19800000 11.88800000 -5.65900000 L
H-H_ 0 3.73500000 10.49400000 -5.11100000 L

H-H_ 0 3.63200000 11.76700000 -4.20000000 L
C-C_R 0 1.84500000 13.18900000 -5.62000000 L
C-C_R 0 0.62400000 13.85700000 -5.55300000 L
H-H_ 0 -0.21000000 13.45800000 -5.45800000 L
C-C_R 0 0.86600000 15.20100000 -5.64800000 L
H-H_ 0 0.22500000 15.87500000 -5.62800000 L
C-C_R 0 2.23900000 15.37800000 -5.78100000 L
C-C_R 0 3.02300000 16.53900000 -5.90600000 L H-H_ 220
C-C_R 0 2.25700000 17.80600000 -5.87200000 H
C-C_R 0 1.48900000 18.24500000 -6.91600000 H
C-C_R 0 0.66700000 19.32700000 -6.84900000 H
C-C_R 0 0.58400000 20.02200000 -5.70100000 H
C-C_R 0 1.32200000 19.64300000 -4.63600000 H
C-C_R 0 2.14900000 18.56400000 -4.74100000 H
C-C_R 0 4.39800000 16.55800000 -5.99500000 L
C-C_R 0 5.28500000 17.66100000 -6.10200000 L
H-H_ 0 5.04600000 18.55800000 -6.16200000 L
C-C_R 0 6.53100000 17.16600000 -6.10000000 L
H-H_ 0 7.31900000 17.65600000 -6.16800000 L
C-C_R 0 6.42900000 15.74000000 -5.97600000 L
C-C_3 0 7.56700000 14.74800000 -5.92100000 L
C-C_3 0 7.05800000 13.35100000 -5.55200000 L
H-H_ 0 6.60000000 13.39000000 -4.70900000 L
H-H_ 0 7.80200000 12.74800000 -5.48600000 L
H-H_ 0 6.45400000 13.04100000 -6.23200000 L
C-C_3 0 8.55900000 15.21100000 -4.82500000 L
H-H_ 0 8.89400000 16.08300000 -5.04400000 L
H-H_ 0 9.29000000 14.59000000 -4.77300000 L
H-H_ 0 8.10700000 15.24700000 -3.97900000 L
C-C_R 0 8.19800000 14.70700000 -7.31100000 L
C-C_R 0 9.50700000 15.04000000 -7.52900000 L
H-H_ 0 10.06200000 15.26000000 -6.81300000 L
C-C_R 0 9.99100000 15.04300000 -8.81100000 L
H-H_ 0 10.88800000 15.23900000 -8.95400000 L
C-C_R 0 9.18300000 14.76300000 -9.89800000 L
H-H_ 0 9.53300000 14.80300000 -10.75900000 L
C-C_R 0 7.84300000 14.42200000 -9.70900000 L
C-C_R 0 7.41100000 14.38200000 -8.39700000 L
H-H_ 0 6.53400000 14.12200000 -8.23600000 L
C-C_3 0 6.91300000 14.06200000 -10.85400000 L
C-C_3 0 7.38900000 14.62900000 -12.20800000 L
H-H_ 0 6.72000000 14.46500000 -12.87500000 L
H-H_ 0 8.21000000 14.20000000 -12.46400000 L
H-H_ 0 7.53400000 15.57300000 -12.12600000 L
C-C_3 0 6.86100000 12.52900000 -10.94600000 L
H-H_ 0 6.45600000 12.17500000 -10.15000000 L
H-H_ 0 7.75200000 12.18300000 -11.03300000 L
H-H_ 0 6.34100000 12.27200000 -11.71200000 L
C-C_R 0 5.53200000 14.62000000 -10.62300000 L
C-C_R 0 5.06100000 15.67100000 -9.82900000 L
H-H_ 0 5.57800000 16.21200000 -9.27800000 L
C-C_R 0 3.70000000 15.76700000 -10.00800000 L
H-H_ 0 3.13500000 16.37800000 -9.59400000 L
C-C_R 0 3.32200000 14.78500000 -10.91900000 L
C-C_R 0 2.05000000 14.41900000 -11.40500000 L H-H_ 267
C-C_R 0 0.90200000 15.19500000 -10.87200000 H
C-C_R 0 0.52200000 16.39500000 -11.40100000 H
C-C_R 0 -0.53400000 17.10900000 -10.92100000 H
C-C_R 0 -1.25800000 16.61900000 -9.87000000 H
C-C_R 0 -0.90900000 15.44200000 -9.32300000 H
C-C_R 0 0.14500000 14.76200000 -9.81600000 H
C-C_R 0 1.80400000 13.39100000 -12.28500000 L
C-C_R 0 0.56400000 12.87700000 -12.76700000 L
H-H_ 0 -0.28600000 13.18400000 -12.54800000 L
C-C_R 0 0.85700000 11.86100000 -13.59600000 L
H-H_ 0 0.25200000 11.32300000 -14.05100000 L
C-C_R 0 2.28500000 11.76700000 -13.64400000 L
C-C_3 0 3.09300000 10.81000000 -14.50900000 L
C-C_3 0 4.58800000 11.09400000 -14.34200000 L
H-H_ 0 4.77700000 11.99000000 -14.63200000 L
H-H_ 0 5.09200000 10.47100000 -14.87000000 L
H-H_ 0 4.82900000 11.00100000 -13.41700000 L
C-C_3 0 2.70200000 11.05200000 -15.97900000 L
H-H_ 0 1.74700000 11.01100000 -16.06900000 L
H-H_ 0 3.10400000 10.37800000 -16.53300000 L
H-H_ 0 3.01200000 11.91900000 -16.25600000 L
C-C_R 0 2.73000000 9.38000000 -14.07300000 L
C-C_R 0 3.34800000 8.77300000 -12.97800000 L
H-H_ 0 4.02700000 9.21900000 -12.52500000 L
C-C_R 0 2.97000000 7.54300000 -12.57000000 L
H-H_ 0 3.41300000 7.14500000 -11.85400000 L
C-C_R 0 1.94700000 6.86000000 -13.18600000 L
H-H_ 0 1.69300000 6.02100000 -12.87500000 L
C-C_R 0 1.30000000 7.41600000 -14.25800000 L
C-C_R 0 1.72100000 8.67100000 -14.68200000 L
H-H_ 0 1.29800000 9.05100000 -15.41800000 L
C-C_3 0 0.13400000 6.76100000 -14.98800000 L

C-C_3 0 -0.34800000 5.47900000 -14.27500000 L
H-H_- 0 -0.69500000 5.70700000 -13.40800000 L
H-H_- 0 0.38700000 4.87100000 -14.17400000 L
H-H_- 0 -1.03800000 5.06200000 -14.79400000 L
C-C_3 0 0.59100000 6.39000000 -16.41400000 L
H-H_- 0 -0.11800000 5.92100000 -16.86200000 L
H-H_- 0 1.36600000 5.82600000 -16.36500000 L
H-H_- 0 0.80300000 7.18800000 -16.90100000 L
N-N_R 0 -1.29200000 8.54100000 -13.99100000 L
N-N_R 0 -1.40900000 9.59300000 -11.50700000 L
N-N_R 0 2.79900000 14.11100000 -5.75600000 L
N-N_R 0 5.15200000 15.37800000 -5.93100000 L
N-N_R 0 4.47600000 14.11300000 -11.27800000 L
N-N_R 0 2.84200000 12.65400000 -12.86300000 L
F-F_- 0 -5.41900000 10.60800000 -12.52000000 H
F-F_- 0 -7.12200000 12.49500000 -13.34300000 H
F-F_- 0 -6.30900000 14.33600000 -15.15500000 H
F-F_- 0 -3.79300000 14.25300000 -16.14900000 H
F-F_- 0 -2.09000000 12.38300000 -15.28700000 H
F-F_- 0 1.50200000 17.55300000 -8.08000000 H
F-F_- 0 -0.09000000 19.69400000 -7.89700000 H
F-F_- 0 -0.21200000 21.08800000 -5.58900000 H
F-F_- 0 1.23700000 20.32600000 -3.48100000 H
F-F_- 0 2.86700000 18.21500000 -3.66000000 H
F-F_- 0 1.19100000 16.89800000 -12.44600000 H
F-F_- 0 -0.87500000 18.28900000 -11.47700000 H
F-F_- 0 -2.29800000 17.31500000 -9.39400000 H
F-F_- 0 -1.61500000 14.95800000 -8.27900000 H
F-F_- 0 0.46600000 13.60300000 -9.22700000 H
H-H_ 0 3.65400000 14.07400000 -5.81300000 L
H-H_- 0 -0.89500000 8.54500000 -13.22100000 L
H-H_- 0 4.40200000 13.43900000 -11.81300000 L
C-C_R 0 -3.40800000 15.12700000 1.06800000 L
C-C_R 0 -2.47400000 15.43000000 2.03800000 L
H-H_- 0 -2.40400000 15.01700000 2.87000000 L
C-C_R 0 -1.66200000 16.44300000 1.57300000 L
H-H_- 0 -0.95700000 16.83300000 2.04000000 L
C-C_R 0 -2.07100000 16.78100000 0.29000000 L
C-C_R 0 -1.67100000 17.80000000 -0.61300000 L H-H_- 338
C-C_R 0 -0.70500000 18.81700000 -0.09900000 H
C-C_R 0 0.58500000 18.89800000 -0.54700000 H
C-C_R 0 1.46300000 19.85000000 -0.14500000 H
C-C_R 0 1.04900000 20.77000000 0.79100000 H
C-C_R 0 -0.21900000 20.73400000 1.27100000 H
C-C_R 0 -1.06600000 19.76200000 0.84200000 H
C-C_R 0 -2.13600000 17.93300000 -1.89500000 H
C-C_R 0 -1.87200000 18.95900000 -2.86700000 L
H-H_- 0 -1.33400000 19.71000000 -2.75000000 L
C-C_R 0 -2.54600000 18.62600000 -3.96800000 L
H-H_- 0 -2.57200000 19.10200000 -4.76800000 L
C-C_R 0 -3.22500000 17.38700000 -3.68700000 L
C-C_3 0 -4.05100000 16.58500000 -4.66000000 L
C-C_3 0 -3.12400000 16.17200000 -5.81000000 L
H-H_- 0 -3.62600000 15.69200000 -6.47200000 L
H-H_- 0 -2.42200000 15.61200000 -5.47200000 L
H-H_- 0 -2.74000000 16.95700000 -6.20900000 L
C-C_3 0 -4.60700000 15.31900000 -4.00200000 L
H-H_- 0 -5.17900000 15.56400000 -3.27000000 L
H-H_- 0 -3.88200000 14.78200000 -3.67500000 L
H-H_- 0 -5.11000000 14.81800000 -4.64700000 L
C-C_R 0 -5.20300000 17.47000000 -5.12700000 L
C-C_R 0 -5.38300000 17.83200000 -6.44900000 L
H-H_- 0 -4.77900000 17.51400000 -7.08100000 L
C-C_R 0 -6.41800000 18.64700000 -6.87800000 L
C-C_R 0 -7.31100000 19.08900000 -5.92400000 L
H-H_- 0 -8.02100000 19.63400000 -6.17600000 L
C-C_R 0 -7.17000000 18.73700000 -4.61100000 L
H-H_- 0 -7.79100000 19.03700000 -3.98500000 L
C-C_R 0 -6.11800000 17.94000000 -4.20300000 L
H-H_- 0 -6.02400000 17.72100000 -3.30300000 L
C-C_3 0 -6.53900000 19.09600000 -8.34100000 L
C-C_3 0 -5.54700000 18.39300000 -9.25700000 L
H-H_- 0 -5.68700000 18.68200000 -10.16100000 L
H-H_- 0 -5.67800000 17.44400000 -9.20000000 L
H-H_- 0 -4.65300000 18.61000000 -8.98700000 L
C-C_3 0 -7.96800000 18.83000000 -8.87300000 L
H-H_- 0 -8.60700000 19.28000000 -8.31400000 L
H-H_- 0 -8.14400000 17.88600000 -8.86200000 L
H-H_- 0 -8.04100000 19.15800000 -9.77300000 L
C-C_R 0 -6.25400000 20.58100000 -8.35300000 L
C-C_R 0 -5.03300000 21.24900000 -8.42000000 L
H-H_- 0 -4.19900000 20.85000000 -8.51500000 L
C-C_R 0 -5.27500000 22.59300000 -8.32400000 L
H-H_- 0 -4.63400000 23.26700000 -8.34500000 L
C-C_R 0 -6.64800000 22.77000000 -8.19200000 L
C-C_R 0 -7.43200000 23.93100000 -8.06700000 L H-H_- 385
C-C_R 0 -6.66600000 25.19800000 -8.10100000 H

C-C_R 0 -5.89800000 25.63700000 -7.05700000 H
C-C_R 0 -5.07600000 26.71900000 -7.12300000 H
C-C_R 0 -4.49300000 27.41400000 -8.27200000 H
C-C_R 0 -5.73100000 27.03500000 -9.33700000 H
C-C_R 0 -6.55800000 25.95600000 -9.23200000 H
C-C_R 0 -8.80700000 23.95000000 -7.97800000 L
C-C_R 0 -9.69400000 25.05300000 -7.87100000 L
H-H_- 0 -9.45500000 25.95000000 -7.81100000 L
C-C_R 0 -10.94000000 24.55800000 -7.87300000 L
H-H_- 0 -11.72800000 25.04800000 -7.80500000 L
C-C_R 0 -10.83800000 23.13200000 -7.99700000 L
C-C_3 0 -11.97600000 22.14000000 -8.05200000 L
C-C_3 0 -11.46700000 20.74300000 -8.42100000 L
H-H_- 0 -11.00900000 20.78200000 -9.26400000 L
H-H_- 0 -12.21100000 20.14000000 -8.48700000 L
H-H_- 0 -10.86300000 20.43300000 -7.74100000 L
C-C_3 0 -12.96700000 22.60300000 -9.14800000 L
H-H_- 0 -13.30300000 23.47500000 -8.92900000 L
H-H_- 0 -13.69900000 21.98200000 -9.20000000 L
H-H_- 0 -12.51600000 22.63900000 -9.99300000 L
C-C_R 0 -12.60700000 22.09900000 -6.66200000 L
C-C_R 0 -13.91600000 22.43200000 -6.44400000 L
H-H_- 0 -14.47100000 22.65200000 -7.16000000 L
C-C_R 0 -14.40000000 22.43500000 -5.16200000 L
H-H_- 0 -15.29700000 22.63100000 -5.01900000 L
C-C_R 0 -13.59200000 22.15500000 -4.07400000 L
H-H_- 0 -13.94200000 22.19500000 -3.21400000 L
C-C_R 0 -12.25100000 21.81400000 -4.26400000 L
C-C_R 0 -11.82000000 21.77400000 -5.57600000 L
H-H_- 0 -10.94300000 21.51400000 -5.73700000 L
C-C_3 0 -11.32200000 21.45400000 -3.11800000 L
C-C_3 0 -11.79800000 22.02100000 -1.76500000 L
H-H_- 0 -11.12800000 21.85700000 -1.09800000 L
H-H_- 0 -12.61800000 21.59200000 -1.50900000 L
H-H_- 0 -11.94300000 22.96500000 -1.84700000 L
C-C_3 0 -11.27000000 19.92100000 -3.02700000 L
H-H_- 0 -10.86500000 19.56600000 -3.82300000 L
H-H_- 0 -12.16100000 19.57500000 -2.94000000 L
H-H_- 0 -10.75000000 19.66400000 -2.26100000 L
C-C_R 0 -9.94100000 22.01200000 -3.35000000 L
C-C_R 0 -9.47000000 23.06300000 -4.14300000 L
H-H_- 0 -9.98700000 23.60400000 -4.69500000 L
C-C_R 0 -8.10900000 23.15900000 -3.96500000 L
H-H_- 0 -7.54400000 23.77000000 -4.37900000 L
C-C_R 0 -7.73100000 22.17700000 -3.05300000 L
C-C_R 0 -6.45900000 21.81100000 -2.56800000 L H-H_- 432
C-C_R 0 -5.31100000 22.58700000 -3.10000000 H
C-C_R 0 -4.93100000 23.78700000 -2.57100000 H
C-C_R 0 -3.87500000 24.50100000 -3.05200000 H
C-C_R 0 -3.15100000 24.01100000 -4.10200000 H
C-C_R 0 -3.50000000 22.83400000 -4.65000000 H
C-C_R 0 -4.55400000 22.15400000 -4.15600000 H
C-C_R 0 -6.21300000 20.78300000 -1.68800000 L
C-C_R 0 -4.97300000 20.26900000 -1.20600000 L
H-H_- 0 -4.12300000 20.57600000 -1.42500000 L
C-C_R 0 -5.26600000 19.25300000 -0.37700000 L
H-H_- 0 -4.66100000 18.71500000 0.07800000 L
C-C_R 0 -6.69400000 19.15800000 -0.32900000 L
C-C_3 0 -7.50200000 18.20200000 0.53700000 L
C-C_3 0 -8.99700000 18.48600000 0.36900000 L
H-H_- 0 -9.18600000 19.38200000 0.66000000 L
H-H_- 0 -9.50100000 17.86300000 0.89700000 L
H-H_- 0 -9.23800000 18.39300000 -0.55600000 L
C-C_3 0 -7.11100000 18.44400000 2.00600000 L
H-H_- 0 -6.15600000 18.40300000 2.09600000 L
H-H_- 0 -7.51300000 17.77000000 2.56000000 L
H-H_- 0 -7.42100000 19.31100000 2.28300000 L
C-C_R 0 -7.13900000 16.77200000 0.10100000 L
C-C_R 0 -7.75700000 16.16500000 -0.99500000 L
H-H_- 0 -8.43600000 16.61100000 -1.44800000 L
C-C_R 0 -7.37900000 14.93500000 -1.40300000 L
H-H_- 0 -7.82200000 14.53700000 -2.11800000 L
C-C_R 0 -6.35600000 14.25200000 -0.78600000 L
H-H_- 0 -6.10200000 13.41300000 -1.09800000 L
C-C_R 0 -5.70900000 14.80800000 0.28600000 L
C-C_R 0 -6.13000000 16.06300000 0.71000000 L
H-H_- 0 -5.70700000 16.44300000 1.44500000 L
C-C_3 0 -4.54300000 14.15300000 1.01500000 L
C-C_3 0 -4.06100000 12.87100000 0.30200000 L
H-H_- 0 -3.71400000 13.09900000 -0.56400000 L
H-H_- 0 -4.79600000 12.26300000 0.20100000 L
H-H_- 0 -3.37100000 12.45400000 0.82200000 L
C-C_3 0 -5.00000000 13.78200000 2.44200000 L
H-H_- 0 -4.29100000 13.31300000 2.89000000 L
H-H_- 0 -5.77500000 13.21800000 2.39200000 L
H-H_- 0 -5.21200000 14.58000000 2.92900000 L
N-N_R 0 -3.11700000 15.93300000 0.01900000 L

N-N_R 0 -3.00000000 16.98500000 -2.46600000 L
N-N_R 0 -7.20800000 21.50300000 -8.21700000 L
N-N_R 0 -9.56100000 22.77000000 -8.04200000 L
N-N_R 0 -8.88500000 21.50500000 -2.69500000 L
N-N_R 0 -7.25100000 20.04500000 -1.11000000 L
F-F_- 0 1.01000000 18.00000000 -1.45200000 H
F-F_- 0 2.71300000 19.88700000 -0.63000000 H
F-F_- 0 1.90000000 21.72800000 1.18300000 H
F-F_- 0 -0.61600000 21.64500000 2.17600000 H
F-F_- 0 -2.31900000 19.77500000 1.31500000 H
F-F_- 0 -5.91100000 24.94500000 -5.89300000 H
F-F_- 0 -4.31900000 27.08600000 -6.07600000 H
F-F_- 0 -4.19700000 28.48000000 -8.38300000 H
F-F_- 0 -5.64600000 27.71800000 -10.49200000 H
F-F_- 0 -7.27600000 25.60700000 -10.31300000 H
F-F_- 0 -5.60000000 24.29000000 -1.52700000 H
F-F_- 0 -3.53400000 25.68100000 -2.49600000 H
F-F_- 0 -2.11100000 24.70700000 -4.57900000 H
F-F_- 0 -2.79400000 22.35000000 -5.69400000 H
F-F_- 0 -4.87500000 20.99500000 -4.74600000 H
H-H_- 0 -8.06300000 21.46600000 -8.16000000 L
H-H_- 0 -3.51400000 15.93700000 -0.75200000 L
H-H_- 0 -8.81100000 20.83100000 -2.16000000 L
C-C_R 0 3.40800000 29.22500000 -1.06800000 L
C-C_R 0 2.47400000 28.92200000 -2.03800000 L
H-H_- 0 2.40400000 29.33400000 -2.87000000 L
C-C_R 0 1.66200000 27.90900000 -1.57300000 L
H-H_- 0 0.95700000 27.51900000 -2.04000000 L
C-C_R 0 2.07100000 27.57000000 -0.29000000 L
C-C_R 0 1.67100000 26.55200000 0.61300000 L H-H_- 503
C-C_R 0 0.70500000 25.53500000 0.09900000 H
C-C_R 0 -0.58500000 25.45300000 0.54700000 H
C-C_R 0 -1.46300000 24.50100000 0.14500000 H
C-C_R 0 -1.04900000 23.58200000 -0.79100000 H
C-C_R 0 0.21900000 23.61700000 -1.27100000 H
C-C_R 0 1.06600000 24.59000000 -0.84200000 H
C-C_R 0 2.13600000 26.41900000 1.89500000 L
C-C_R 0 1.87200000 25.39300000 2.86700000 L
H-H_- 0 1.33400000 24.64200000 2.75000000 L
C-C_R 0 2.54600000 25.72500000 3.96800000 L
H-H_- 0 2.57200000 25.24900000 4.76800000 L
C-C_R 0 3.22500000 26.96400000 3.68700000 L
C-C_3 0 4.05100000 27.76700000 4.66000000 L
C-C_3 0 3.12400000 28.18000000 5.81000000 L
H-H_- 0 3.62600000 28.66000000 6.47200000 L
H-H_- 0 2.42200000 28.74000000 5.47200000 L
H-H_- 0 2.74000000 27.39500000 6.20900000 L
C-C_3 0 4.60700000 29.03300000 4.00200000 L
H-H_- 0 5.17900000 28.78700000 3.27000000 L
H-H_- 0 3.88200000 29.56900000 3.67500000 L
H-H_- 0 5.11000000 29.53400000 4.64700000 L
C-C_R 0 5.20300000 26.88200000 5.12700000 L
C-C_R 0 5.38300000 26.51900000 6.44900000 L
H-H_- 0 4.77900000 26.83700000 7.08100000 L
C-C_R 0 6.41800000 25.70500000 6.87800000 L
C-C_R 0 7.31100000 25.26300000 5.92400000 L
H-H_- 0 8.02100000 24.71700000 6.17600000 L
C-C_R 0 7.17000000 25.61500000 4.61100000 L
H-H_- 0 7.79100000 25.31400000 3.98500000 L
C-C_R 0 6.11800000 26.41100000 4.20300000 L
H-H_- 0 6.02400000 26.63000000 3.30300000 L
C-C_3 0 6.53900000 25.25500000 8.34100000 L
C-C_3 0 5.54700000 25.95900000 9.25700000 L
H-H_- 0 5.68700000 25.66900000 10.16100000 L
H-H_- 0 5.67800000 26.90800000 9.20000000 L
H-H_- 0 4.65300000 25.74200000 8.98700000 L
C-C_3 0 7.96800000 25.52100000 8.87300000 L
H-H_- 0 8.60700000 25.07200000 8.31400000 L
H-H_- 0 8.14400000 26.46600000 8.86200000 L
H-H_- 0 8.04100000 25.19300000 9.77300000 L
C-C_R 0 6.25400000 23.77100000 8.35300000 L
C-C_R 0 5.03300000 23.10300000 8.42000000 L
H-H_- 0 4.19900000 23.50200000 8.51500000 L
C-C_R 0 5.27500000 21.75900000 8.32400000 L
H-H_- 0 4.63400000 21.08500000 8.34500000 L
C-C_R 0 6.64800000 21.58200000 8.19200000 L
C-C_R 0 7.43200000 20.42100000 8.06700000 L H-H_- 550
C-C_R 0 6.66600000 19.15400000 8.10100000 H
C-C_R 0 5.89800000 18.71500000 7.05700000 H
C-C_R 0 5.07600000 17.63300000 7.12300000 H
C-C_R 0 4.99300000 16.93800000 8.27200000 H
C-C_R 0 5.73100000 17.31600000 9.33700000 H
C-C_R 0 6.55800000 18.39600000 9.23200000 H
C-C_R 0 8.80700000 20.40200000 7.97800000 L
C-C_R 0 9.69400000 19.29900000 7.87100000 L
H-H_- 0 9.45500000 18.40200000 7.81100000 L
C-C_R 0 10.94000000 19.79400000 7.87300000 L

H-H_ 0 11.72800000 19.30300000 7.80500000 L
C-C_R 0 10.83800000 21.21900000 7.99700000 L
C-C_3 0 11.97600000 22.21100000 8.05200000 L
C-C_3 0 11.46700000 23.60800000 8.42100000 L
H-H_ 0 11.00900000 23.57000000 9.26400000 L
H-H_- 0 12.21100000 24.21200000 8.48700000 L
H-H_- 0 10.86300000 23.91900000 7.74100000 L
C-C_3 0 12.96700000 21.74900000 9.14800000 L
H-H_ 0 13.30300000 20.87600000 8.92900000 L
H-H_- 0 13.69900000 22.37000000 9.20000000 L
H-H_- 0 12.51600000 21.71300000 9.99300000 L
C-C_R 0 12.60700000 22.25300000 6.66200000 L
C-C_R 0 13.91600000 21.92000000 6.44400000 L
H-H_- 0 14.47100000 21.70000000 7.16000000 L
C-C_R 0 14.40000000 21.91700000 5.16200000 L
H-H_- 0 15.29700000 21.72100000 5.01900000 L
C-C_R 0 13.59200000 22.19700000 4.07400000 L
H-H_- 0 13.94200000 22.15700000 3.21400000 L
C-C_R 0 12.25100000 22.53800000 4.26400000 L
C-C_R 0 11.82000000 22.57800000 5.57600000 L
H-H_- 0 10.94300000 22.83800000 5.73700000 L
C-C_3 0 11.32200000 22.89700000 3.11800000 L
C-C_3 0 11.79800000 22.33100000 1.76500000 L
H-H_ 0 11.12800000 22.49500000 1.09800000 L
H-H_- 0 12.61800000 22.76000000 1.50900000 L
H-H_- 0 11.94300000 21.38600000 1.84700000 L
C-C_3 0 11.27000000 24.43000000 3.02700000 L
H-H_- 0 10.86500000 24.78500000 3.82300000 L
H-H_- 0 12.16100000 24.77600000 2.94000000 L
H-H_- 0 10.75000000 24.68800000 2.26100000 L
C-C_R 0 9.94100000 22.34000000 3.35000000 L
C-C_R 0 9.47000000 21.28900000 4.14300000 L
H-H_- 0 9.98700000 20.74800000 4.69500000 L
C-C_R 0 8.10900000 21.19300000 3.96500000 L
H-H_- 0 7.54400000 20.58200000 4.37900000 L
C-C_R 0 7.73100000 22.17400000 3.05300000 L
C-C_R 0 6.45900000 22.54100000 2.56800000 L H-H_- 597
C-C_R 0 5.31100000 21.76500000 3.10000000 H
C-C_R 0 4.93100000 20.56400000 2.57100000 H
C-C_R 0 3.87500000 19.85000000 3.05200000 H
C-C_R 0 3.15100000 20.34100000 4.10200000 H
C-C_R 0 3.50000000 21.51800000 4.65000000 H
C-C_R 0 4.55400000 22.19800000 4.15600000 H
C-C_R 0 6.21300000 23.56800000 1.68800000 L
C-C_R 0 4.97300000 24.08300000 1.20600000 L
H-H_- 0 4.12300000 23.77500000 1.42500000 L
C-C_R 0 5.26600000 25.09900000 0.37700000 L
H-H_- 0 4.66100000 25.63700000 -0.07800000 L
C-C_R 0 6.69400000 25.19300000 0.32900000 L
C-C_3 0 7.50200000 26.15000000 -0.53700000 L
C-C_3 0 8.99700000 25.86600000 -0.36900000 L
H-H_- 0 9.18600000 24.97000000 -0.66000000 L
H-H_- 0 9.50100000 26.48800000 -0.89700000 L
H-H_- 0 9.23800000 25.95900000 0.55600000 L
C-C_3 0 7.11100000 25.90700000 -2.00600000 L
H-H_- 0 6.15600000 25.94900000 -2.09600000 L
H-H_- 0 7.51300000 26.58100000 -2.56000000 L
H-H_- 0 7.42100000 25.04100000 -2.28300000 L
C-C_R 0 7.13900000 27.57900000 -0.10100000 L
C-C_R 0 7.75700000 28.18700000 0.99500000 L
H-H_- 0 8.43600000 27.74100000 1.44800000 L
C-C_R 0 7.37900000 29.41700000 1.40300000 L
H-H_- 0 7.82200000 29.81500000 2.11800000 L
C-C_R 0 6.35600000 30.10000000 0.78600000 L
H-H_- 0 6.10200000 30.93800000 1.09800000 L
C-C_R 0 5.70900000 29.54400000 -0.28600000 L
C-C_R 0 6.13000000 28.28900000 -0.71000000 L
H-H_- 0 5.70700000 27.90900000 -1.44500000 L
C-C_3 0 4.54300000 30.19900000 -1.01500000 L
C-C_3 0 4.06100000 31.48100000 -0.30200000 L
H-H_- 0 3.71400000 31.25300000 0.56400000 L
H-H_- 0 4.79600000 32.08800000 -0.20100000 L
H-H_- 0 3.37100000 31.89800000 -0.82200000 L
C-C_3 0 5.00000000 30.57000000 -2.44200000 L
H-H_- 0 4.29100000 31.03900000 -2.89000000 L
H-H_- 0 5.77500000 31.13300000 -2.39200000 L
H-H_- 0 5.21200000 29.77200000 -2.92900000 L
N-N_R 0 3.11700000 28.41900000 -0.01900000 L
N-N_R 0 3.00000000 27.36600000 2.46600000 L
N-N_R 0 7.20800000 22.84900000 8.21700000 L
N-N_R 0 9.56100000 21.58200000 8.04200000 L
N-N_R 0 8.88500000 22.84700000 2.69500000 L
N-N_R 0 7.25100000 24.30600000 1.11000000 L
F-F_- 0 -1.01000000 26.35200000 1.45200000 H
F-F_- 0 -2.71300000 24.46400000 0.63000000 H
F-F_- 0 -1.90000000 22.62400000 -1.18300000 H
F-F_- 0 0.61600000 22.70700000 -2.17600000 H

F-F_- 0 2.31900000 24.57700000 -1.31500000 H
F-F_- 0 5.91100000 19.40700000 5.89300000 H
F-F_- 0 4.31900000 17.26600000 6.07600000 H
F-F_- 0 4.19700000 15.87200000 8.38300000 H
F-F_- 0 5.64600000 16.63400000 10.49200000 H
F-F_- 0 7.27600000 18.74500000 10.31300000 H
F-F_- 0 5.60000000 20.06200000 1.52700000 H
F-F_- 0 3.53400000 18.67100000 2.49600000 H
F-F_- 0 2.11100000 19.64500000 4.57900000 H
F-F_- 0 2.79400000 22.00100000 5.69400000 H
F-F_- 0 4.87500000 23.35700000 4.74600000 H
H-H_- 0 8.06300000 22.88500000 8.16000000 L
H-H_- 0 3.51400000 28.41500000 0.75200000 L
H-H_- 0 8.81100000 23.52100000 2.16000000 L
C-C_R 0 1.00100000 21.83300000 15.04000000 L
C-C_R 0 1.93500000 21.53000000 16.01100000 L
H-H_- 0 2.00500000 21.94200000 16.84300000 L
C-C_R 0 2.74700000 20.51700000 15.54600000 L
H-H_- 0 3.45200000 20.12700000 16.01300000 L
C-C_R 0 2.33800000 20.17900000 14.26300000 L
C-C_R 0 2.73700000 19.16000000 13.35900000 L H-H_- 668
C-C_R 0 3.70400000 18.14300000 13.87400000 H
C-C_R 0 4.99400000 18.06100000 13.42500000 H
C-C_R 0 5.87200000 17.10900000 13.82700000 H
C-C_R 0 5.45800000 16.19000000 14.76400000 H
C-C_R 0 4.19000000 16.22500000 15.24400000 H
C-C_R 0 3.34300000 17.19800000 14.81500000 H
C-C_R 0 2.27300000 19.02700000 12.07700000 L
C-C_R 0 2.53700000 18.00100000 11.10600000 L
H-H_- 0 3.07400000 17.25000000 11.22300000 L
C-C_R 0 1.86300000 18.33400000 10.00500000 L
H-H_- 0 1.83700000 17.85700000 9.20500000 L
C-C_R 0 1.18400000 19.57200000 10.28600000 L
C-C_3 0 0.35800000 20.37500000 9.31200000 L
C-C_3 0 1.28500000 20.78800000 8.16200000 L
H-H_- 0 0.78300000 21.26800000 7.50100000 L
H-H_- 0 1.98700000 21.34800000 8.50100000 L
H-H_- 0 1.66900000 20.00300000 7.76300000 L
C-C_3 0 -0.19800000 21.64100000 9.97100000 L
H-H_- 0 -0.77000000 21.39500000 10.70300000 L
H-H_- 0 0.52700000 22.17700000 10.29800000 L
H-H_- 0 -0.70100000 22.14200000 9.32500000 L
C-C_R 0 -0.79400000 19.49000000 8.84600000 L
C-C_R 0 -0.97400000 19.12700000 7.52400000 L
H-H_- 0 -0.37000000 19.44500000 6.89100000 L
C-C_R 0 -2.00900000 18.31300000 7.09500000 L
C-C_R 0 -2.90200000 17.87100000 8.04800000 L
H-H_- 0 -3.61200000 17.32500000 7.79700000 L
C-C_R 0 -2.76100000 18.22300000 9.36200000 L
H-H_- 0 -3.38200000 17.92300000 9.98800000 L
C-C_R 0 -1.70900000 19.01900000 9.77000000 L
H-H_- 0 -1.61500000 19.23800000 10.67000000 L
C-C_3 0 -2.13000000 17.86300000 5.63200000 L
C-C_3 0 -1.13800000 18.56700000 4.71600000 L
H-H_- 0 -1.27800000 18.27700000 3.81200000 L
H-H_- 0 -1.26900000 19.51600000 4.77300000 L
H-H_- 0 -0.24400000 18.35000000 4.98500000 L
C-C_3 0 -3.55900000 18.12900000 5.10000000 L
H-H_- 0 -4.19800000 17.68000000 5.65900000 L
H-H_- 0 -3.73500000 19.07400000 5.11100000 L
H-H_- 0 -3.63200000 17.80100000 4.20000000 L
C-C_R 0 -1.84500000 16.37900000 5.62000000 L
C-C_R 0 -0.62400000 15.71100000 5.55300000 L
H-H_- 0 0.21100000 16.11000000 5.45800000 L
C-C_R 0 -0.86600000 14.36700000 5.64800000 L
H-H_- 0 -0.22500000 13.69300000 5.62800000 L
C-C_R 0 -2.23900000 14.19000000 5.78100000 L
C-C_R 0 -3.02300000 13.02900000 5.90600000 L H-H_- 715
C-C_R 0 -2.25700000 11.76200000 5.87200000 H
C-C_R 0 -1.48900000 11.32300000 6.91600000 H
C-C_R 0 -0.66700000 10.24100000 6.84900000 H
C-C_R 0 -0.58400000 9.54600000 5.70100000 H
C-C_R 0 -1.32200000 9.92400000 4.63600000 H
C-C_R 0 -2.14900000 11.00400000 4.74100000 H
C-C_R 0 -4.39800000 13.01000000 5.99500000 L
C-C_R 0 -5.28500000 11.90700000 6.10200000 L
H-H_- 0 -5.04600000 11.01000000 6.16200000 L
C-C_R 0 -6.53100000 12.40200000 6.10000000 L
H-H_- 0 -7.31900000 11.91100000 6.16800000 L
C-C_R 0 -6.42900000 13.82700000 5.97600000 L
C-C_3 0 -7.56700000 14.81900000 5.92100000 L
C-C_3 0 -7.05800000 16.21600000 5.55200000 L
H-H_- 0 -6.60000000 16.17800000 4.70900000 L
H-H_- 0 -7.80200000 16.82000000 5.48600000 L
H-H_- 0 -6.45400000 16.52700000 6.23200000 L
C-C_3 0 -8.55900000 14.35700000 4.82500000 L
H-H_- 0 -8.89400000 13.48400000 5.04400000 L

H-H_- 0 -9.29000000 14.97800000 4.77300000 L
H-H_- 0 -8.10700000 14.32100000 3.97900000 L
C-C_R 0 -8.19800000 14.86100000 7.31100000 L
C-C_R 0 -9.50700000 14.52800000 7.52900000 L
H-H_- 0 -10.06200000 14.30800000 6.81300000 L
C-C_R 0 -9.99100000 14.52500000 8.81100000 L
H-H_- 0 -10.88800000 14.32900000 8.95400000 L
C-C_R 0 -9.18300000 14.80500000 9.89800000 L
H-H_- 0 -9.53300000 14.76500000 10.75900000 L
C-C_R 0 -7.84300000 15.14600000 9.70900000 L
C-C_R 0 -7.41100000 15.18600000 8.39700000 L
H-H_- 0 -6.53400000 15.44600000 8.23600000 L
C-C_3 0 -6.91300000 15.50500000 10.85400000 L
C-C_3 0 -7.38900000 14.93900000 12.20800000 L
H-H_- 0 -6.72000000 15.10300000 12.87500000 L
H-H_- 0 -8.21100000 15.36800000 12.46400000 L
H-H_- 0 -7.53400000 13.99400000 12.12600000 L
C-C_3 0 -6.86100000 17.03800000 10.94600000 L
H-H_- 0 -6.45600000 17.39300000 10.15000000 L
H-H_- 0 -7.75200000 17.38400000 11.03300000 L
H-H_- 0 -6.34100000 17.29600000 11.71200000 L
C-C_R 0 -5.53200000 14.94800000 10.62300000 L
C-C_R 0 -5.06100000 13.89700000 9.82900000 L
H-H_- 0 -5.57800000 13.35600000 9.27800000 L
C-C_R 0 -3.70000000 13.80100000 10.00800000 L
H-H_- 0 -3.13500000 13.19000000 9.59400000 L
C-C_R 0 -3.32200000 14.78200000 10.91900000 L
C-C_R 0 -2.05000000 15.14900000 11.40500000 L H-H_- 762
C-C_R 0 -0.90200000 14.37300000 10.87200000 H
C-C_R 0 -0.52200000 13.17200000 11.40100000 H
C-C_R 0 0.53400000 12.45800000 10.92100000 H
C-C_R 0 1.25800000 12.94900000 9.87000000 H
C-C_R 0 0.90900000 14.12600000 9.32300000 H
C-C_R 0 -0.14500000 14.80600000 9.81600000 H
C-C_R 0 -1.80400000 16.17700000 12.28500000 L
C-C_R 0 -0.56400000 16.69100000 12.76700000 L
H-H_- 0 0.28600000 16.38400000 12.54800000 L
C-C_R 0 -0.85700000 17.70700000 13.59600000 L
H-H_- 0 -0.25200000 18.24500000 14.05100000 L
C-C_R 0 -2.28500000 17.80100000 13.64400000 L
C-C_3 0 -3.09300000 18.75800000 14.50900000 L
C-C_3 0 -4.58800000 18.47400000 14.34200000 L
H-H_- 0 -4.77700000 17.57800000 14.63200000 L
H-H_- 0 -5.09200000 19.09600000 14.87000000 L
H-H_- 0 -4.82900000 18.56700000 13.41700000 L
C-C_3 0 -2.70200000 18.51500000 15.97900000 L
H-H_- 0 -1.74700000 18.55700000 16.06900000 L
H-H_- 0 -3.10400000 19.19000000 16.53300000 L
H-H_- 0 -3.01200000 17.64900000 16.25600000 L
C-C_R 0 -2.73000000 20.18700000 14.07300000 L
C-C_R 0 -3.34800000 20.79500000 12.97800000 L
H-H_- 0 -4.02700000 20.34900000 12.52500000 L
C-C_R 0 -2.97000000 22.02500000 12.57000000 L
H-H_- 0 -3.41300000 22.42300000 11.85400000 L
C-C_R 0 -1.94700000 22.70800000 13.18600000 L
H-H_- 0 -1.69300000 23.54600000 12.87500000 L
C-C_R 0 -1.30000000 22.15200000 14.25800000 L
C-C_R 0 -1.72100000 20.89700000 14.68200000 L
H-H_- 0 -1.29800000 20.51700000 15.41800000 L
C-C_3 0 -0.13400000 22.80700000 14.98800000 L
C-C_3 0 0.34800000 24.08900000 14.27500000 L
H-H_- 0 0.69500000 23.86100000 13.40800000 L
H-H_- 0 -0.38700000 24.69700000 14.17400000 L
H-H_- 0 1.03800000 24.50600000 14.79400000 L
C-C_3 0 -0.59100000 23.17800000 16.41400000 L
H-H_- 0 0.11800000 23.64700000 16.86200000 L
H-H_- 0 -1.36600000 23.74100000 16.36500000 L
H-H_- 0 -0.80300000 22.38000000 16.90100000 L
N-N_R 0 1.29200000 21.02700000 13.99100000 L
N-N_R 0 1.40900000 19.97500000 11.50700000 L
N-N_R 0 -2.79900000 15.45700000 5.75600000 L
N-N_R 0 -5.15200000 14.19000000 5.93100000 L
N-N_R 0 -4.47600000 15.45500000 11.27800000 L
N-N_R 0 -2.84200000 16.91400000 12.86300000 L
F-F_- 0 5.41900000 18.96000000 12.52000000 H
F-F_- 0 7.12200000 17.07200000 13.34300000 H
F-F_- 0 6.30900000 15.23200000 15.15500000 H
F-F_- 0 3.79300000 15.31500000 16.14900000 H
F-F_- 0 2.09000000 17.18500000 15.28700000 H
F-F_- 0 -1.50200000 12.01500000 8.08000000 H
F-F_- 0 0.09000000 9.87400000 7.89700000 H
F-F_- 0 0.21200000 8.48000000 5.58900000 H
F-F_- 0 -1.23700000 9.24200000 3.48100000 H
F-F_- 0 -2.86700000 11.35300000 3.66000000 H
F-F_- 0 -1.19100000 12.67000000 12.44600000 H
F-F_- 0 0.87500000 11.27900000 11.47700000 H
F-F_- 0 2.29800000 12.25300000 9.39400000 H

F-F_- 0 1.61500000 14.60900000 8.27900000 H
F-F_- 0 -0.46600000 15.96500000 9.22700000 H
H-H_- 0 -3.65400000 15.49400000 5.81300000 L
H-H_- 0 0.89500000 21.02300000 13.22100000 L
H-H_- 0 -4.40200000 16.12900000 11.81300000 L
C-C_R 0 3.40800000 14.44100000 -1.06800000 L
C-C_R 0 2.47400000 14.13800000 -2.03800000 L
H-H_- 0 2.40400000 14.55000000 -2.87000000 L
C-C_R 0 1.66200000 13.12500000 -1.57300000 L
H-H_- 0 0.95700000 12.73500000 -2.04000000 L
C-C_R 0 2.07100000 12.78700000 -0.29000000 L
C-C_R 0 1.67100000 11.76800000 0.61300000 L H-H_- 833
C-C_R 0 0.70500000 10.75100000 0.09900000 H
C-C_R 0 -0.58500000 10.67000000 0.54700000 H
C-C_R 0 -1.46300000 9.71700000 0.14500000 H
C-C_R 0 -1.04900000 8.79800000 -0.79100000 H
C-C_R 0 0.21900000 8.83300000 -1.27100000 H
C-C_R 0 1.06600000 9.80600000 -0.84200000 H
C-C_R 0 2.13600000 11.63500000 1.89500000 L
C-C_R 0 1.87200000 10.60900000 2.86700000 L
H-H_- 0 1.33400000 9.85800000 2.75000000 L
C-C_R 0 2.54600000 10.94200000 3.96800000 L
H-H_- 0 2.57200000 10.46600000 4.76800000 L
C-C_R 0 3.22500000 12.18000000 3.68700000 L
C-C_3 0 4.05100000 12.98300000 4.66000000 L
C-C_3 0 3.12400000 13.39600000 5.81000000 L
H-H_- 0 3.62600000 13.87600000 6.47200000 L
H-H_- 0 2.42200000 13.95600000 5.47200000 L
H-H_- 0 2.74000000 12.61100000 6.20900000 L
C-C_3 0 4.60700000 14.24900000 4.00200000 L
H-H_- 0 5.17900000 14.00300000 3.27000000 L
H-H_- 0 3.88200000 14.78500000 3.67500000 L
H-H_- 0 5.11000000 14.75000000 4.64700000 L
C-C_R 0 5.20300000 12.09800000 5.12700000 L
C-C_R 0 5.38300000 11.73500000 6.44900000 L
H-H_- 0 4.77900000 12.05300000 7.08100000 L
C-C_R 0 6.41800000 10.92100000 6.87800000 L
C-C_R 0 7.31100000 10.47900000 5.92400000 L
H-H_- 0 8.02100000 9.93300000 6.17600000 L
C-C_R 0 7.17000000 10.83100000 4.61100000 L
H-H_- 0 7.79100000 10.53100000 3.98500000 L
C-C_R 0 6.11800000 11.62800000 4.20300000 L
H-H_- 0 6.02400000 11.84600000 3.30300000 L
C-C_3 0 6.53900000 10.47100000 8.34100000 L
C-C_3 0 5.54700000 11.17500000 9.25700000 L
H-H_- 0 5.68700000 10.88500000 10.16100000 L
H-H_- 0 5.67800000 12.12400000 9.20000000 L
H-H_- 0 4.65300000 10.95800000 8.98700000 L
C-C_3 0 7.96800000 10.73800000 8.87300000 L
H-H_- 0 8.60700000 10.28800000 8.31400000 L
H-H_- 0 8.14400000 11.68200000 8.86200000 L
H-H_- 0 8.04100000 10.40900000 9.77300000 L
C-C_R 0 6.25400000 8.98700000 8.35300000 L
C-C_R 0 5.03300000 8.31900000 8.42000000 L
H-H_- 0 4.19900000 8.71800000 8.51500000 L
C-C_R 0 5.27500000 6.97500000 8.32400000 L
H-H_- 0 4.63400000 6.30100000 8.34500000 L
C-C_R 0 6.64800000 6.79800000 8.19200000 L
C-C_R 0 7.43200000 5.63700000 8.06700000 L H-H_- 880
C-C_R 0 6.66600000 4.37000000 8.10100000 H
C-C_R 0 5.98900000 3.93100000 7.05700000 H
C-C_R 0 5.07600000 2.84900000 7.12300000 H
C-C_R 0 4.99300000 2.15400000 8.27200000 H
C-C_R 0 5.73100000 2.53200000 9.33700000 H
C-C_R 0 6.55800000 3.61200000 9.23200000 H
C-C_R 0 8.80700000 5.61800000 7.97800000 L
C-C_R 0 9.69400000 4.51500000 7.87100000 L
H-H_- 0 9.45500000 3.61800000 7.81100000 L
C-C_R 0 10.94000000 5.01000000 7.87300000 L
H-H_- 0 11.72800000 4.51900000 7.80500000 L
C-C_R 0 10.83800000 6.43500000 7.99700000 L
C-C_3 0 11.97600000 7.42700000 8.05200000 L
C-C_3 0 11.46700000 8.82500000 8.42100000 L
H-H_- 0 11.00900000 8.78600000 9.26400000 L
H-H_- 0 12.21100000 9.42800000 8.48700000 L
H-H_- 0 10.86300000 9.13500000 7.74100000 L
C-C_3 0 12.96700000 6.96500000 9.14800000 L
H-H_- 0 13.30300000 6.09200000 8.92900000 L
H-H_- 0 13.69900000 7.58600000 9.20000000 L
H-H_- 0 12.51600000 6.92900000 9.99300000 L
C-C_R 0 12.60700000 7.46900000 6.66200000 L
C-C_R 0 13.91600000 7.13600000 6.44400000 L
H-H_- 0 14.47100000 6.91600000 7.16000000 L
C-C_R 0 14.40000000 7.13300000 5.16200000 L
H-H_- 0 15.29700000 6.93700000 5.01900000 L
C-C_R 0 13.59200000 7.41300000 4.07400000 L
H-H_- 0 13.94200000 7.37300000 3.21400000 L

C-C_R 0 12.25100000 7.75400000 4.26400000 L
C-C_R 0 11.82000000 7.79400000 5.57600000 L
H-H_- 0 10.94300000 8.05400000 5.73700000 L
C-C_3 0 11.32200000 8.11300000 3.11800000 L
C-C_3 0 11.79800000 7.54700000 1.76500000 L
H-H_- 0 11.12800000 7.71100000 1.09800000 L
H-H_- 0 12.61800000 7.97600000 1.50900000 L
H-H_- 0 11.94300000 6.60200000 1.84700000 L
C-C_3 0 11.27000000 9.64600000 3.02700000 L
H-H_- 0 10.86500000 10.00100000 3.82300000 L
H-H_- 0 12.16100000 9.99200000 2.94000000 L
H-H_- 0 10.75000000 9.90400000 2.26100000 L
C-C_R 0 9.94100000 7.55600000 3.35000000 L
C-C_R 0 9.47000000 6.50500000 4.14300000 L
H-H_- 0 9.98700000 5.96400000 4.69500000 L
C-C_R 0 8.10900000 6.40900000 3.96500000 L
H-H_- 0 7.54400000 5.79800000 4.37900000 L
C-C_R 0 7.73100000 7.39000000 3.05300000 L
C-C_R 0 6.45900000 7.75700000 2.56800000 L H-H_- 927
C-C_R 0 5.31100000 6.98100000 3.10000000 H
C-C_R 0 4.93100000 5.78100000 2.57100000 H
C-C_R 0 3.87500000 5.06600000 3.05200000 H
C-C_R 0 3.15100000 5.55700000 4.10200000 H
C-C_R 0 3.50000000 6.73400000 4.65000000 H
C-C_R 0 4.55400000 7.41400000 4.15600000 H
C-C_R 0 6.21300000 8.78500000 1.68800000 L
C-C_R 0 4.97300000 9.29900000 1.20600000 L
H-H_- 0 4.12300000 8.99200000 1.42500000 L
C-C_R 0 5.26600000 10.31500000 0.37700000 L
H-H_- 0 4.66100000 10.85300000 -0.07800000 L
C-C_R 0 6.69400000 10.40900000 0.32900000 L
C-C_3 0 7.50200000 11.36600000 -0.53700000 L
C-C_3 0 8.99700000 11.08200000 -0.36900000 L
H-H_- 0 9.18600000 10.18600000 -0.66000000 L
H-H_- 0 9.50100000 11.70400000 -0.89700000 L
H-H_- 0 9.23800000 11.17500000 0.55600000 L
C-C_3 0 7.11100000 11.12300000 -2.00600000 L
H-H_- 0 6.15600000 11.16500000 -2.09600000 L
H-H_- 0 7.51300000 11.79800000 -2.56000000 L
H-H_- 0 7.42100000 10.25700000 -2.28300000 L
C-C_R 0 7.13900000 12.79500000 -0.10100000 L
C-C_R 0 7.75700000 13.40300000 0.99500000 L
H-H_- 0 8.43600000 12.95700000 1.44800000 L
C-C_R 0 7.37900000 14.63300000 1.40300000 L
H-H_- 0 7.82200000 15.03100000 2.11800000 L
C-C_R 0 6.35600000 15.31600000 0.78600000 L
H-H_- 0 6.10200000 16.15400000 1.09800000 L
C-C_R 0 5.70900000 14.76000000 -0.28600000 L
C-C_R 0 6.13000000 13.50500000 -0.71000000 L
H-H_- 0 5.70700000 13.12500000 -1.44500000 L
C-C_3 0 4.54300000 15.41500000 -1.01500000 L
C-C_3 0 4.06100000 16.69700000 -0.30200000 L
H-H_- 0 3.71400000 16.46900000 0.56400000 L
H-H_- 0 4.79600000 17.30500000 -0.20100000 L
H-H_- 0 3.37100000 17.11400000 -0.82200000 L
C-C_3 0 5.00000000 15.78600000 -2.44200000 L
H-H_- 0 4.29100000 16.25500000 -2.89000000 L
H-H_- 0 5.77500000 16.35000000 -2.39200000 L
H-H_- 0 5.21200000 14.98800000 -2.92900000 L
N-N_R 0 3.11700000 13.63500000 -0.01900000 L
N-N_R 0 3.00000000 12.58300000 2.46600000 L
N-N_R 0 7.20800000 8.06500000 8.21700000 L
N-N_R 0 9.56100000 6.79800000 8.04200000 L
N-N_R 0 8.88500000 8.06300000 2.69500000 L
N-N_R 0 7.25100000 9.52200000 1.11000000 L
F-F_- 0 -0.01000000 11.56800000 1.45200000 H
F-F_- 0 -2.71300000 9.68000000 0.63000000 H
F-F_- 0 -1.90000000 7.84000000 -1.18300000 H
F-F_- 0 0.61600000 7.92300000 -2.17600000 H
F-F_- 0 2.31900000 9.79300000 -1.31500000 H
F-F_- 0 5.91100000 4.62300000 5.89300000 H
F-F_- 0 4.31900000 2.48200000 6.07600000 H
F-F_- 0 4.19700000 1.08800000 8.38300000 H
F-F_- 0 5.64600000 1.85000000 10.49200000 H
F-F_- 0 7.27600000 3.96100000 10.31300000 H
F-F_- 0 5.60000000 5.27800000 1.52700000 H
F-F_- 0 3.53400000 3.88700000 2.49600000 H
F-F_- 0 2.11100000 4.86100000 4.57900000 H
F-F_- 0 2.79400000 7.21700000 5.69400000 H
F-F_- 0 4.87500000 8.57300000 4.74600000 H
H-H_- 0 8.06300000 8.10200000 8.16000000 L
H-H_- 0 3.51400000 13.63100000 0.75200000 L
H-H_- 0 8.81100000 8.73700000 2.16000000 L

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QM/MM ONIOM optimized geometry (PM6/UFF level) of M-II cluster containing six molecules (total 990 atoms).

C	-2.487017000	-13.234303000	4.898542000
C	-1.314083000	-13.216515000	4.265811000
H	-0.397648000	-13.691153000	4.589135000
C	-1.441700000	-12.474753000	3.172091000
H	-0.648461000	-12.253842000	2.469552000
C	-2.750958000	-12.015522000	3.134507000
C	-3.275245000	-11.078937000	2.204560000
C	-2.323787000	-10.390716000	1.282675000
C	-2.393766000	-10.560177000	-0.109044000
C	-1.538361000	-9.877148000	-0.991579000
C	-0.564139000	-9.011057000	-0.478219000
C	-0.447789000	-8.847967000	0.909100000
C	-1.328507000	-9.526576000	1.767639000
C	-4.591769000	-10.752956000	2.145516000
C	-5.167834000	-9.732285000	1.401888000
H	-4.667966000	-9.031077000	0.746244000
C	-6.466970000	-9.730338000	1.677717000
H	-7.191916000	-9.035799000	1.275702000
C	-6.724180000	-10.758012000	2.576725000
C	-8.080727000	-11.082348000	3.189091000
C	-9.047333000	-11.423073000	2.027952000
H	-10.045222000	-11.721037000	2.416680000
H	-8.651322000	-12.272620000	1.429596000
H	-9.171386000	-10.561026000	1.337895000
C	-7.992822000	-12.340583000	4.089811000
H	-7.242499000	-12.219407000	4.899540000
H	-7.698291000	-13.232005000	3.494183000
H	-8.977784000	-12.546725000	4.561834000
C	-8.527212000	-9.880224000	4.052039000
C	-9.679126000	-9.182037000	3.817056000
H	-10.322074000	-9.489567000	3.015379000
C	-10.011622000	-8.080578000	4.558076000
C	-9.155686000	-7.693737000	5.546115000
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C	-8.046769000	-8.402396000	5.817524000
H	-7.393846000	-8.094089000	6.621904000
C	-7.727512000	-9.474765000	5.075781000
H	-6.802853000	-9.993274000	5.298083000
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C	-12.296659000	-7.940765000	3.336367000
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H 2.253094000 2.222132000 -3.500822000
H 1.227508000 2.086742000 -2.047438000
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H 0.364635000 1.480494000 -5.023755000
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N 1.488747000 -1.502510000 -1.646446000
N 3.493774000 -3.063621000 -0.395091000
N 8.809881000 -9.405661000 -3.094043000
N 9.234723000 -11.369400000 -5.131271000
N 4.828959000 -7.908196000 -6.344981000
N 2.860318000 -6.086036000 -5.372293000
F 0.634195000 -4.065376000 2.601446000
F -1.306074000 -5.745427000 3.457952000
F -3.028138000 -6.875087000 1.648947000
F -2.799626000 -6.273836000 -0.998229000
F -0.870383000 -4.603300000 -1.848048000
F 5.217376000 -11.866847000 -2.469496000
F 3.998909000 -13.775444000 -1.006991000
F 5.461438000 -15.820953000 0.073063000
F 8.164319000 -15.918218000 -0.344496000
F 9.376849000 -14.006268000 -1.813138000
F 1.801849000 -10.220307000 -3.809573000
F 1.496332000 -11.614920000 -1.515097000
F 3.021258000 -11.005249000 0.673328000
F 4.863187000 -8.986488000 0.519991000
F 5.149987000 -7.589171000 -1.767285000
H 9.293848000 -9.334579000 -4.010151000
H 2.450810000 -1.724091000 -1.974971000
H 4.770352000 -6.889854000 -6.553290000