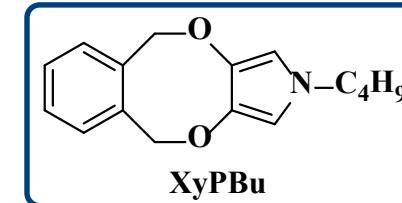


Figure S2. TGA Analysis of XyPBu

DTA
uV

TGA
mg



Temp
C

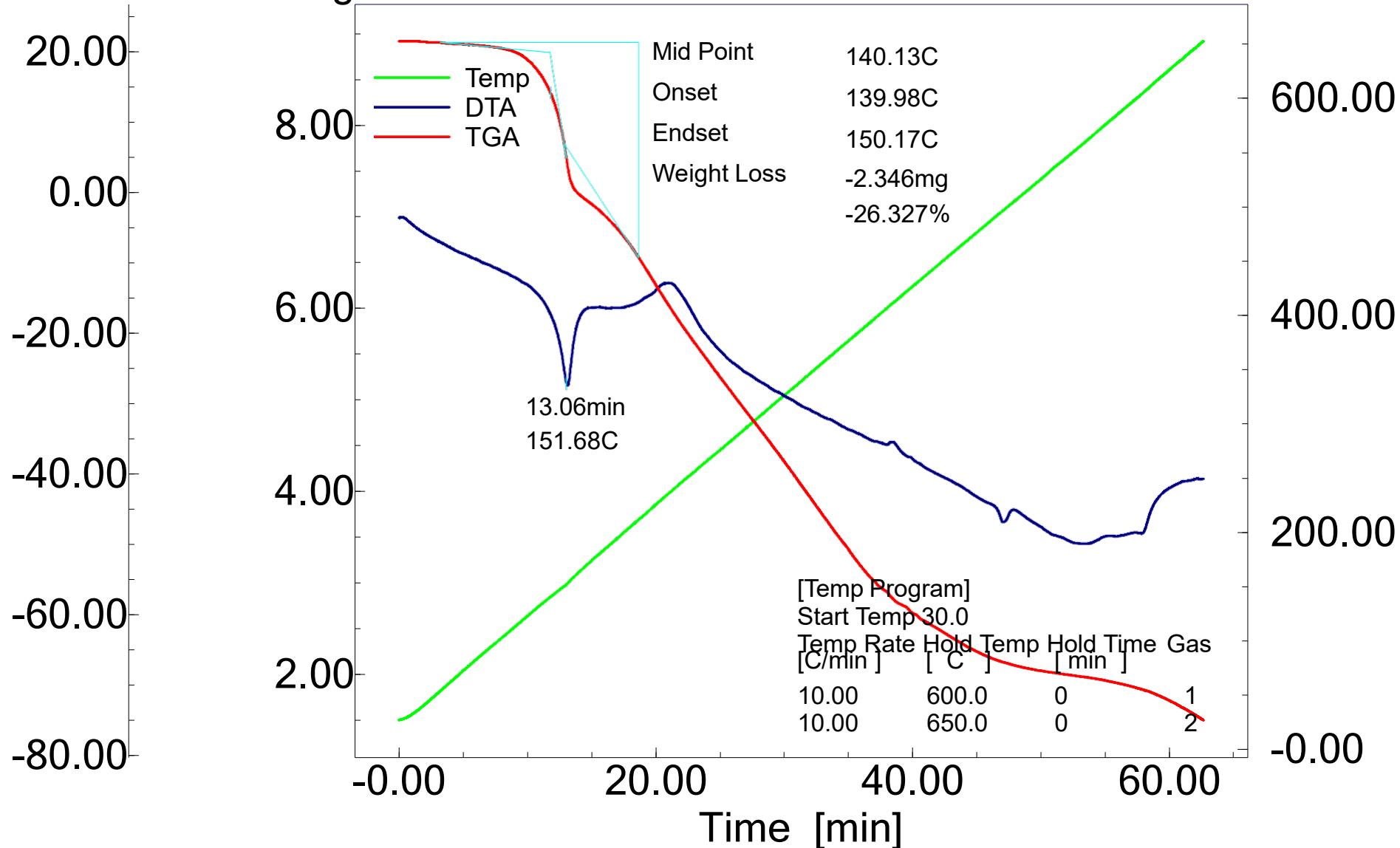


Figure S3. TGA Analysis of XyS

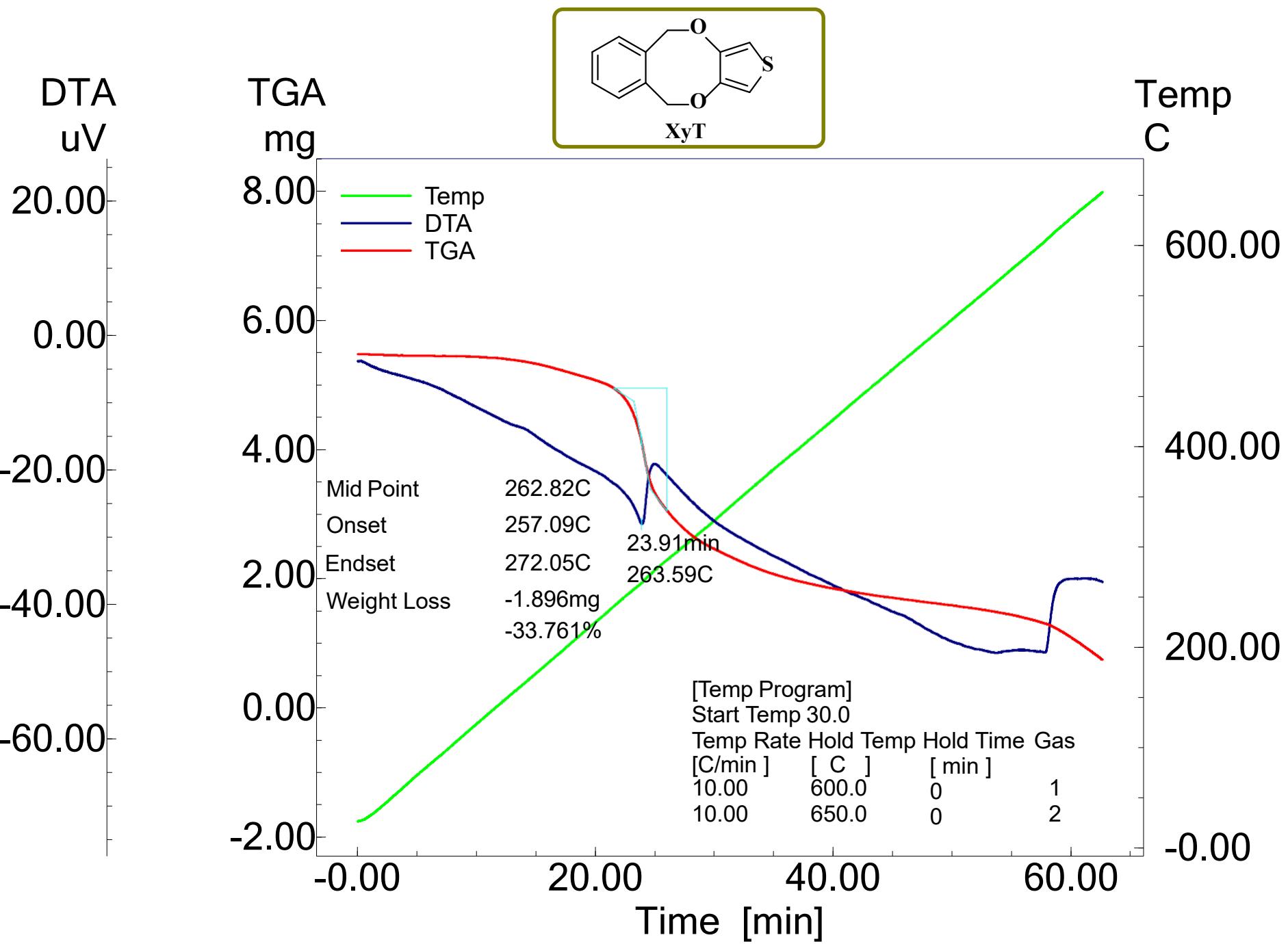


Figure S4. FT-IR spectrum of dimethyl iminodiacetate (1)

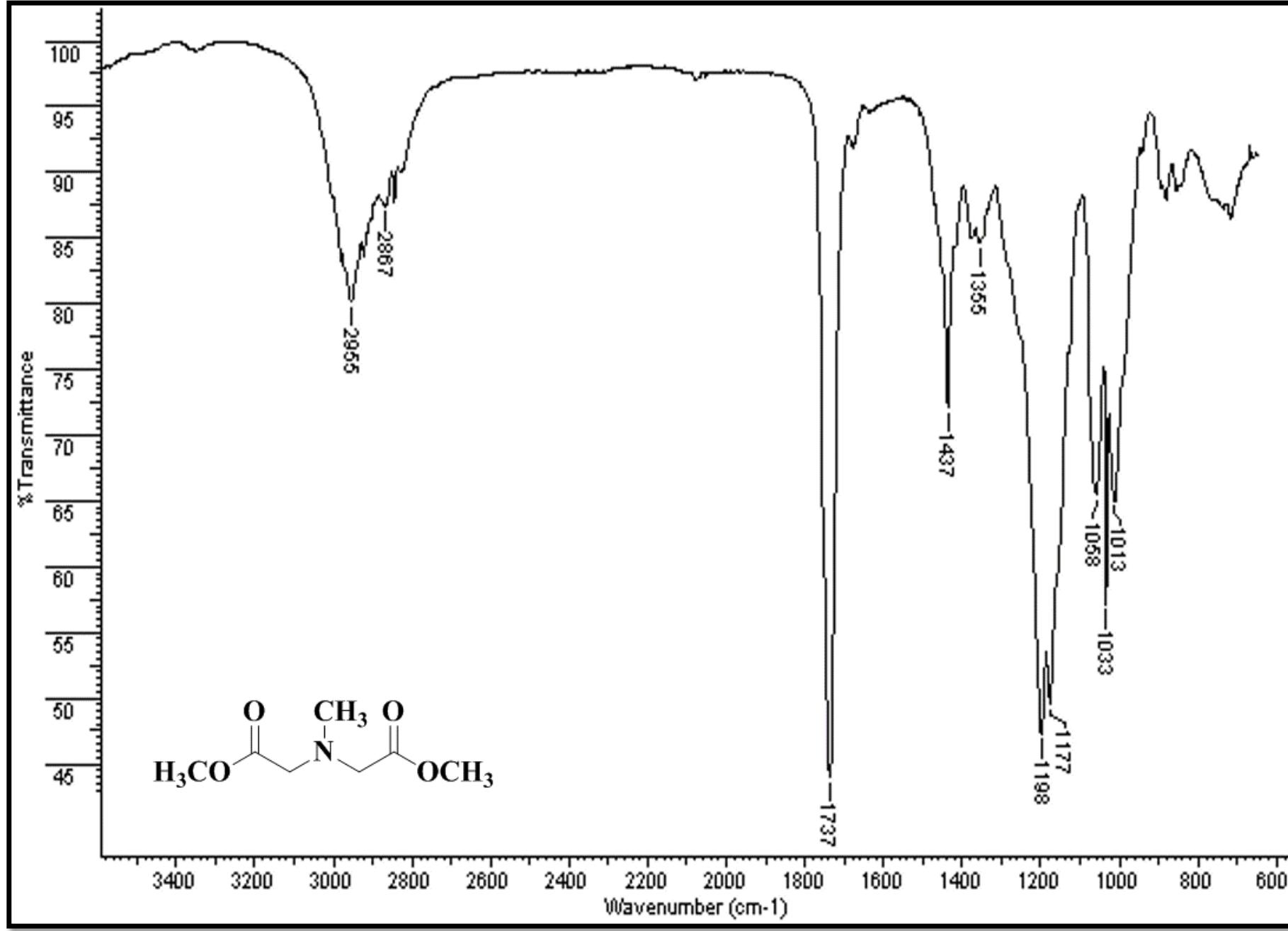


Figure S5. GC-MS spectrum of dimethyl iminodiacetate (1)

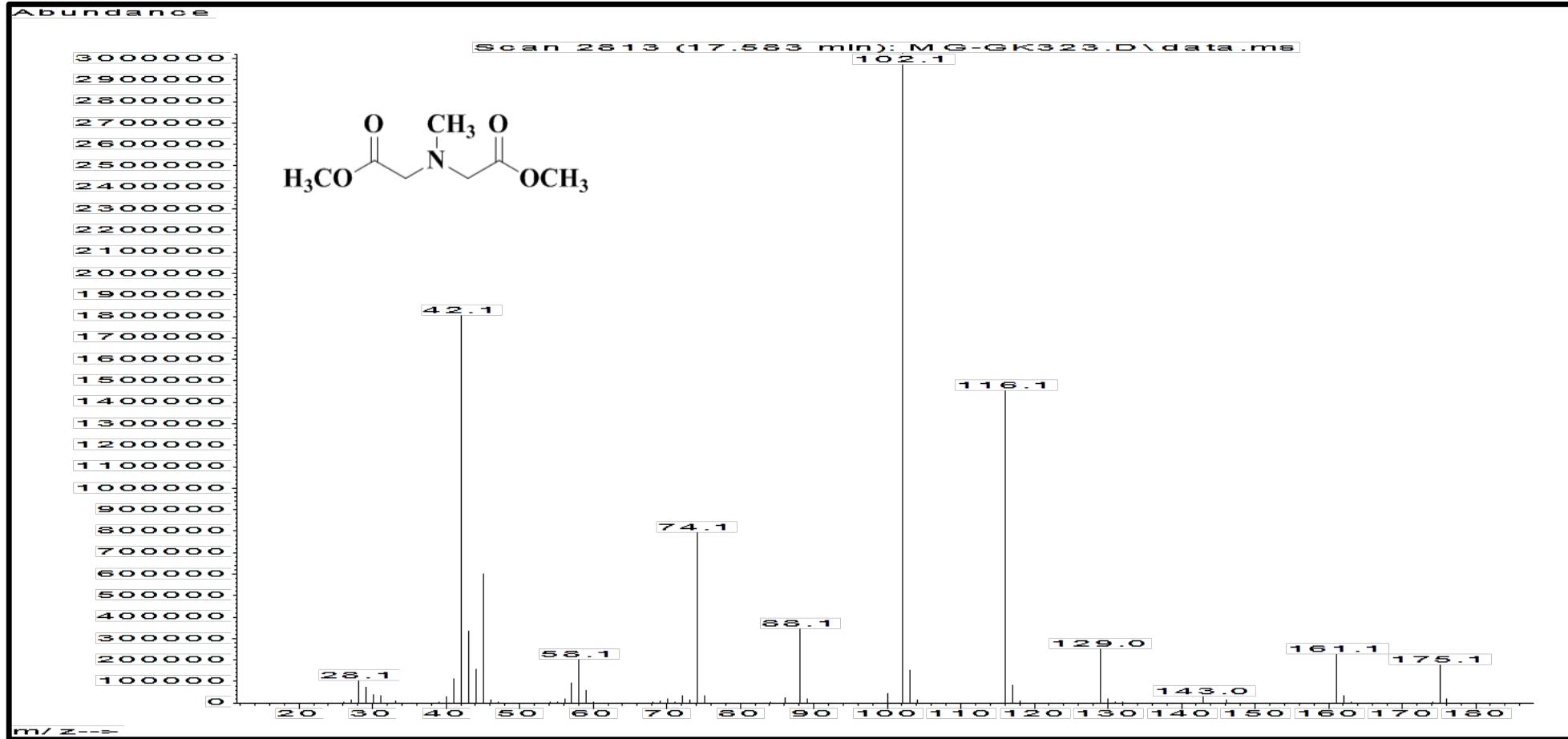


Figure S6. FT-IR spectrum of diethyl 3,4-dihydroxy-1-methyl-1H-pyrrole-2,5-dicarboxylate (2)

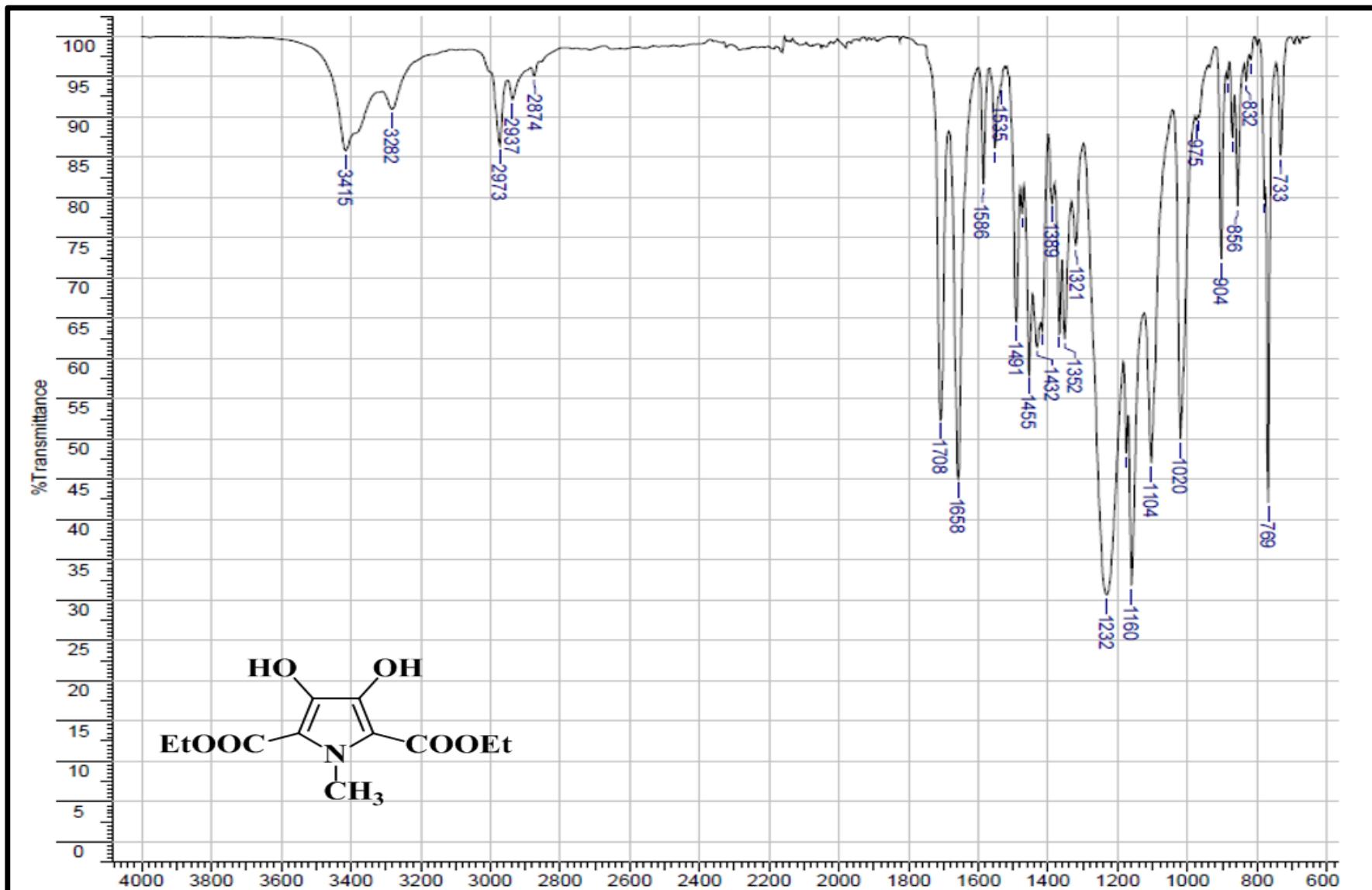


Figure S7. GC-MS spectrum of diethyl 3,4-dihydroxy-1-methyl-1H-pyrrole-2,5-dicarboxylate (2)

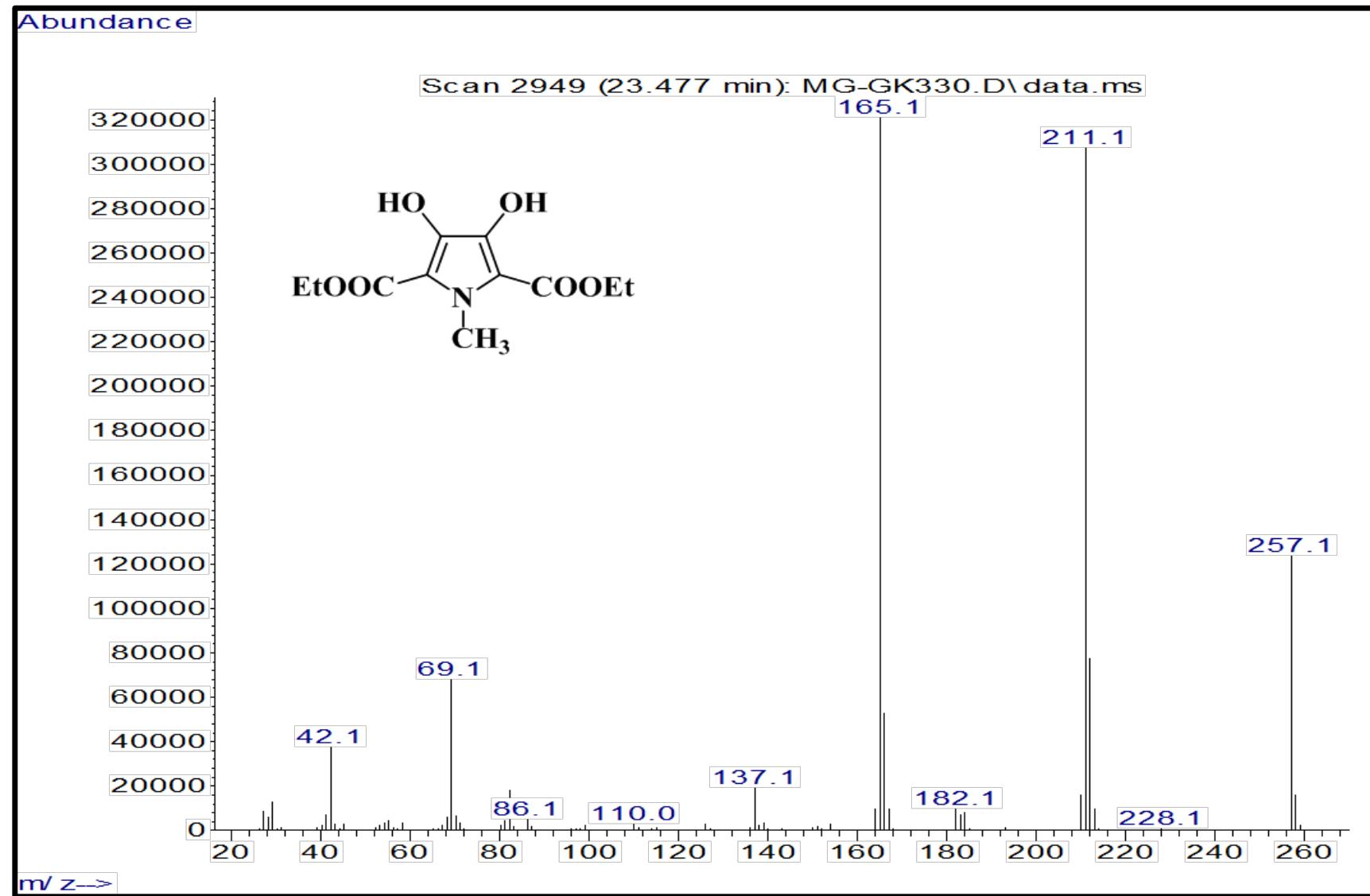


Figure S8. $^1\text{H-NMR}$ spectrum of diethyl 3,4-dihydroxy-1-methyl-1*H*-pyrrole-2,5-dicarboxylate (2)

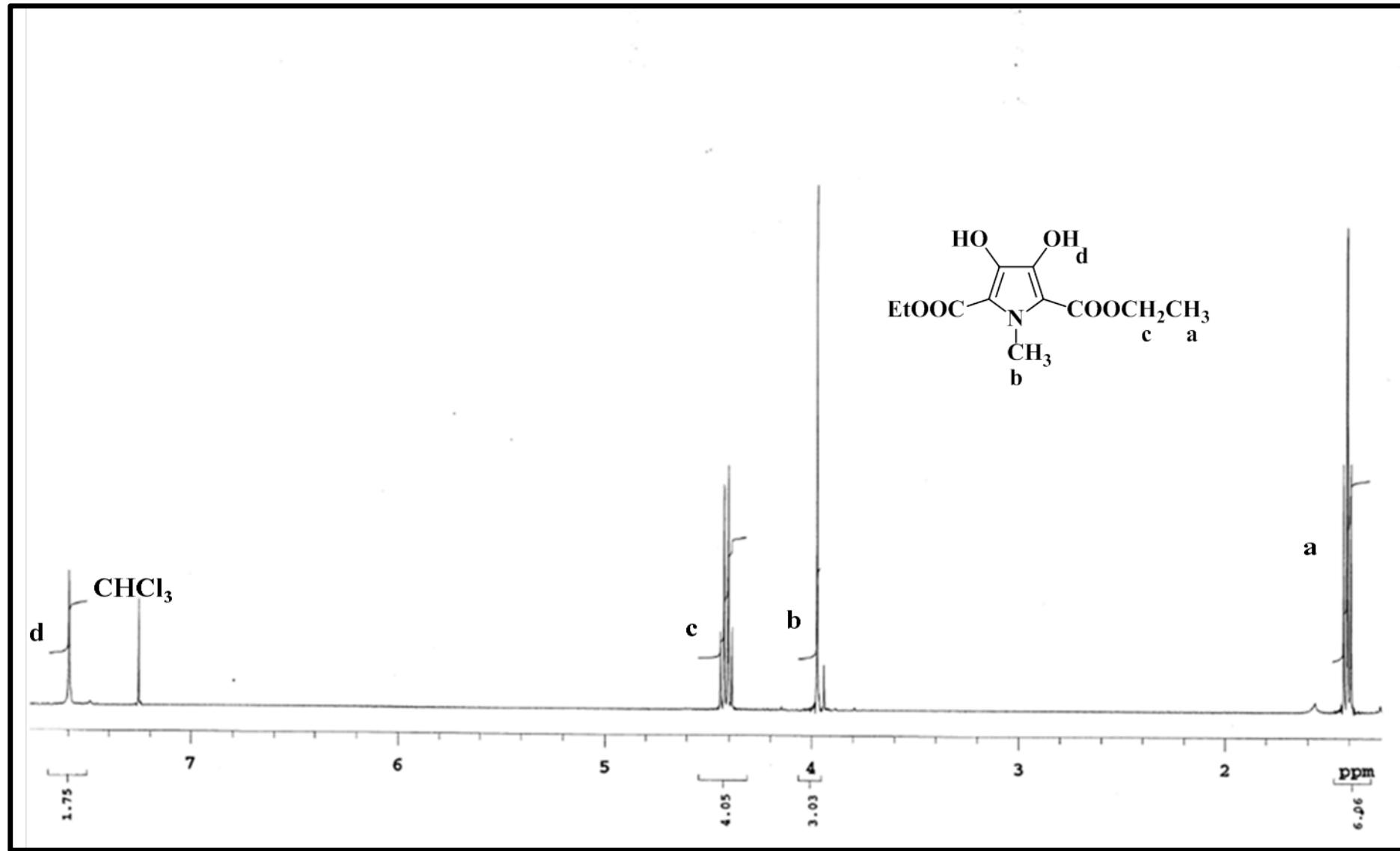


Figure S9. FT-IR spectrum of 1,2-bis(bromomethyl)benzene (3)

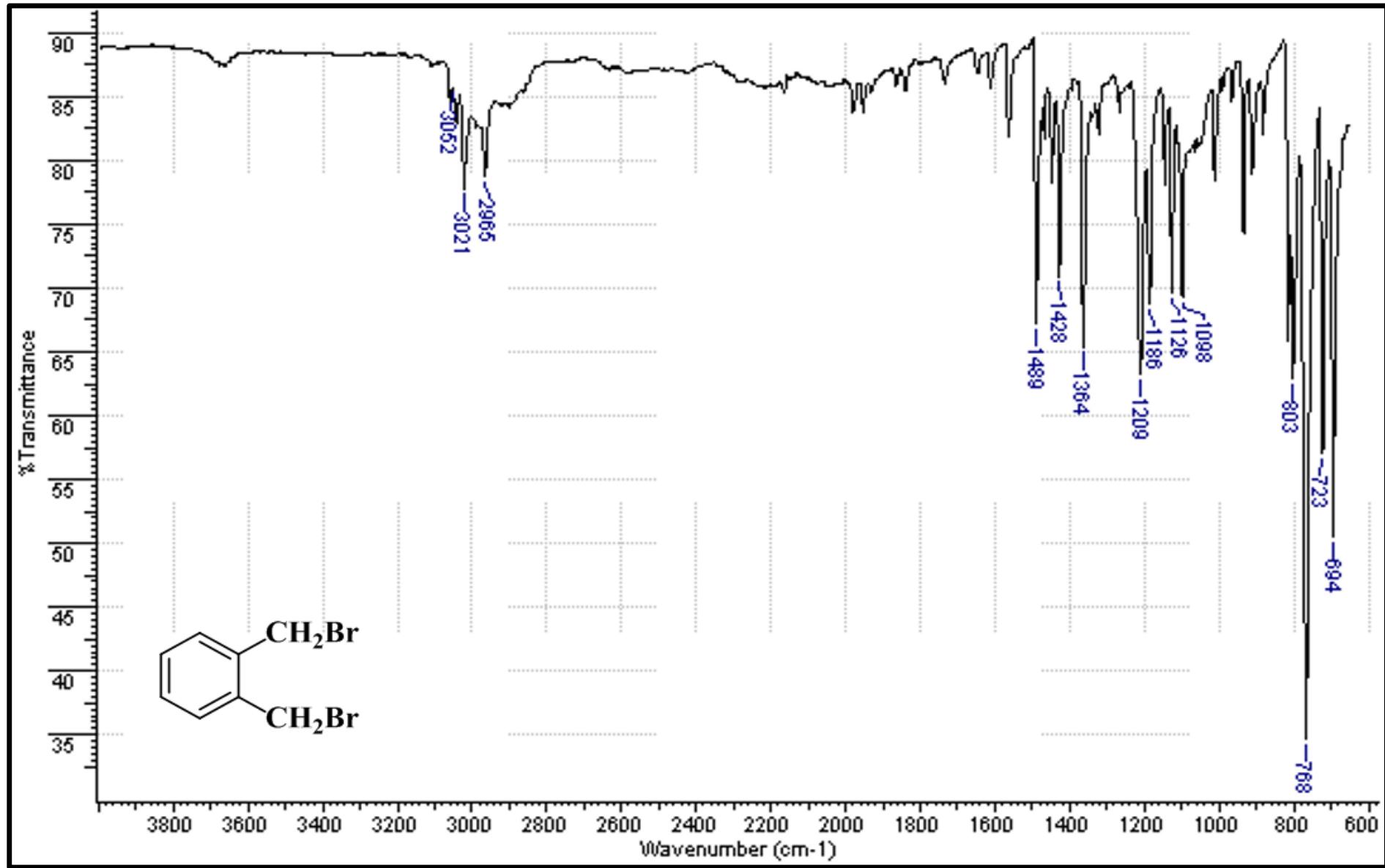


Figure S10. GC-MS spectrum of 1,2-bis(bromomethyl)benzene (3)

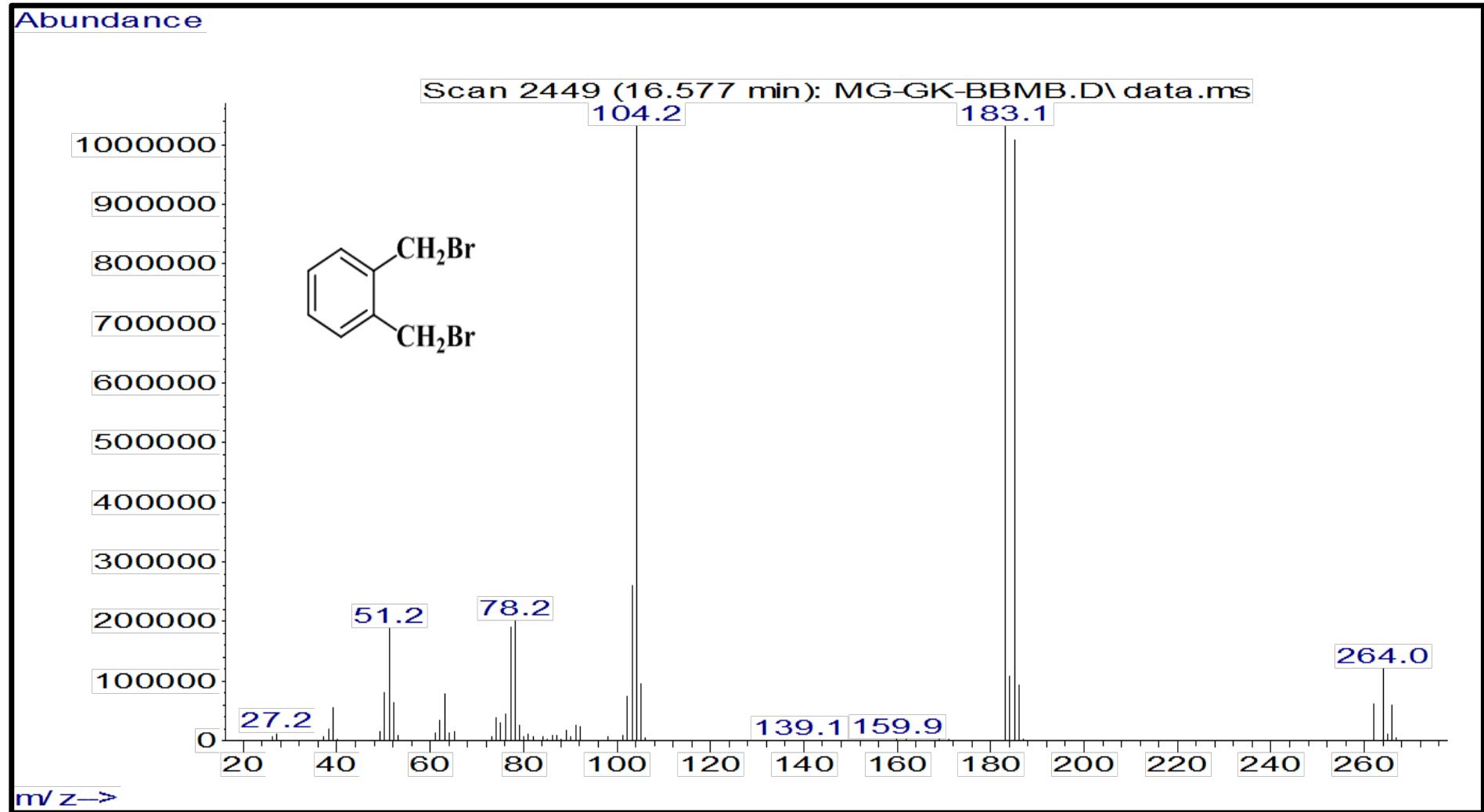


Figure S11. FT-IR spectrum of diethyl 2-methyl-5,10-dihydro-2H-benzo[6,7][1,4]dioxocino[2,3-c]pyrrole-1,3-dicarboxylate (4)

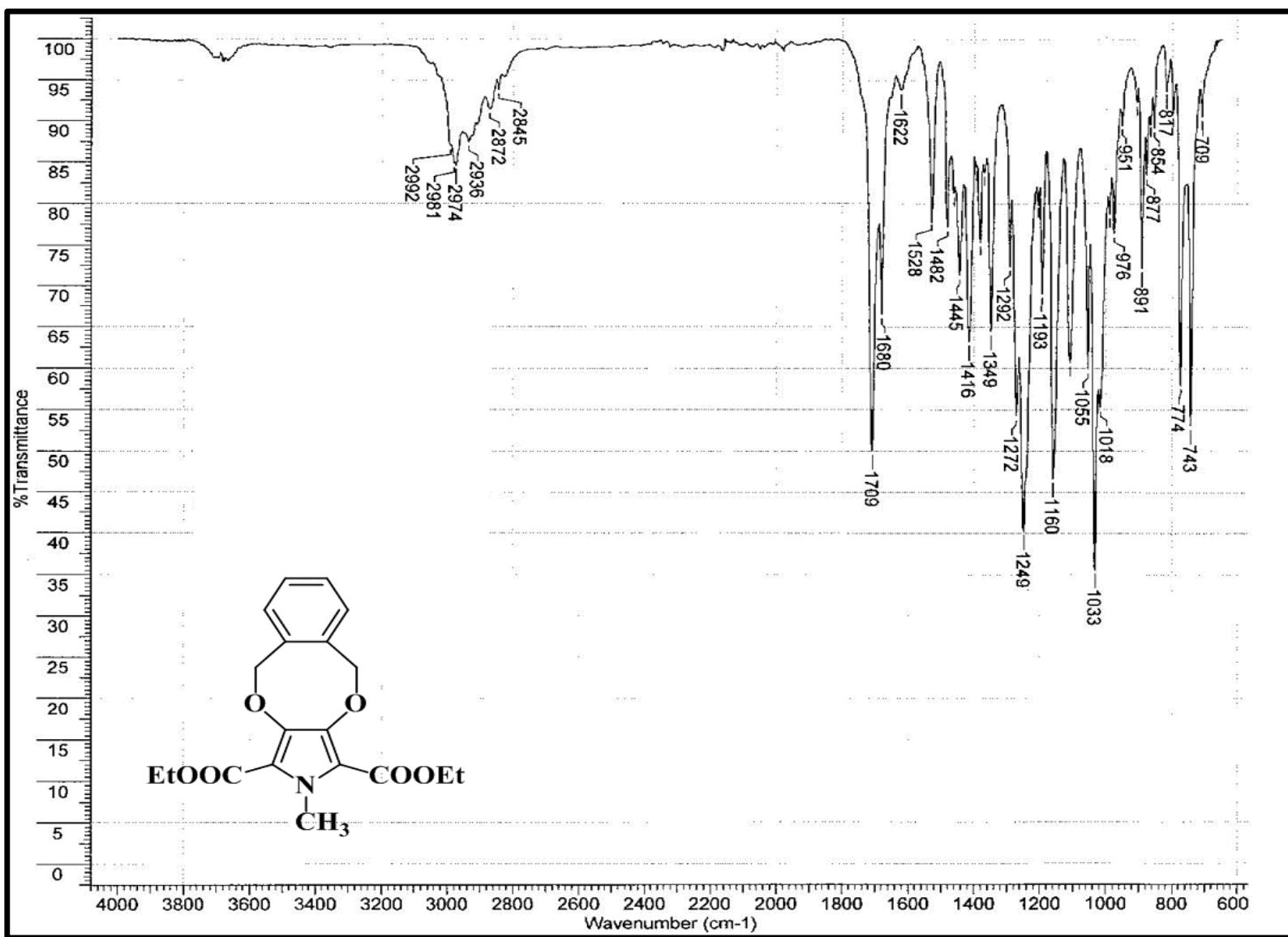


Figure S12. GC-MS spectrum of diethyl 2-methyl-5,10-dihydro-2H-benzo[6,7][1,4]dioxocino[2,3-c]pyrrole-1,3-dicarboxylate (4)

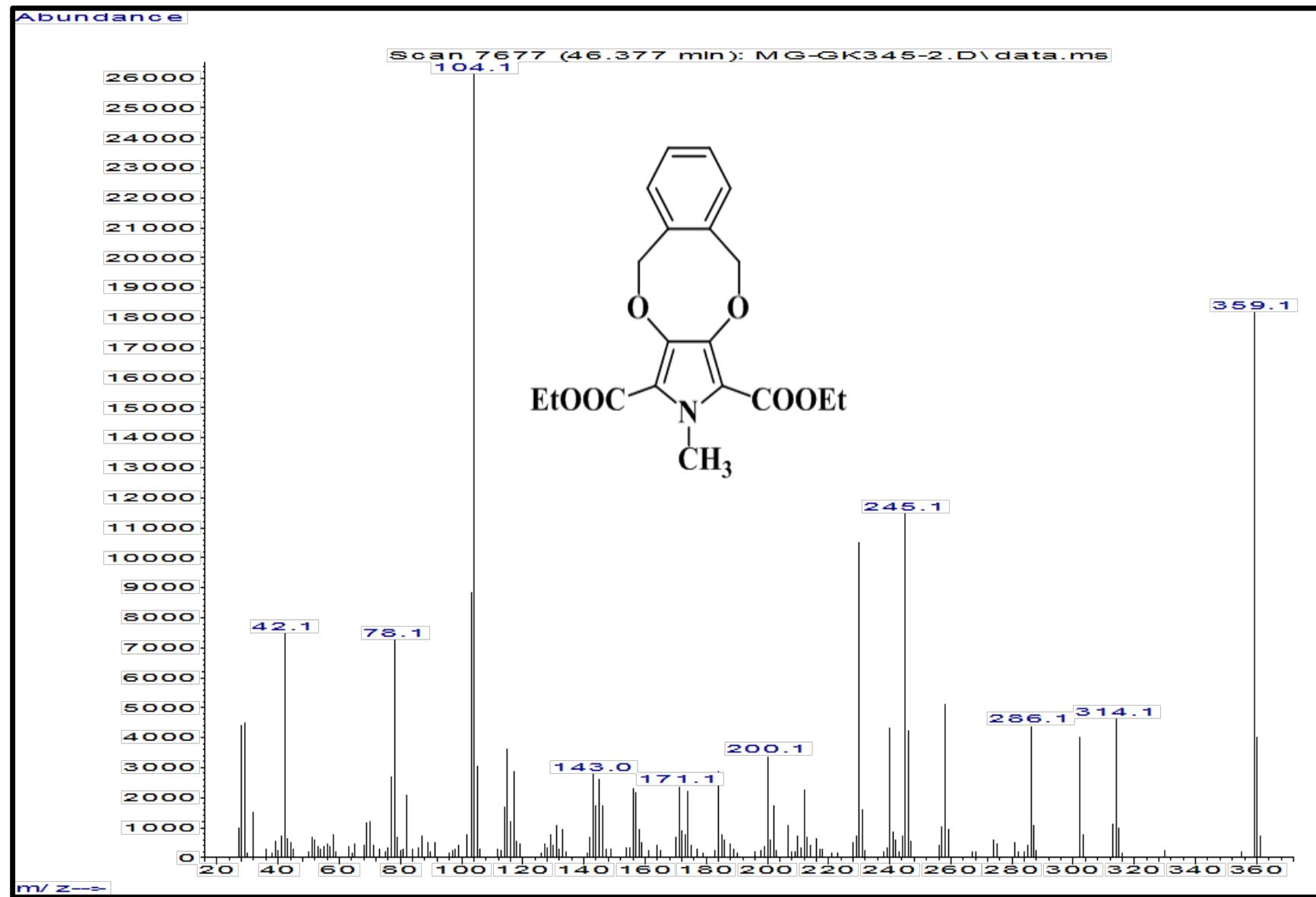


Figure S13. FT-IR spectrum of 2-methyl-5,10-dihydro-2H-benzo[6,7][1,4]dioxocino[2,3-c]pyrrole-1,3-dicarboxylic acid (5).

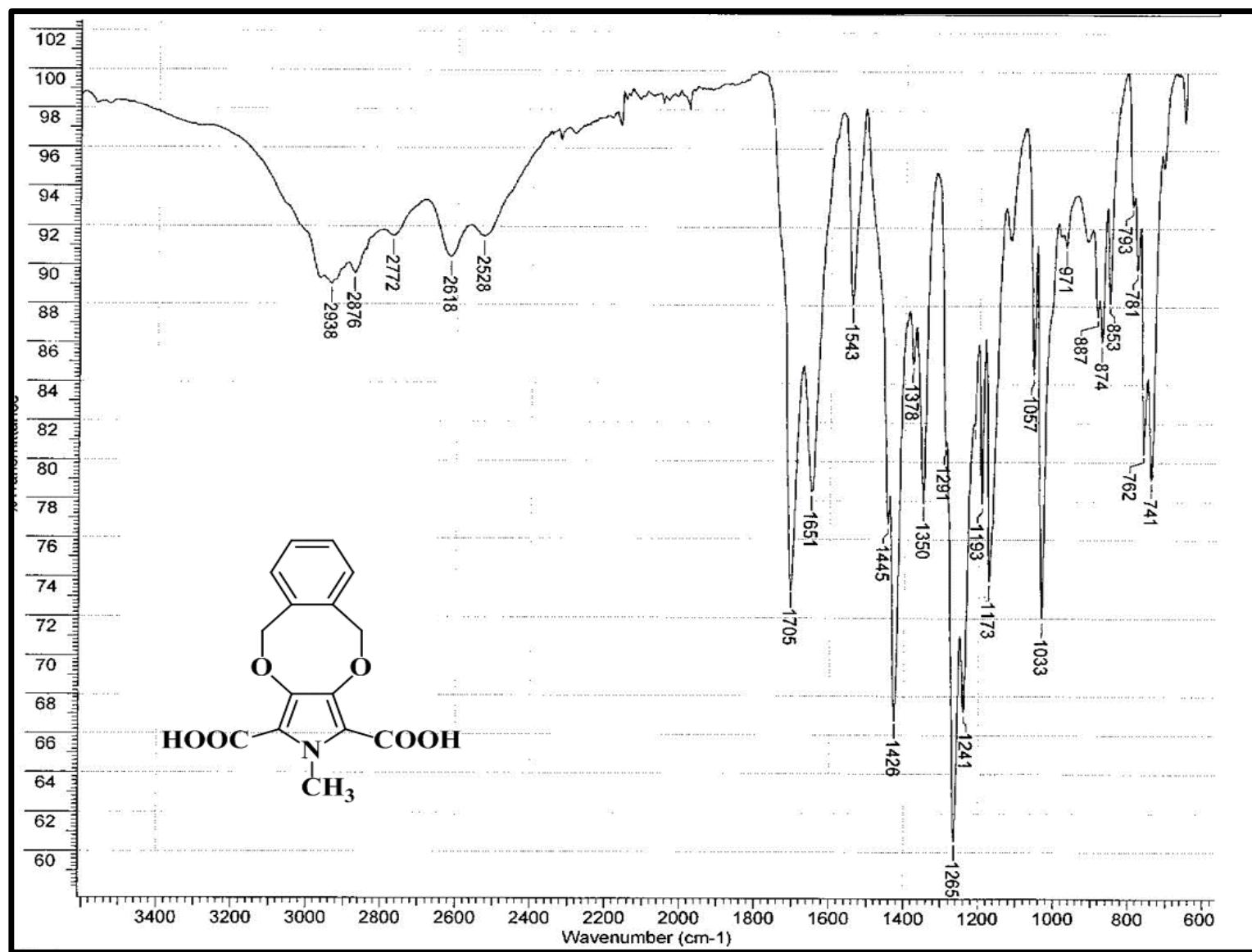


Figure S14. FT-IR spectrum of 2-methyl-5,10-dihydro-2H-benzo[6,7][1,4]dioxocino[2,3-c]pyrrole (XyPMe) (6).

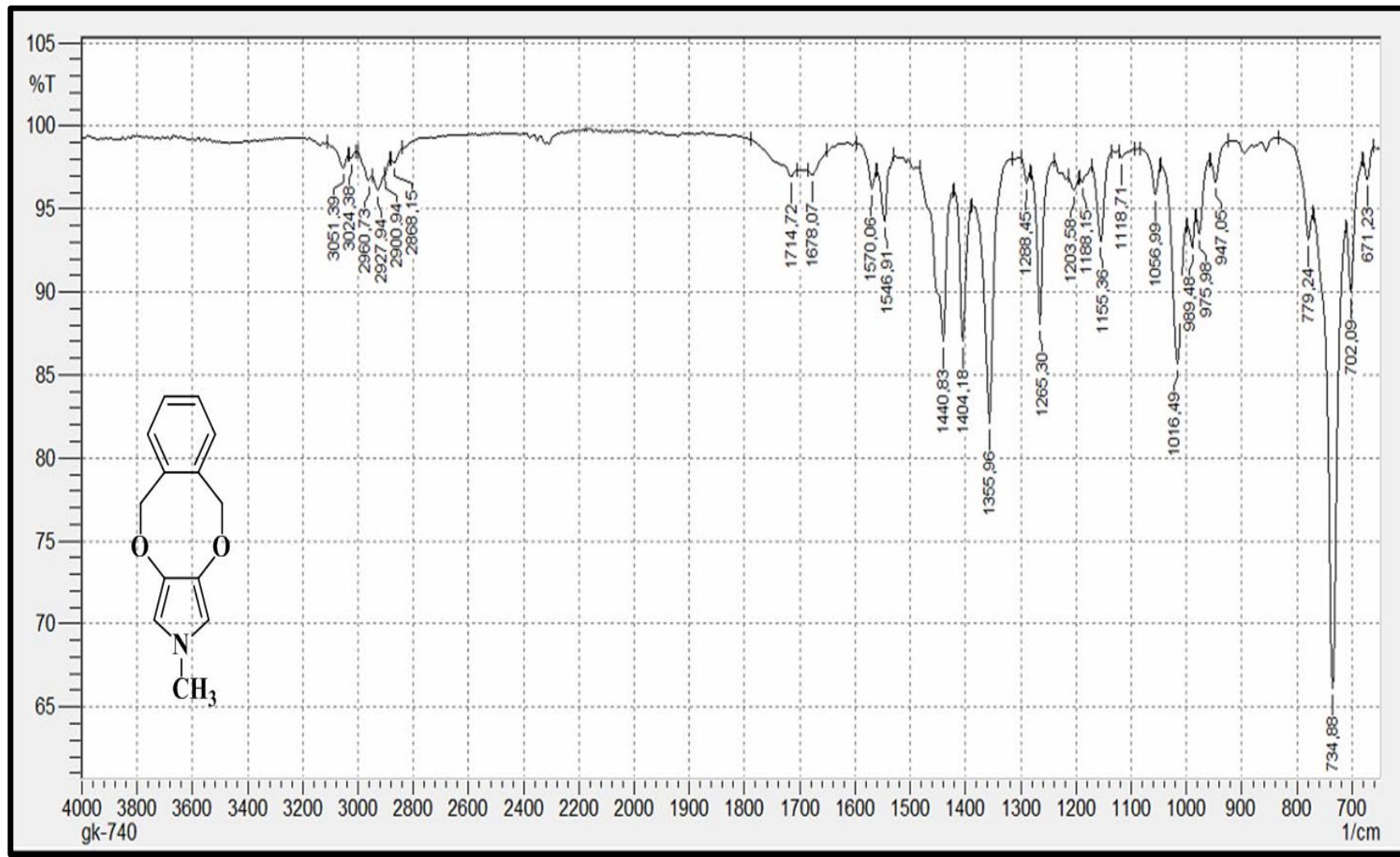


Figure S15 GC-MS spectrum of 2-methyl-5,10-dihydro-2H-benzo[6,7][1,4]dioxocino[2,3-c]pyrrole (XyPMe) (6).

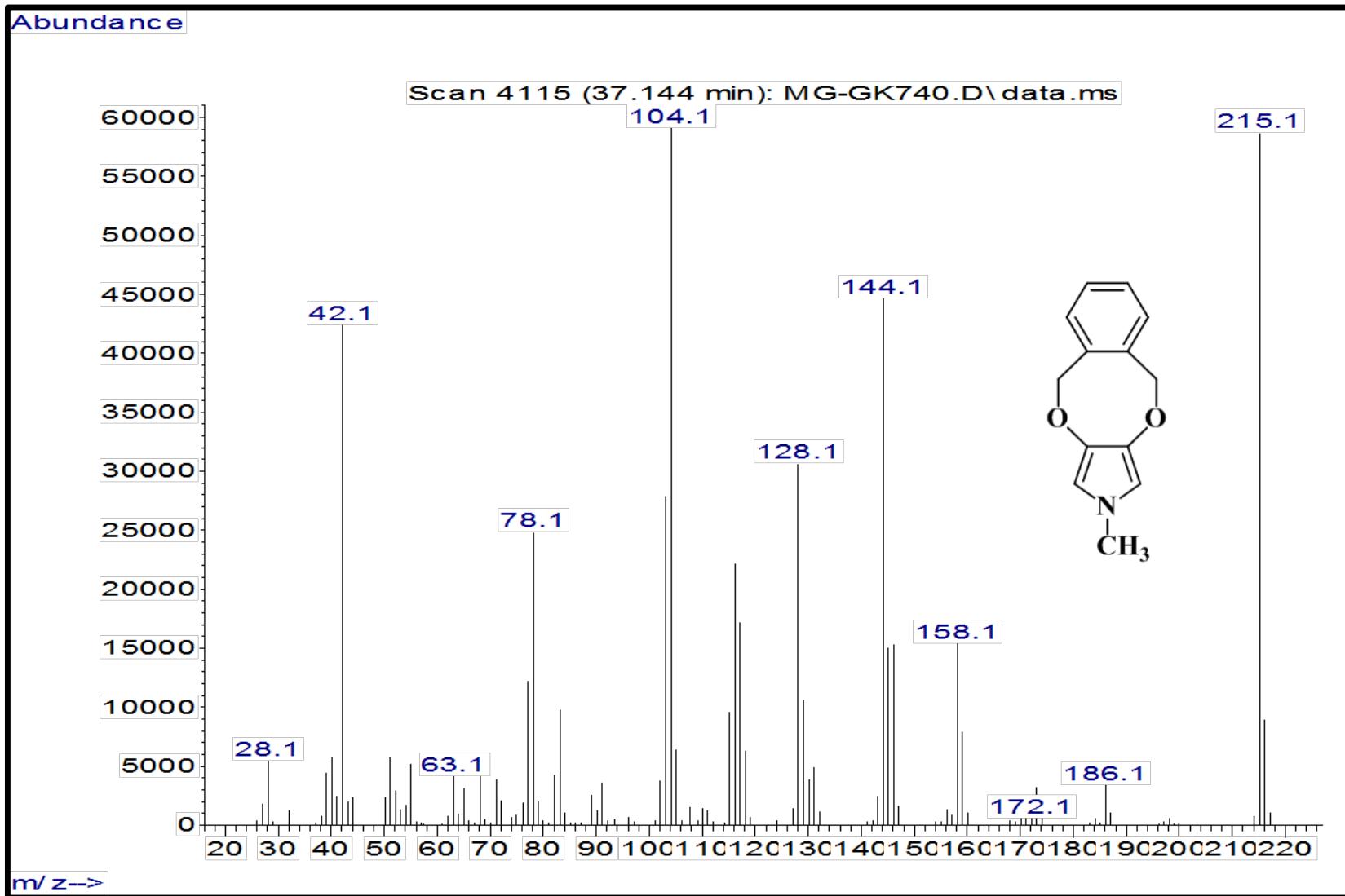
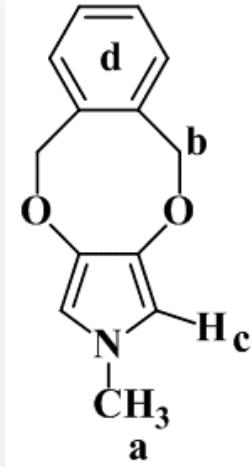


Figure S16 ^1H -NMR spectrum of 2-methyl-5,10-dihydro-2*H*-benzo[6,7][1,4]dioxocino[2,3-*c*]pyrrole (*XyPMe*) (6).

GK-740

Sample Name:
GK-740
Data Collected on:
mercury400-mercury400
Archive directory:
/home/vnmri/vnmrsys/data
FidFile: PROTON_01

Agilent Technologies



Operator: vnmri

Relax. delay 1.000 sec
Pulse 45.0 degrees
Acq. time 2.561 sec
Width 6398.0 Hz
8 repetitions
OBSERVE H1, 400.1740753 MHz
DATA PROCESSING
FT size 32768
Total time 0 min 31 sec

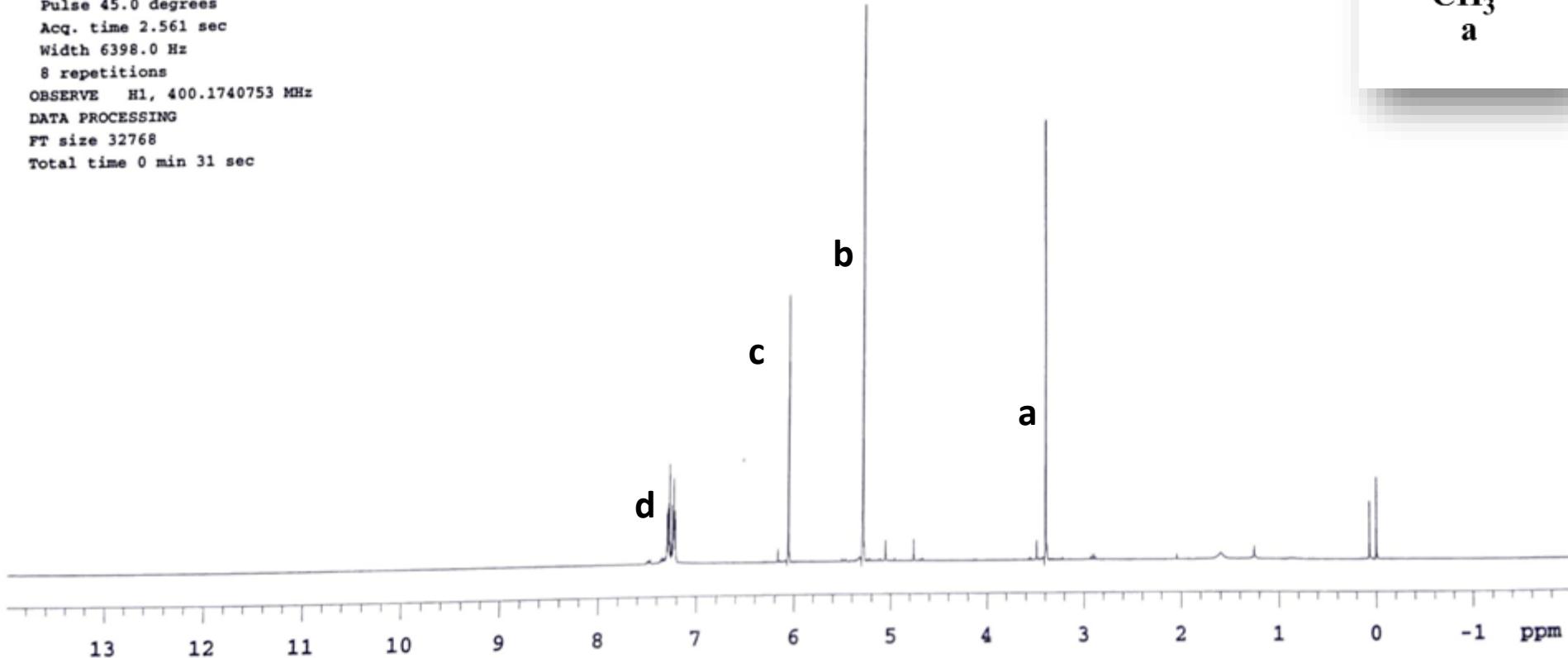


Figure S16 ^1H -NMR spectrum of 2-methyl-5,10-dihydro-2*H*-benzo[6,7][1,4]dioxocino[2,3-*c*]pyrrole (*XyPMe*) (6).

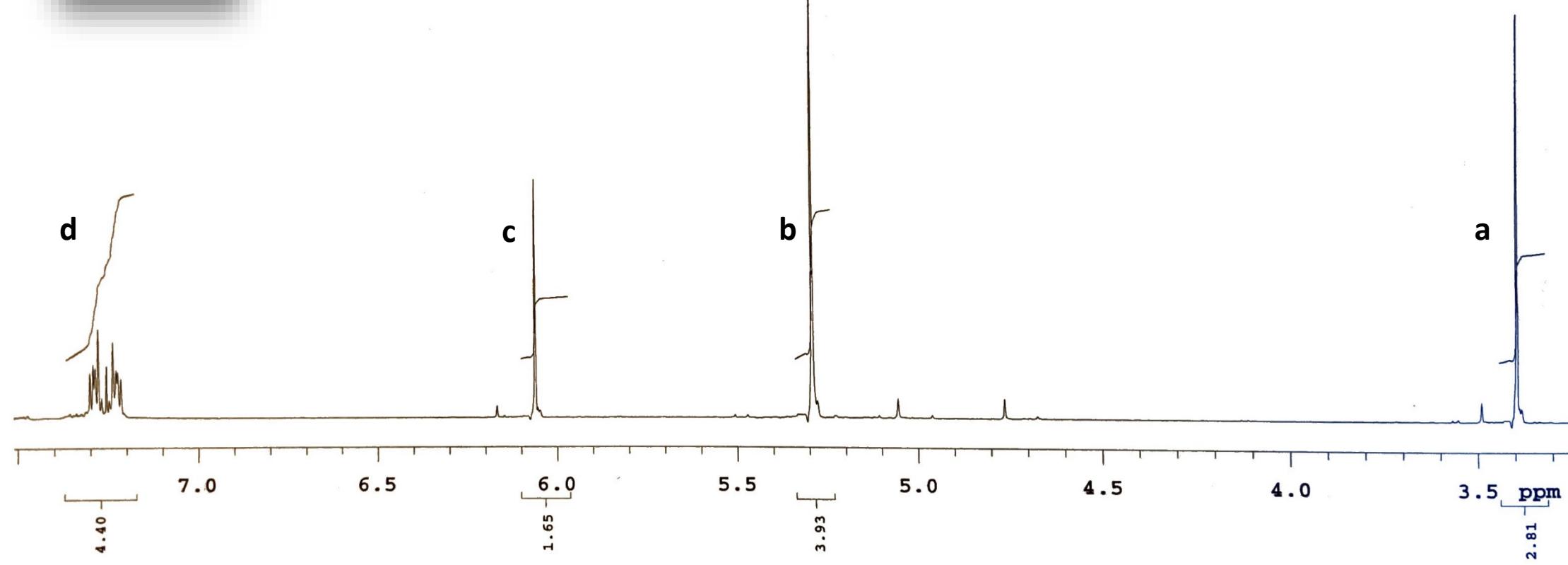
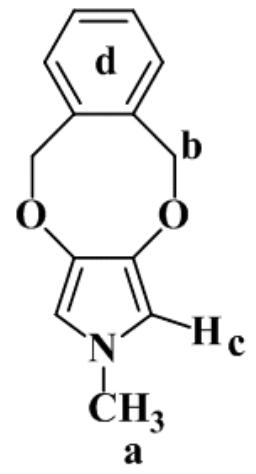


Figure S16 ^1H -NMR spectrum of 2-methyl-5,10-dihydro-2*H*-benzo[6,7][1,4]dioxocino[2,3-*c*]pyrrole (*XyPMe*) (6).

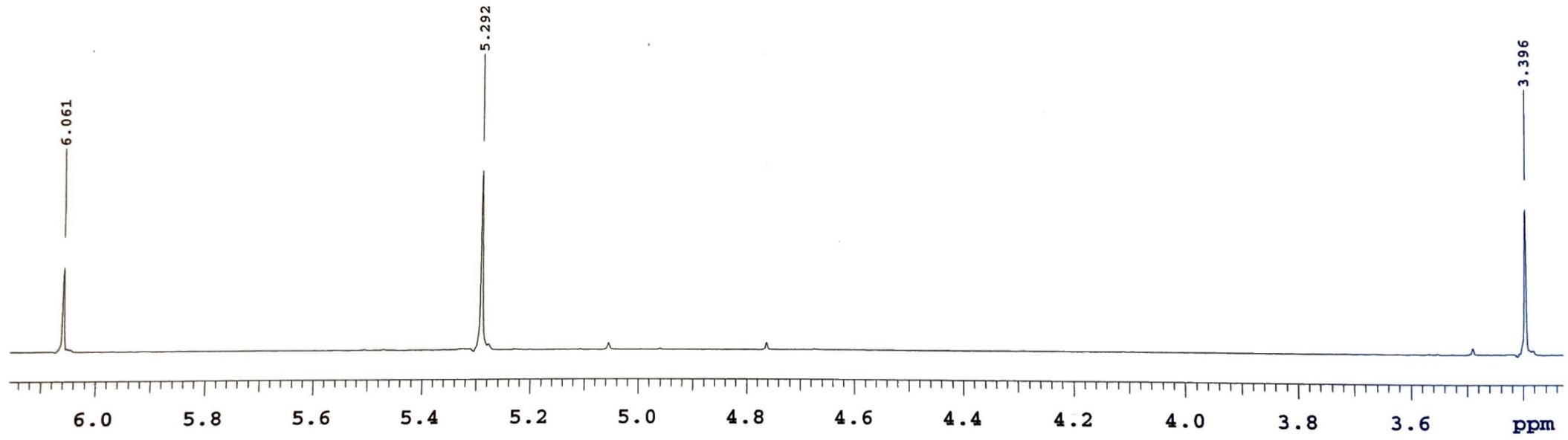


Figure S16 ^1H -NMR spectrum of 2-methyl-5,10-dihydro-2*H*-benzo[6,7][1,4]dioxocino[2,3-*c*]pyrrole (*XyPMe*) (6).

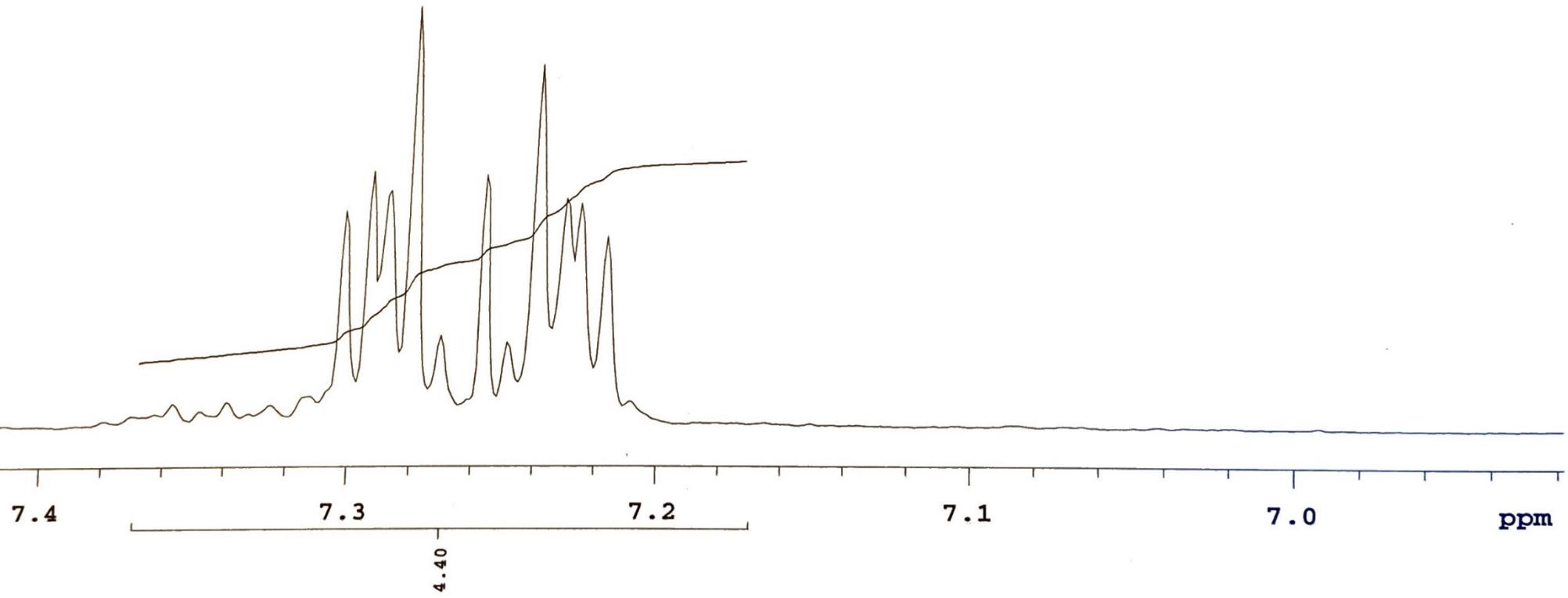


Figure S17-1 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPMe-monomer

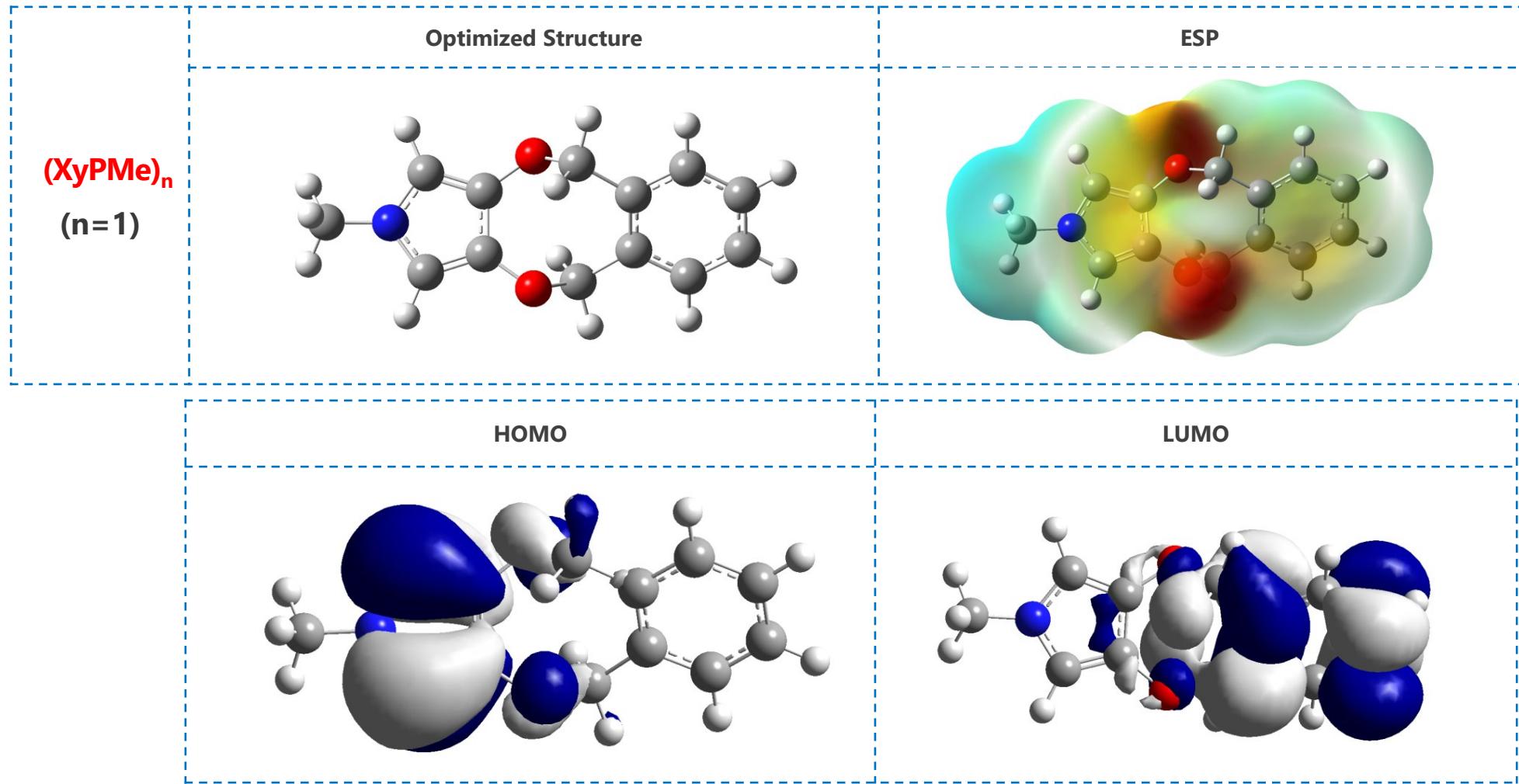


Figure S17-2 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPMe-dimer

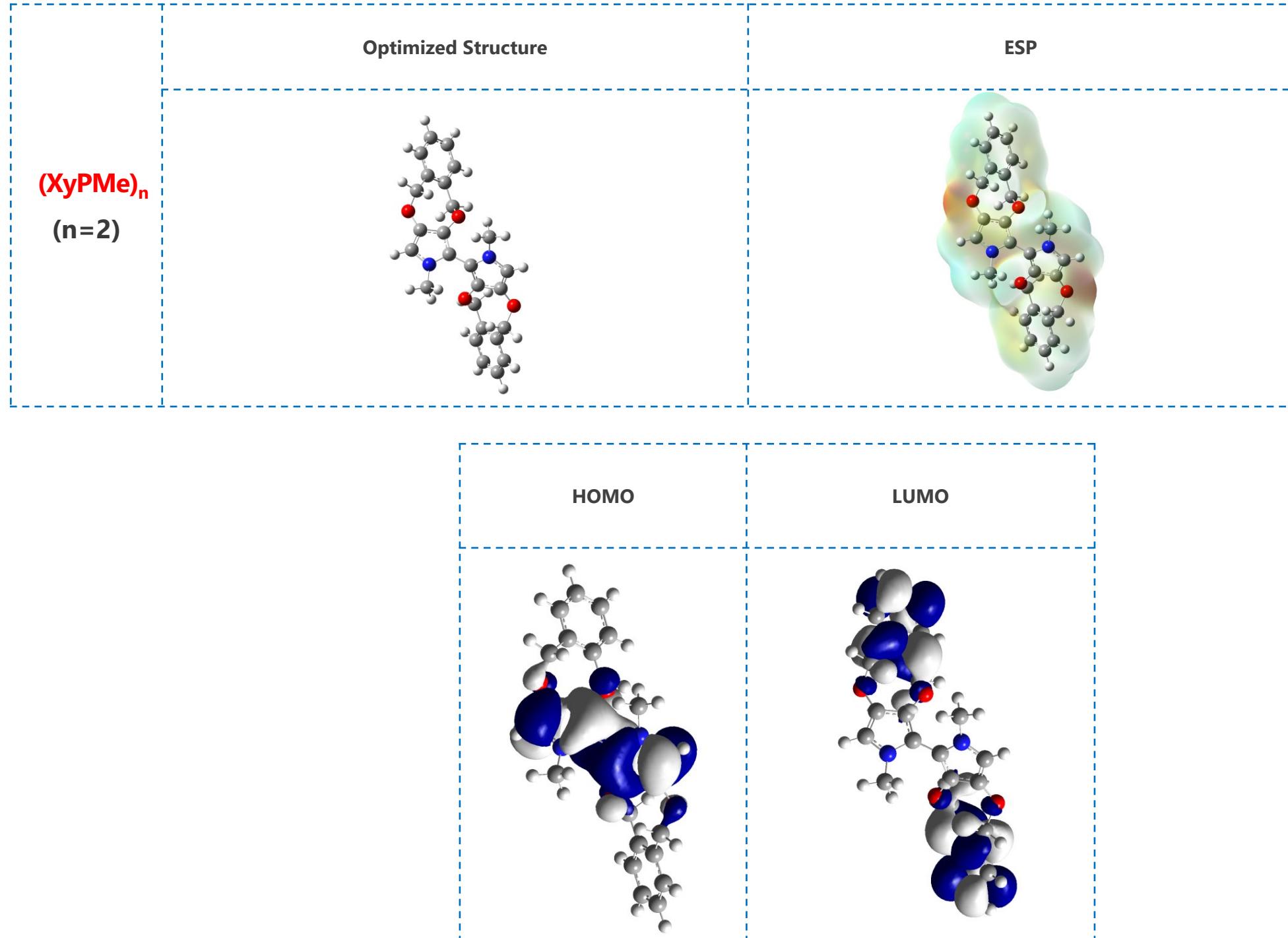


Figure S17-3 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPMe-trimer

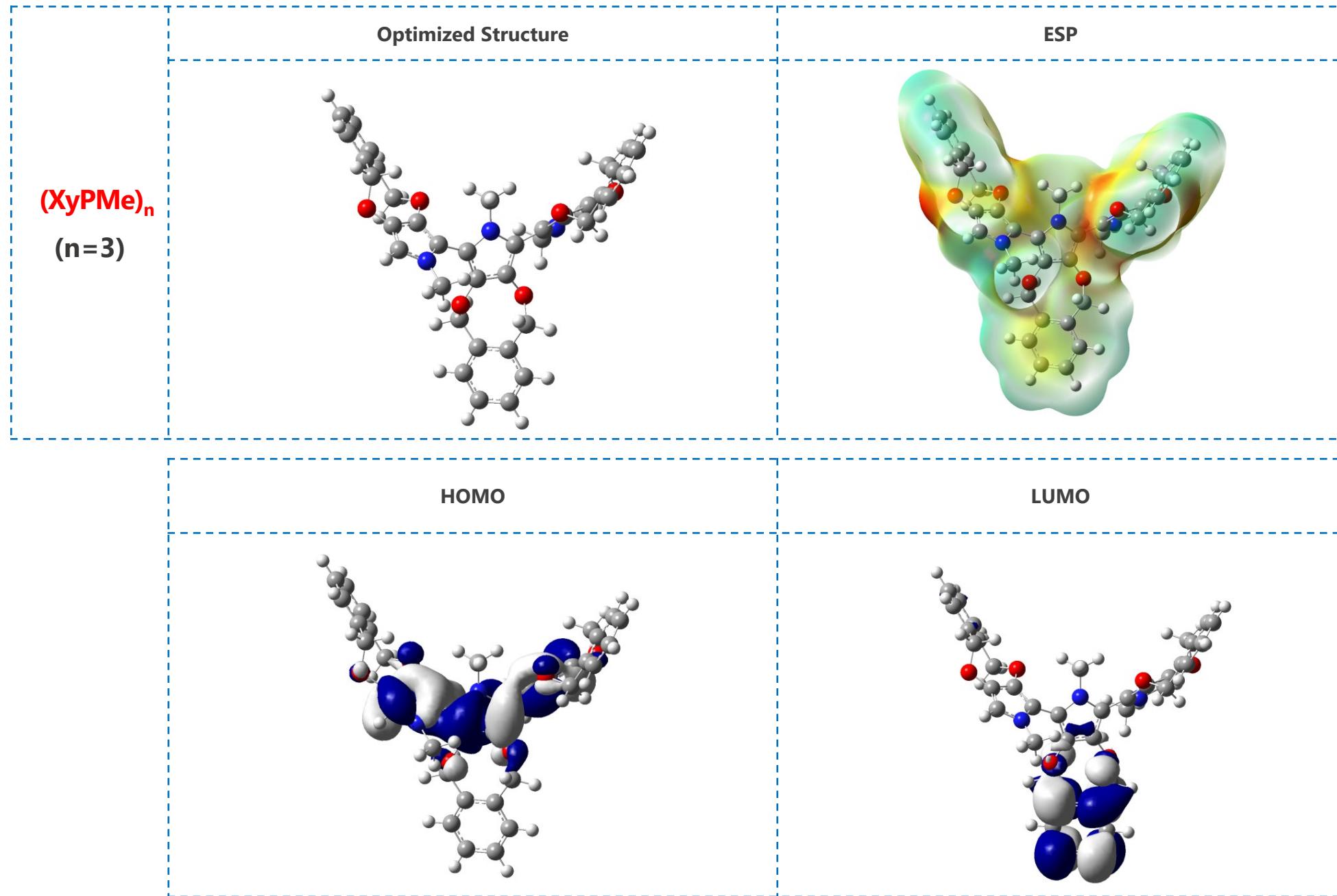


Figure S17-4 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPMe-tetramer

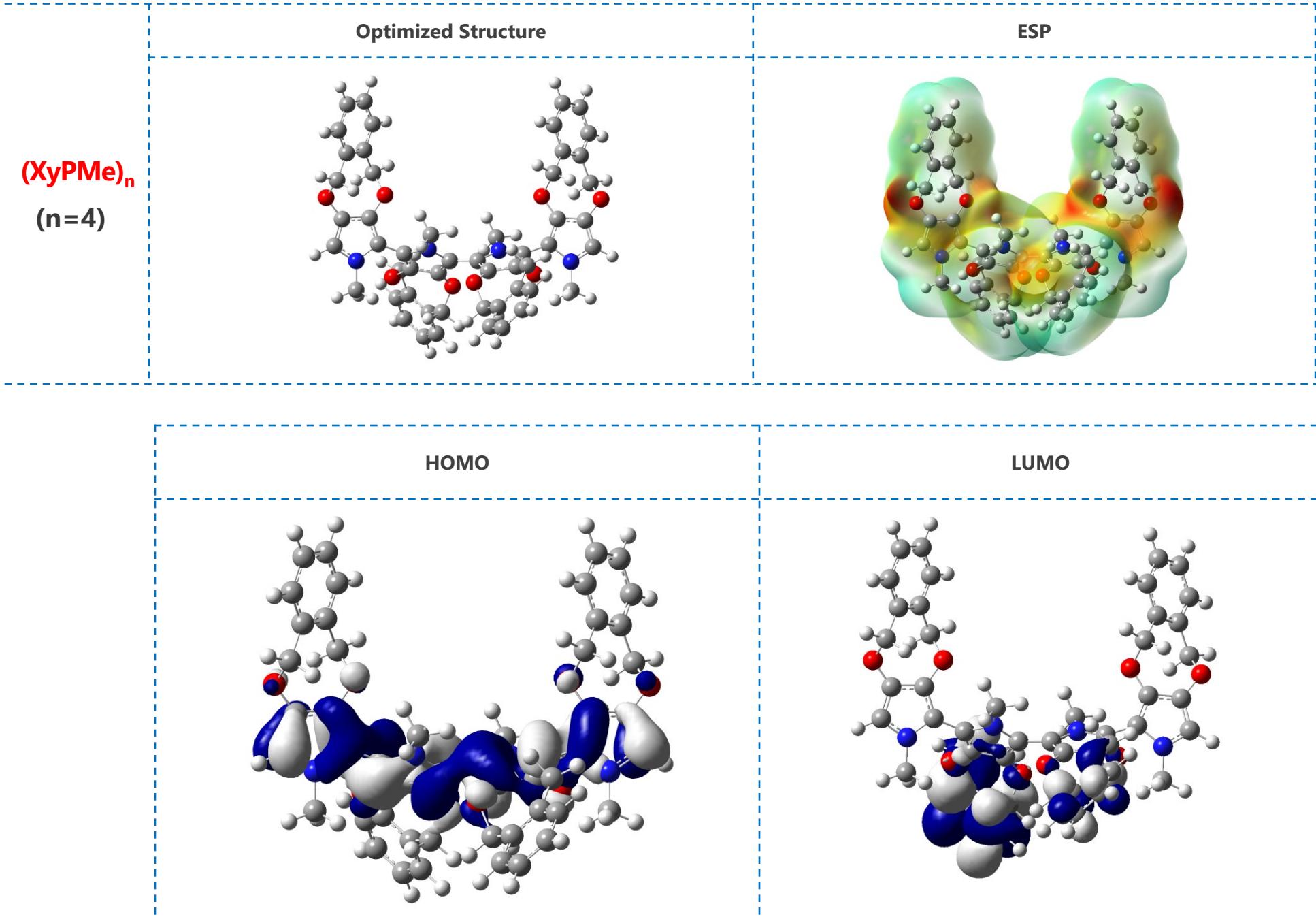


Figure S17-5 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPMe-pentamer

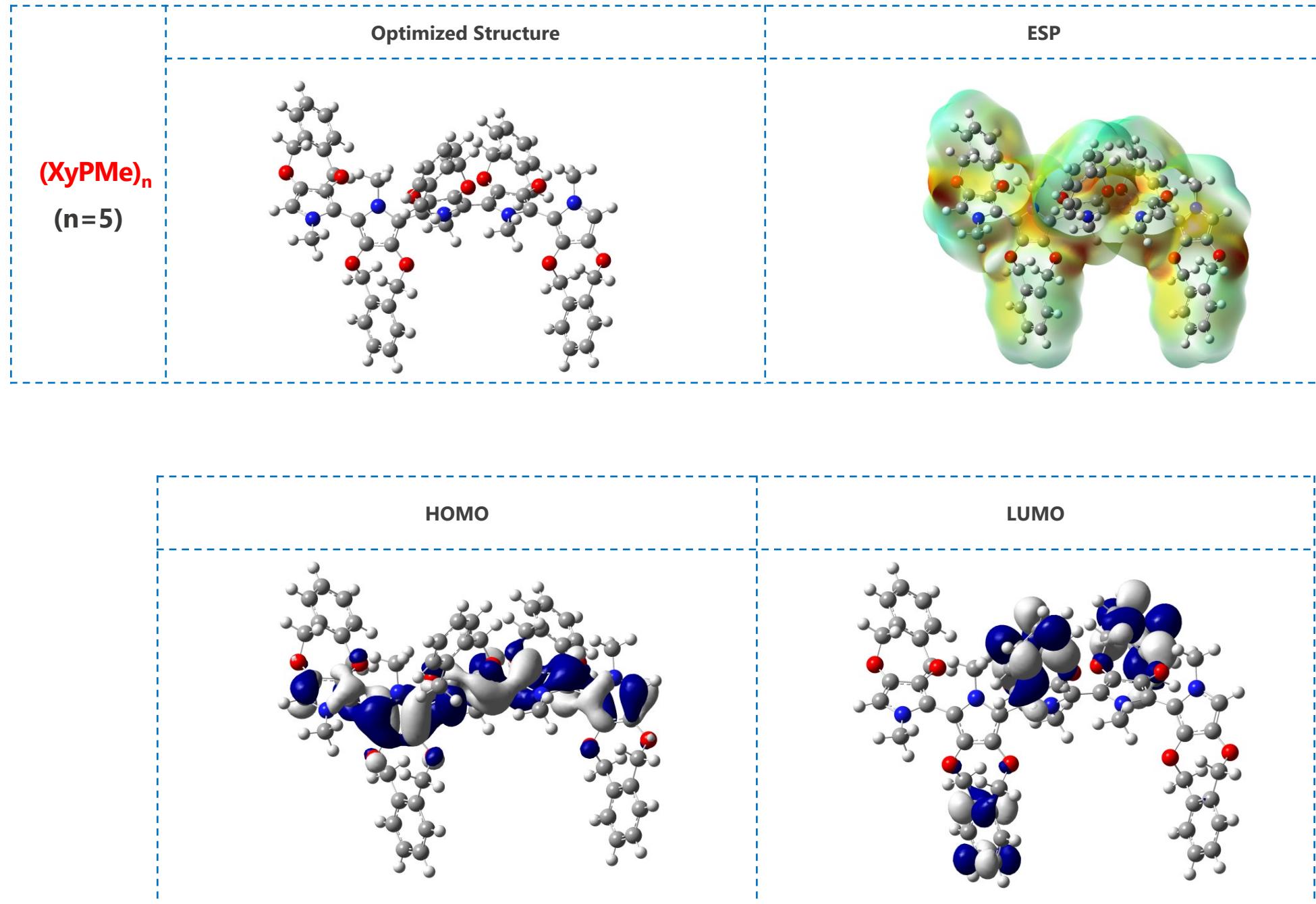


Figure S17-6 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPMe-hexamer

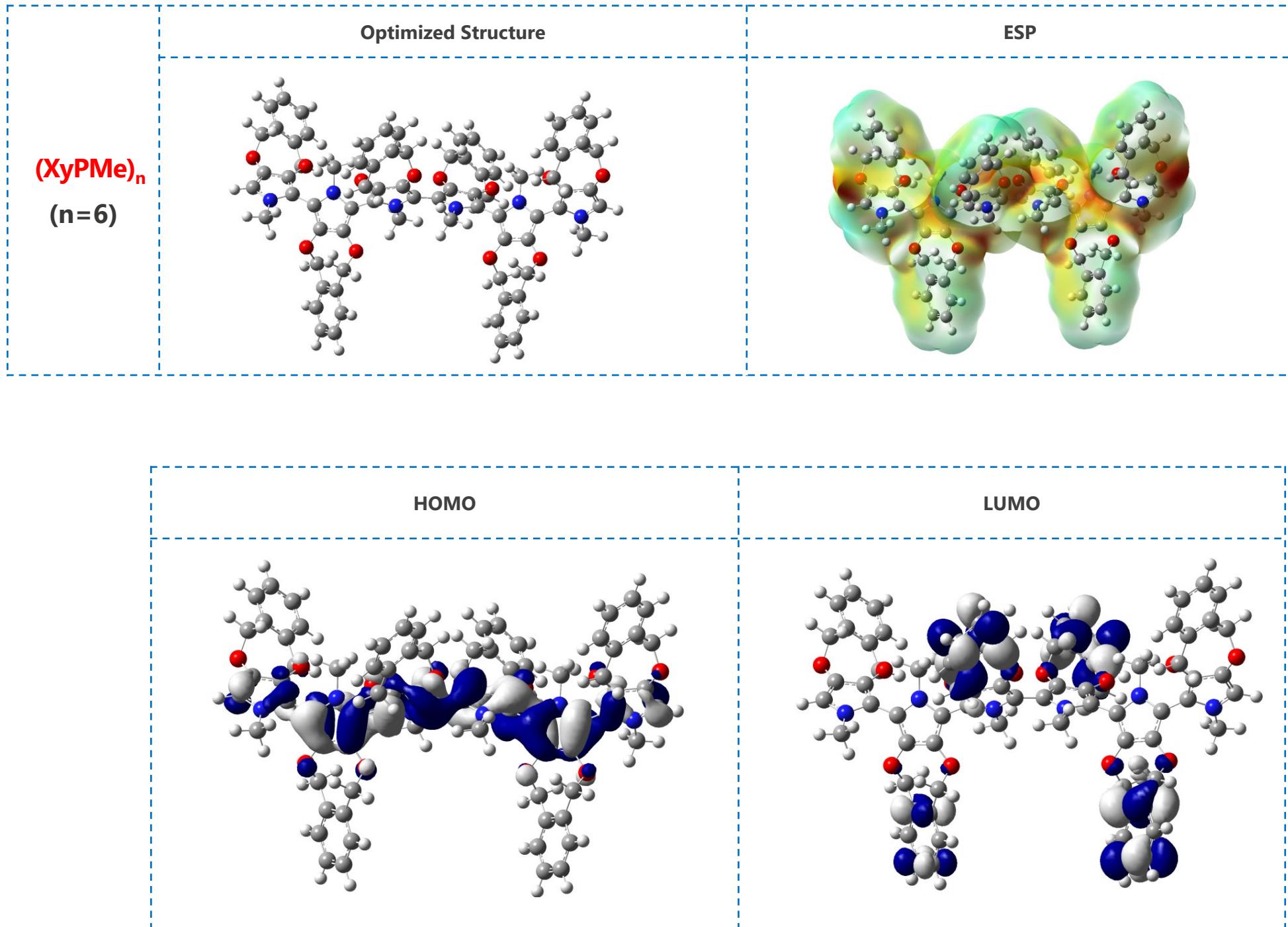


Figure S17-7 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPMe-heptamer

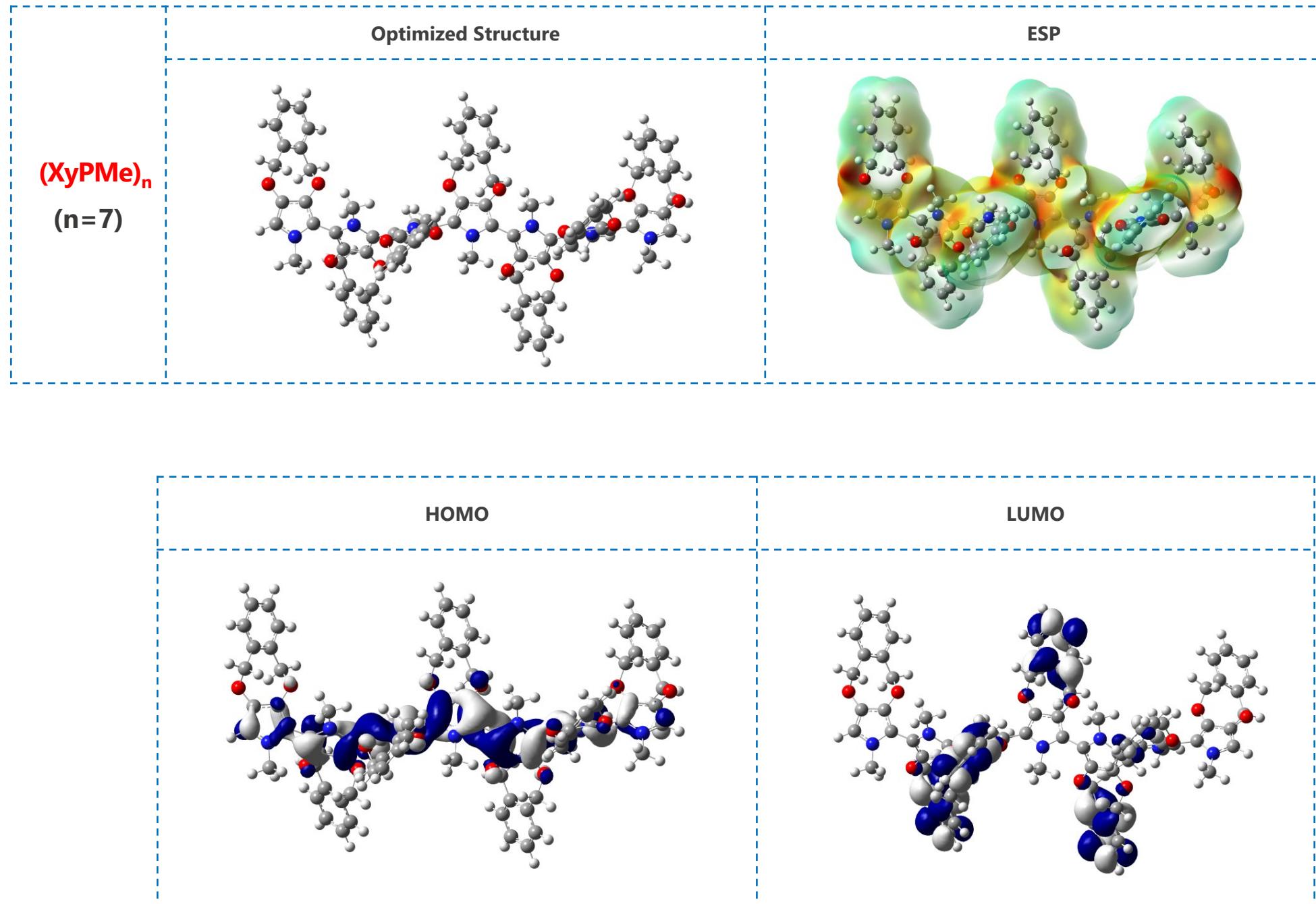


Figure S17-8 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPMe-octamer

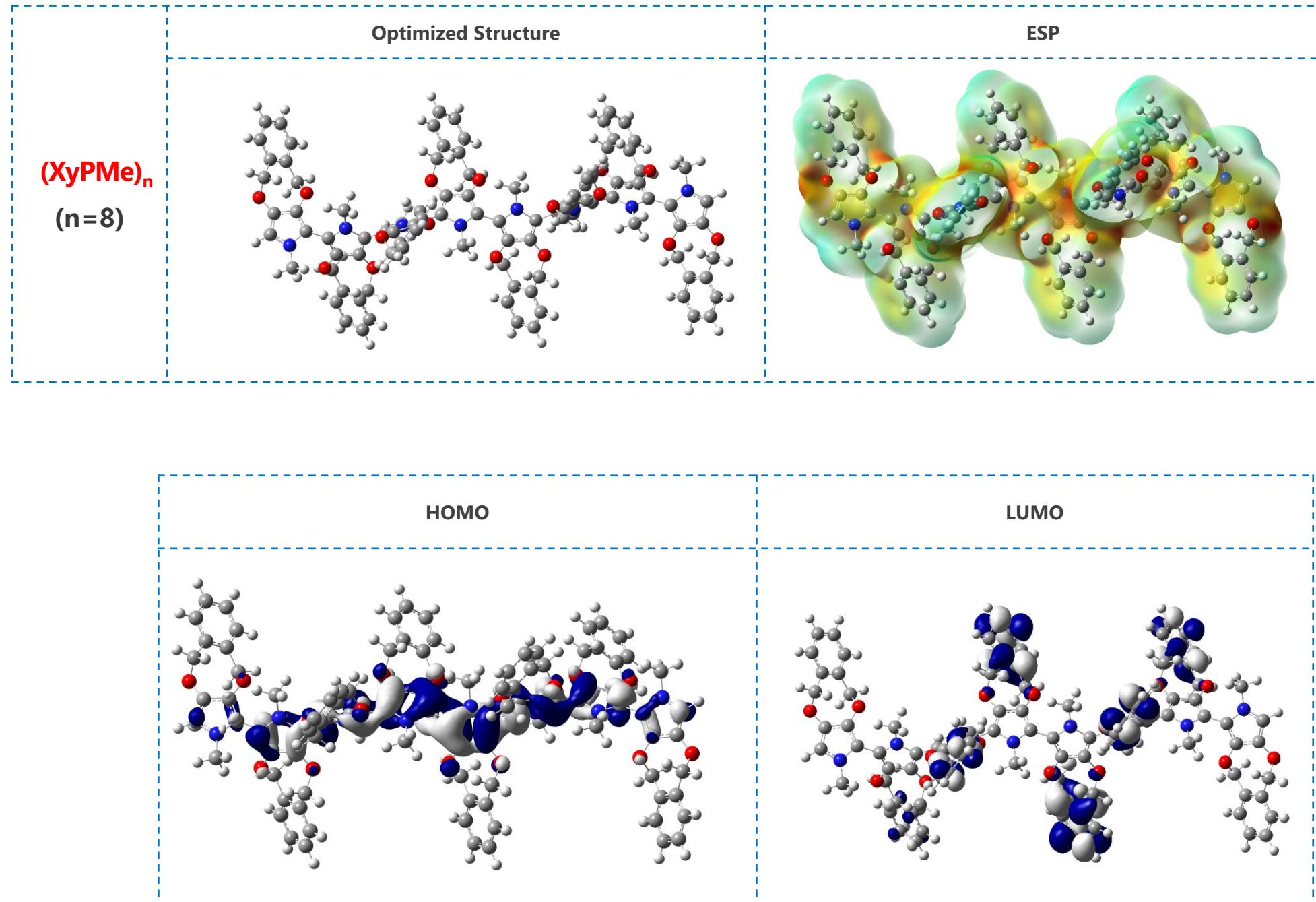


Figure S17-9 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPMe-nonamer

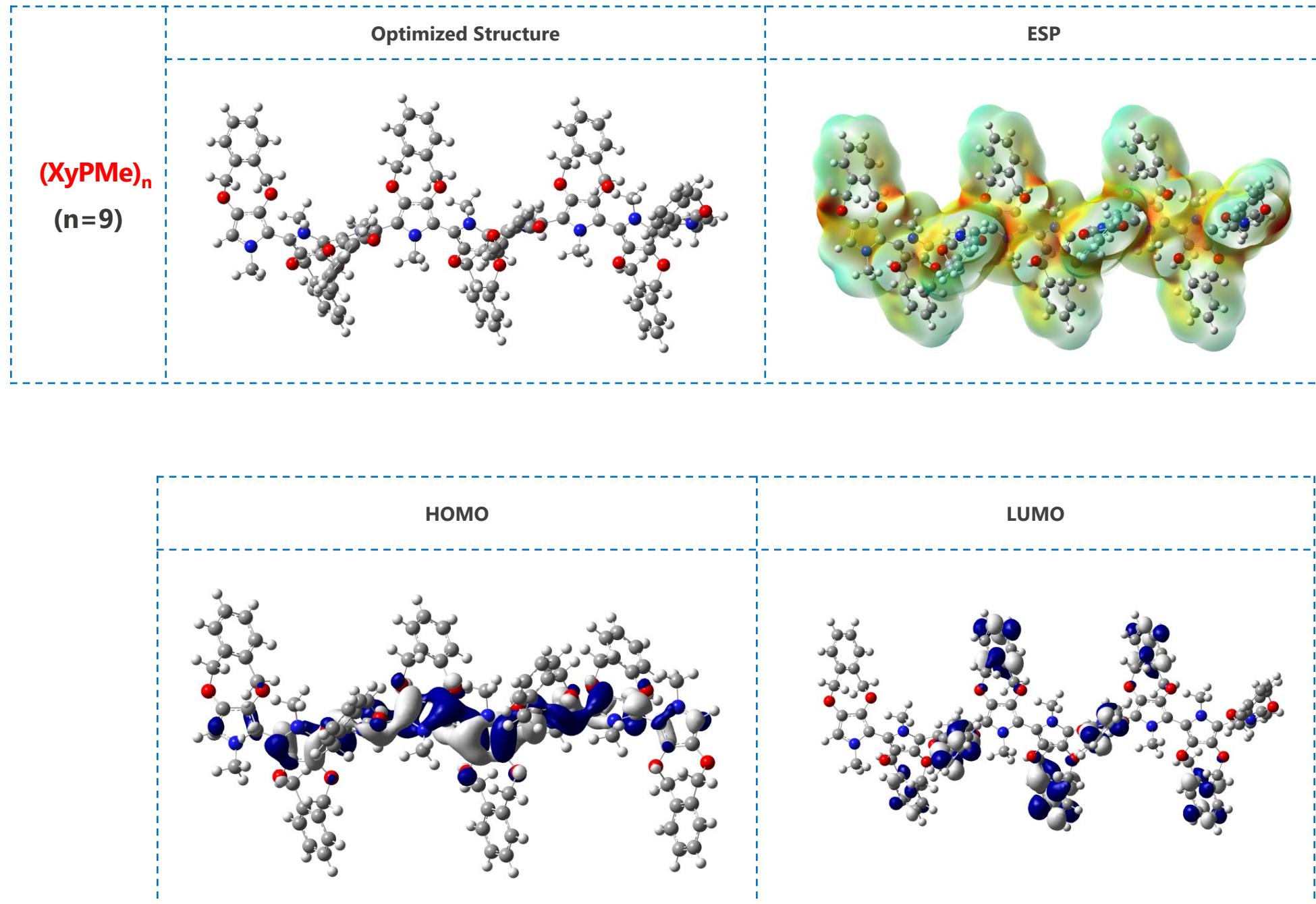


Figure S17-10 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPMe-decamer

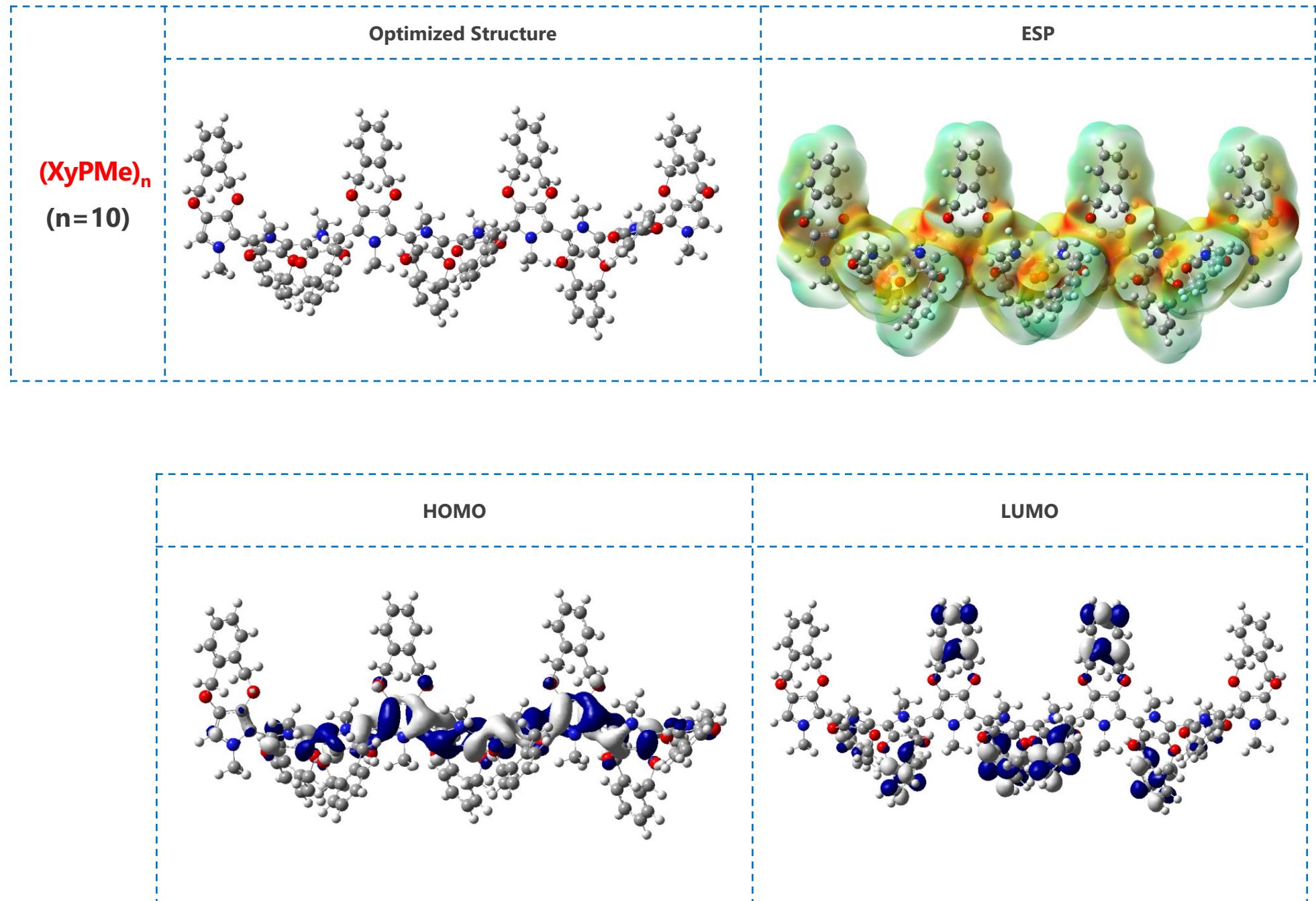


Figure S17-11 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPMe-undecamer

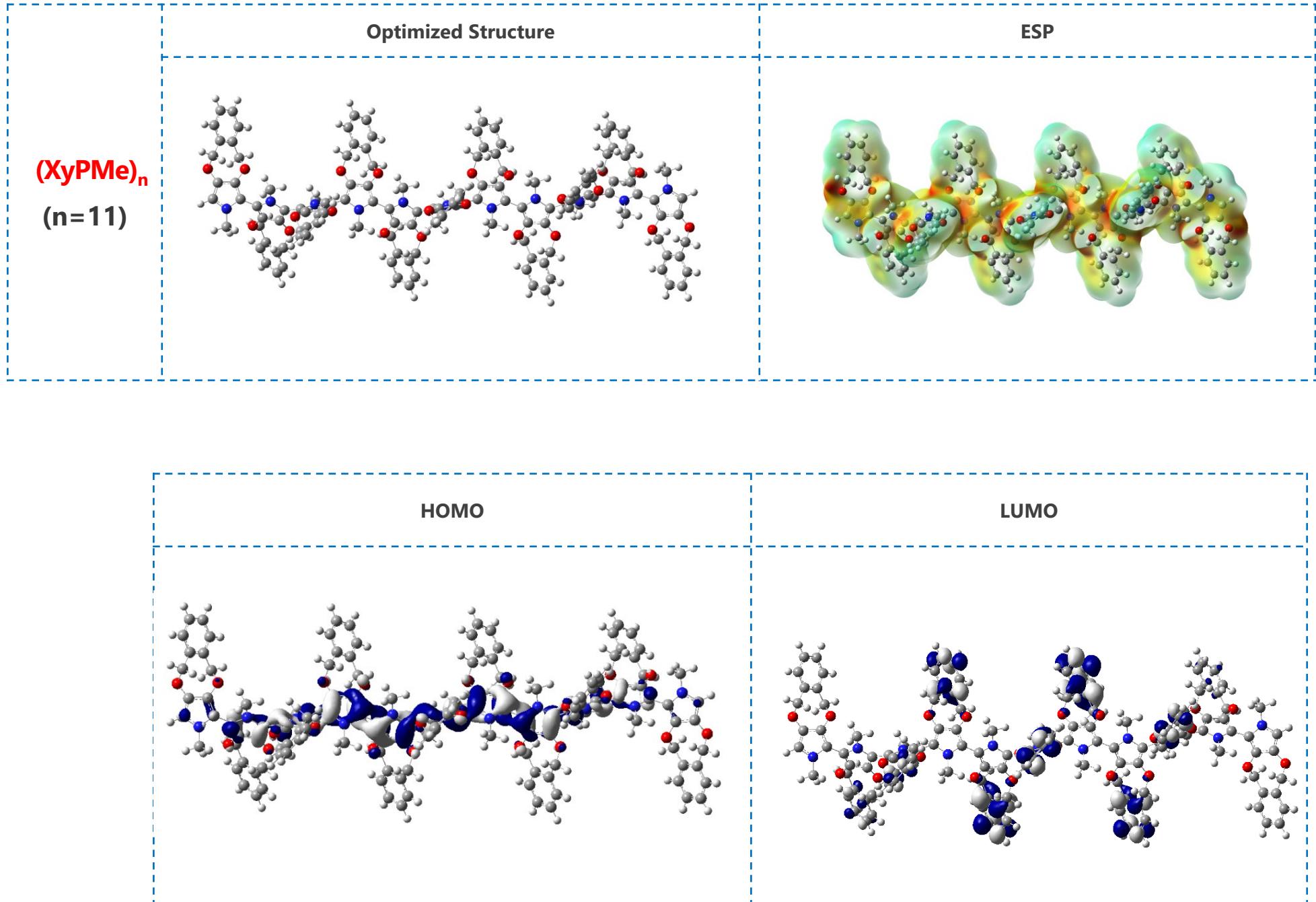


Figure S18-1 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPBu-monomer

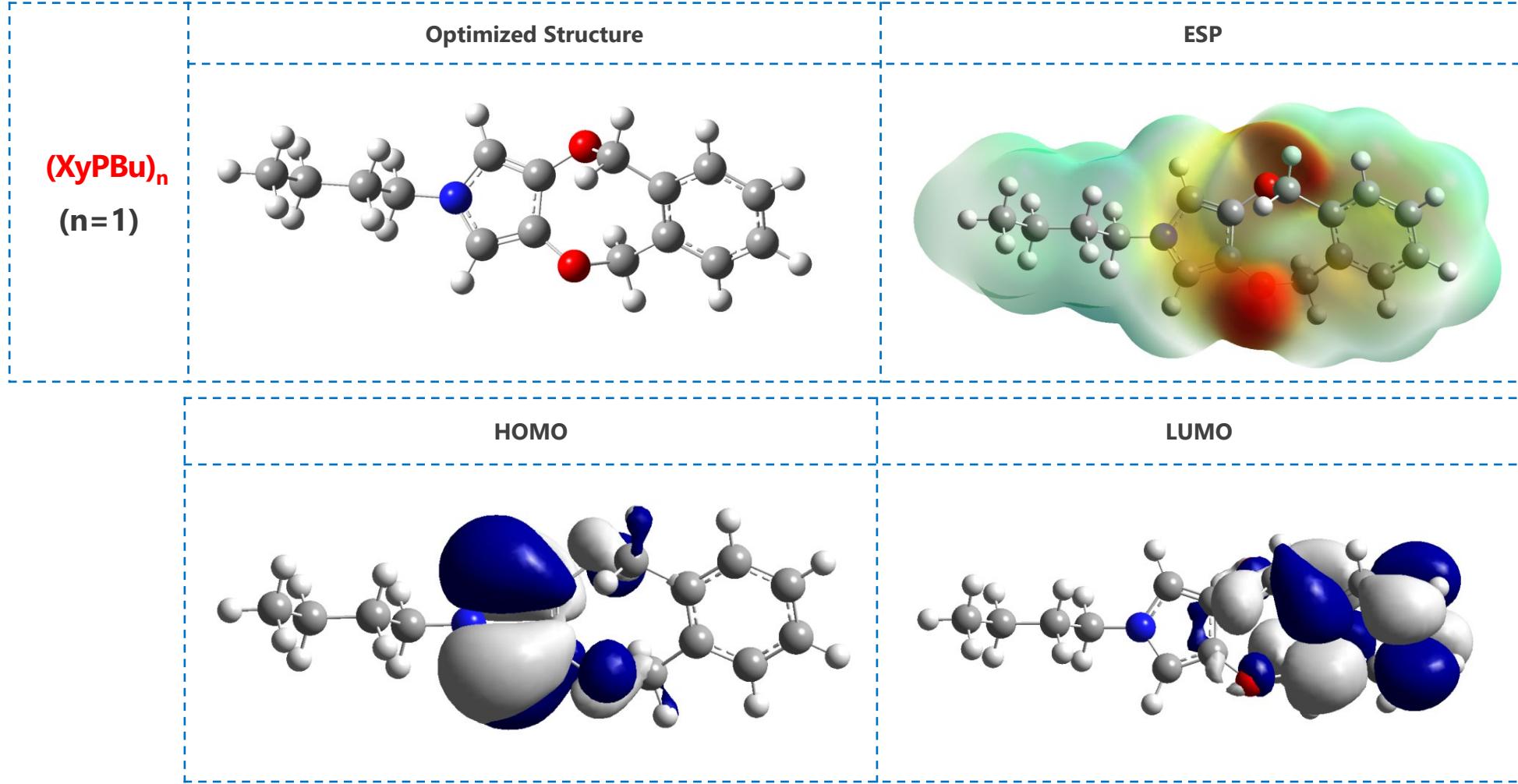


Figure S18-2 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPBu-dimer

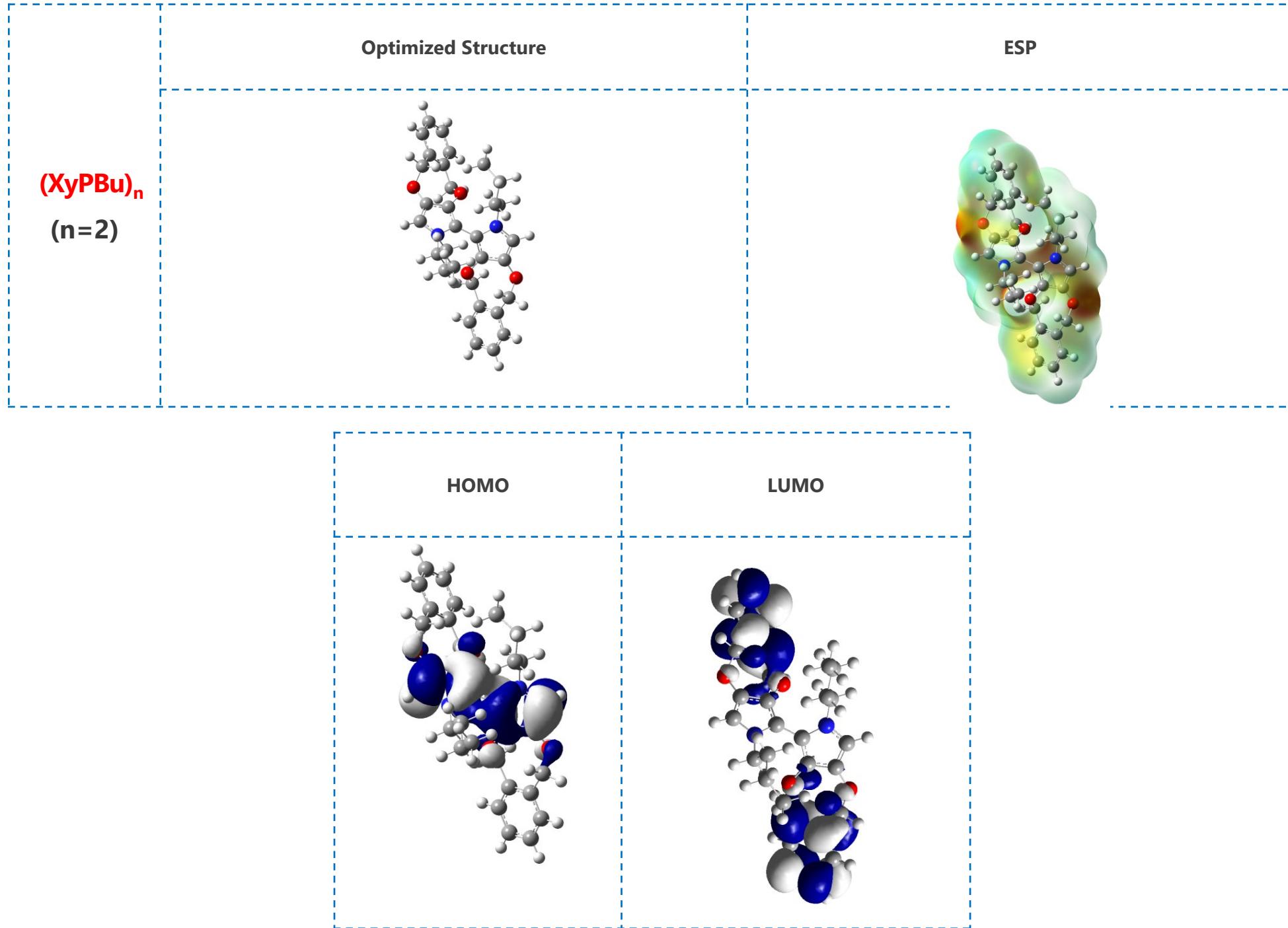


Figure S18-3 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPBu-trimer

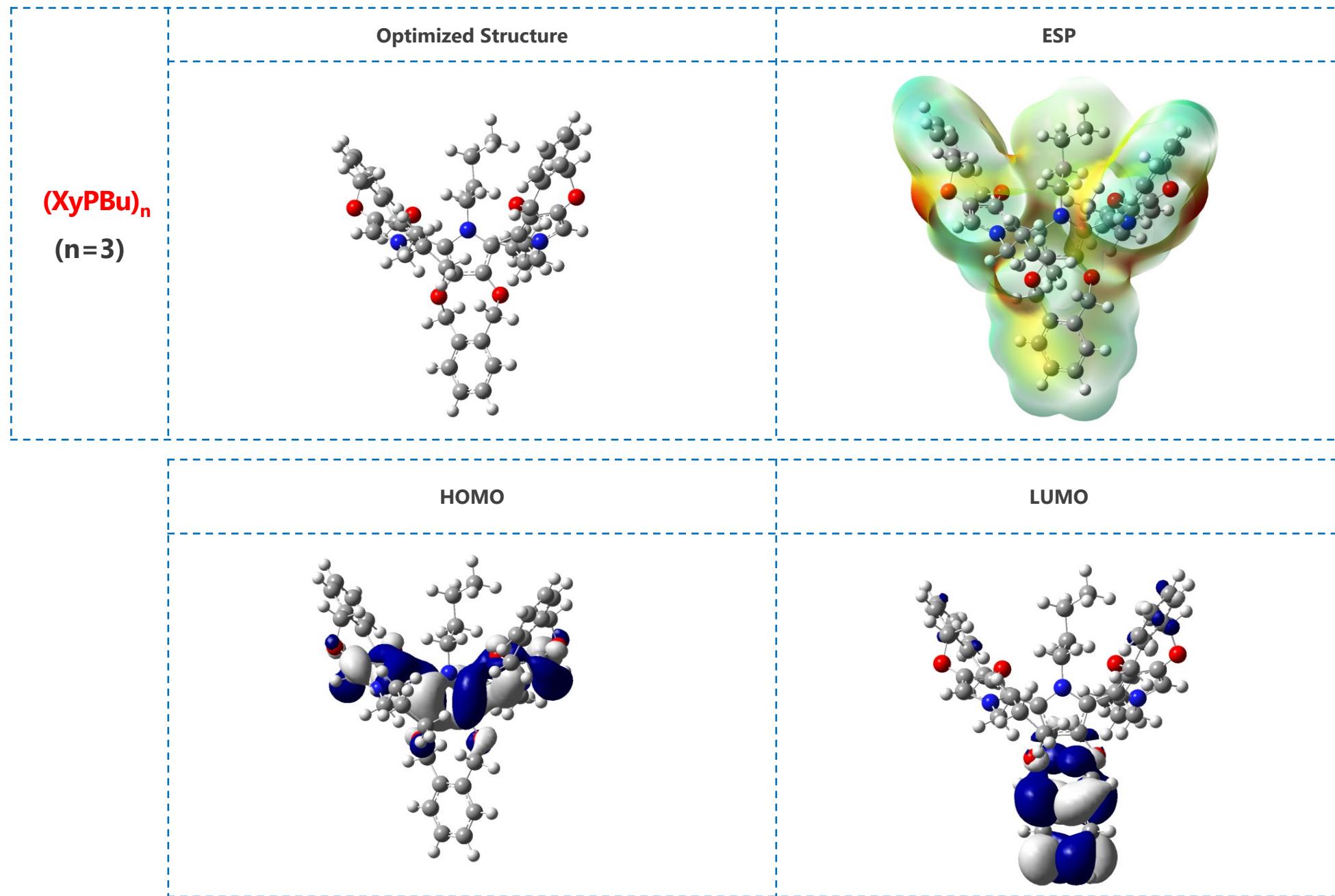
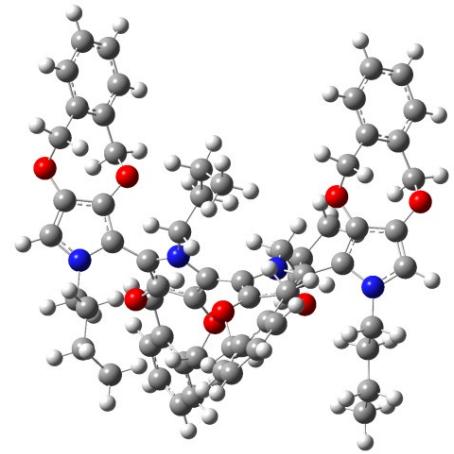


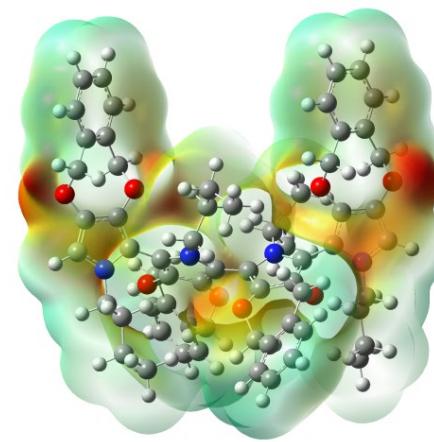
Figure S18-4 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPBu-tetramer

$(\text{XyPBu})_n$
 $(n=4)$

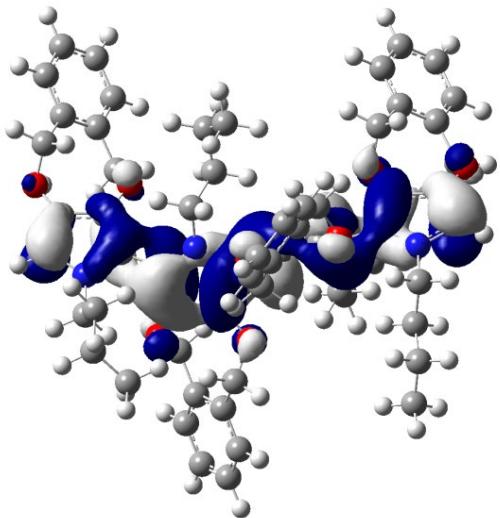
Optimized Structure



ESP



HOMO



LUMO

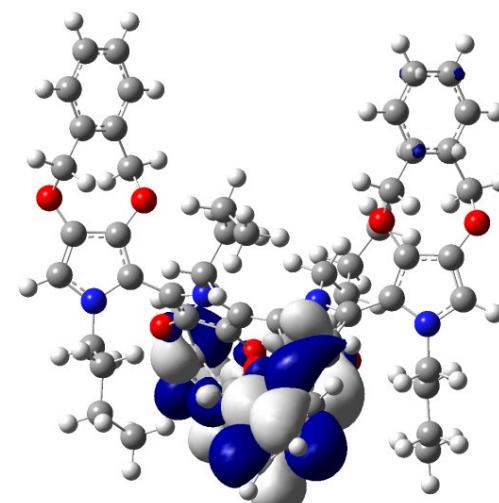
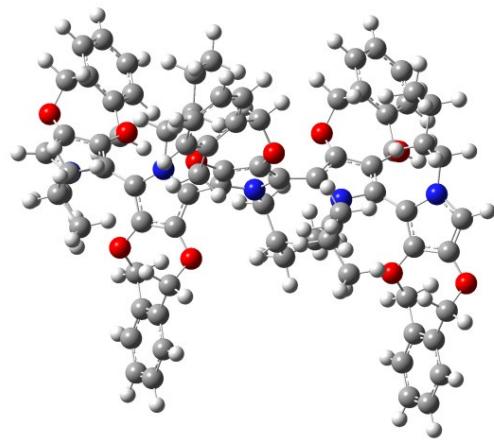


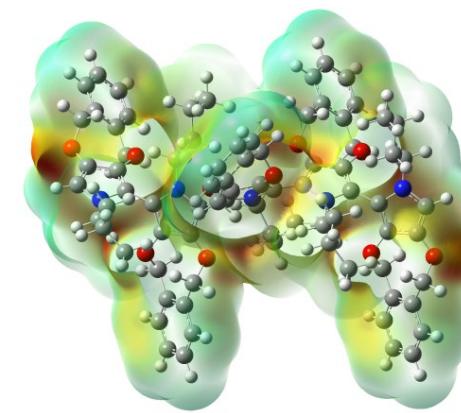
Figure S18-5 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPBu-pentamer

$(\text{XyPBu})_n$
 $(n=5)$

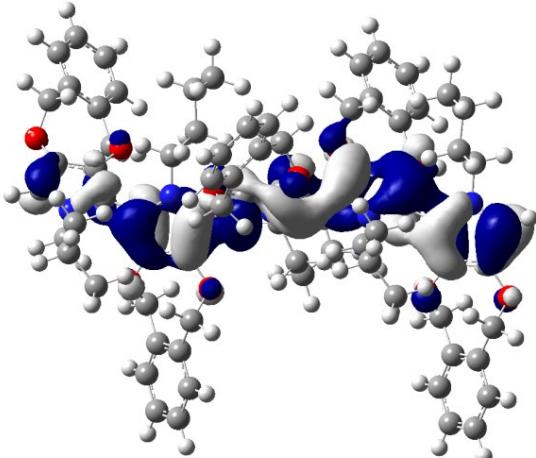
Optimized Structure



ESP



HOMO



LUMO

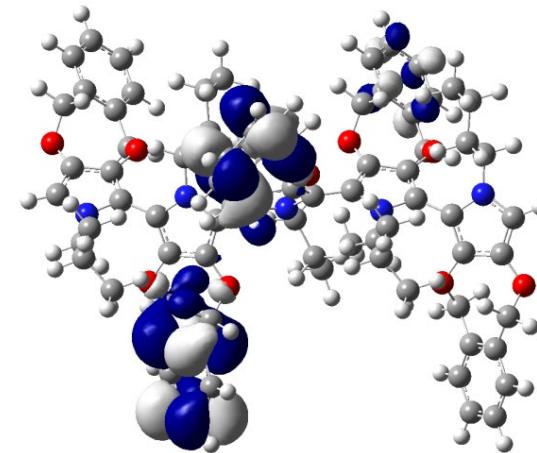
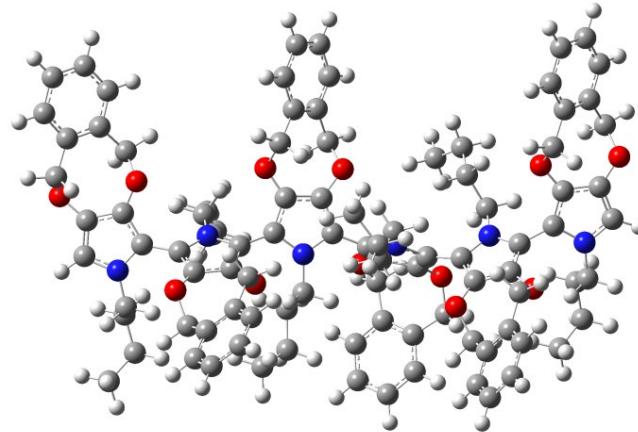


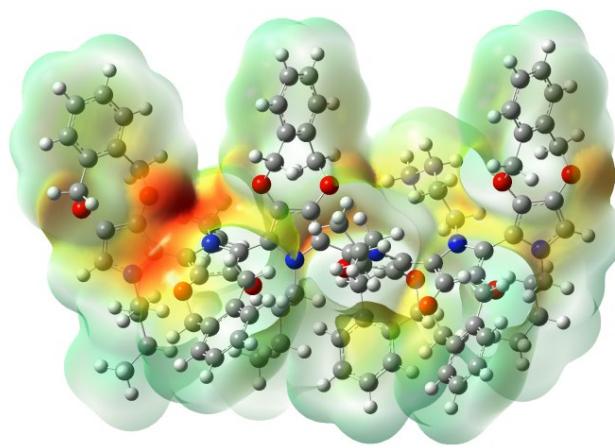
Figure S18-6 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPBu-hexamer

$(\text{XyPBu})_n$
 $(n=6)$

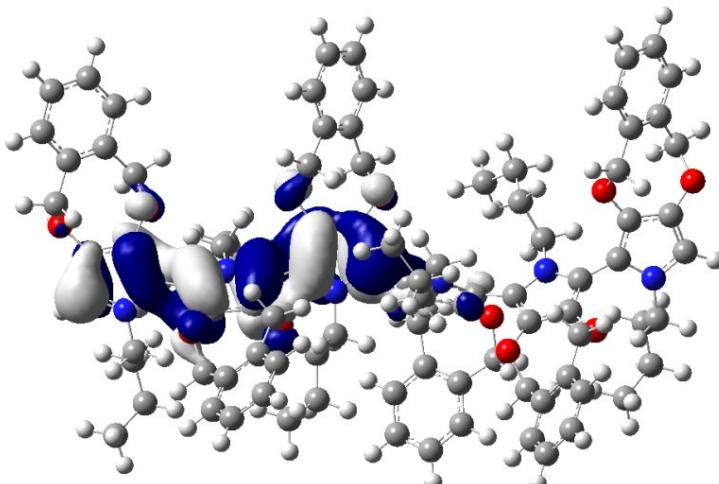
Optimized Structure



ESP



HOMO



LUMO

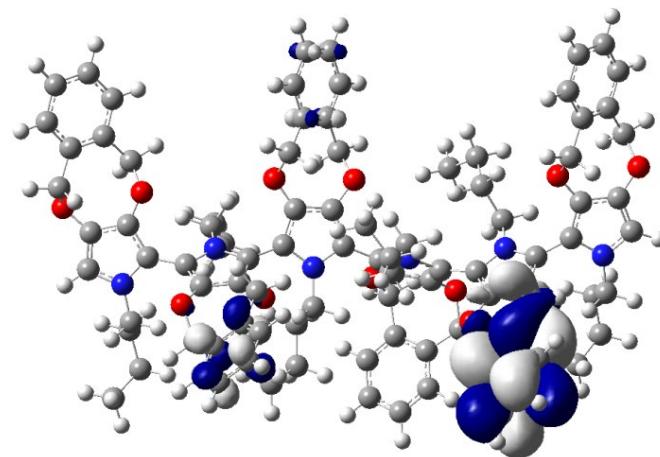
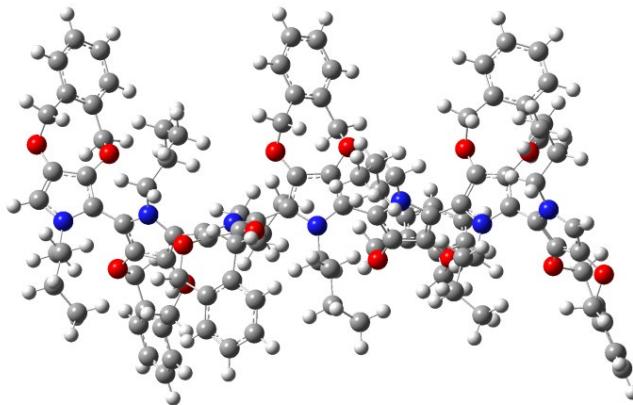


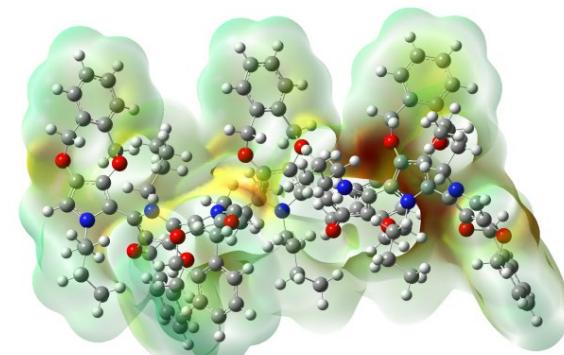
Figure S18-7 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPBu-heptamer

$(\text{XyPBu})_n$
 $(n=7)$

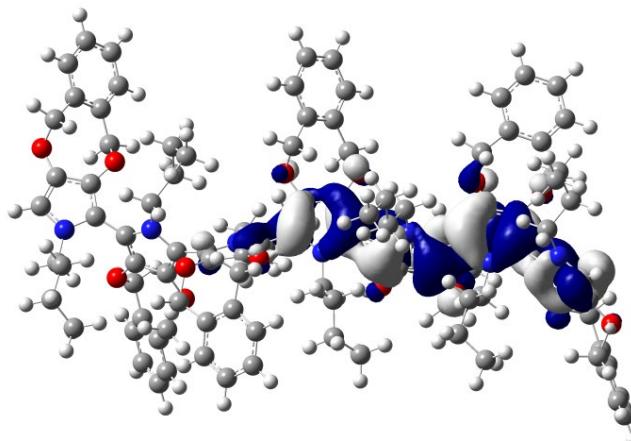
Optimized Structure



ESP



HOMO



LUMO

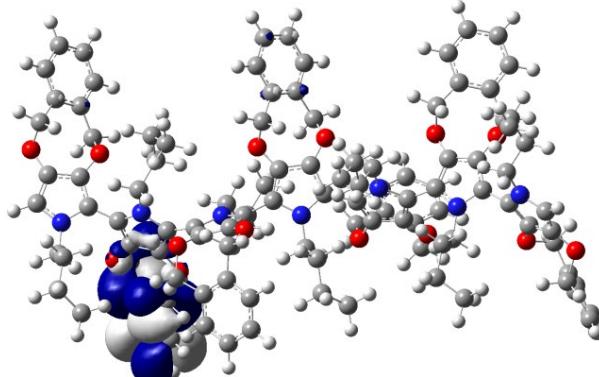


Figure S18-8 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPBu-octamer

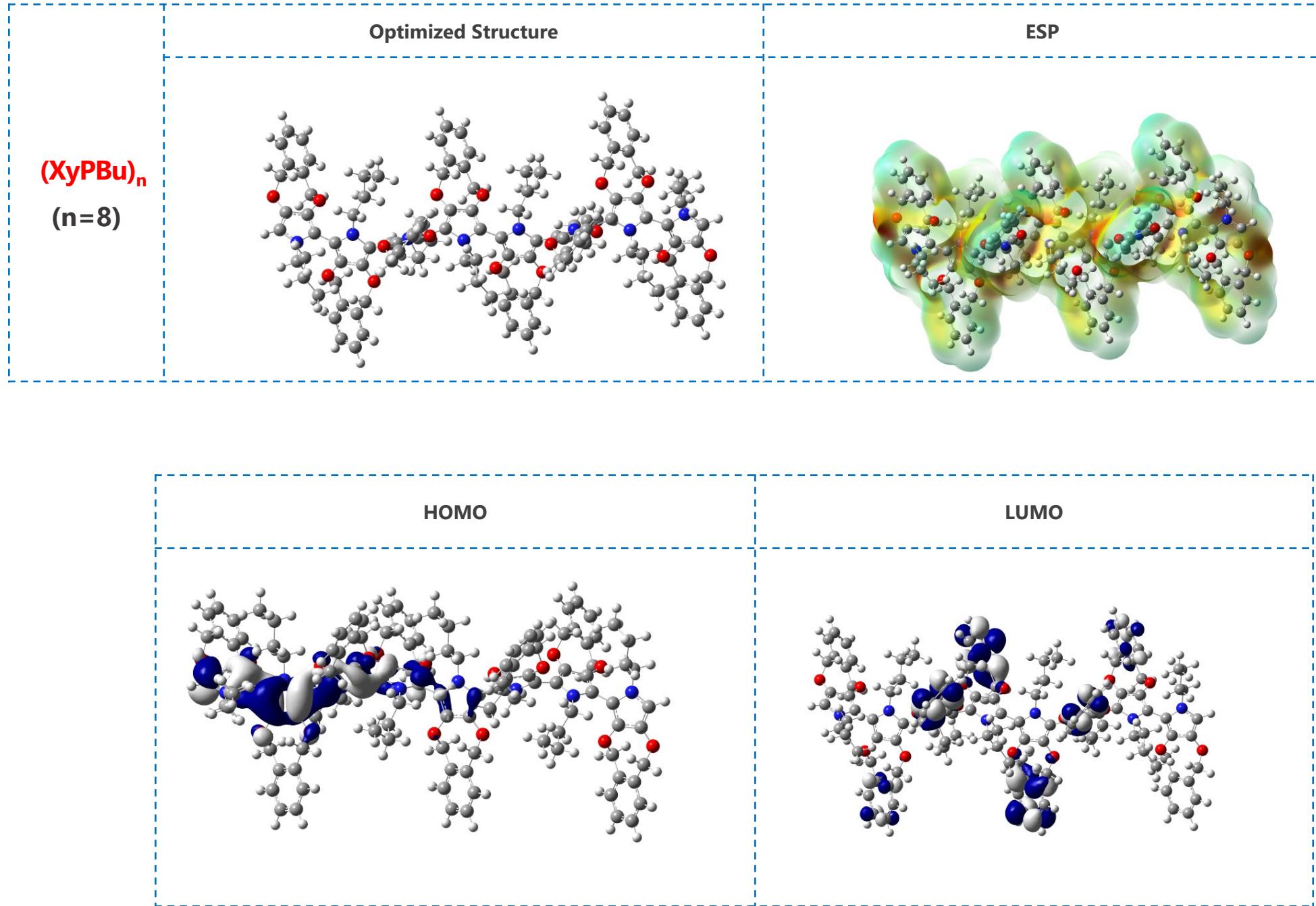


Figure S18-9 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPBu-nonamer

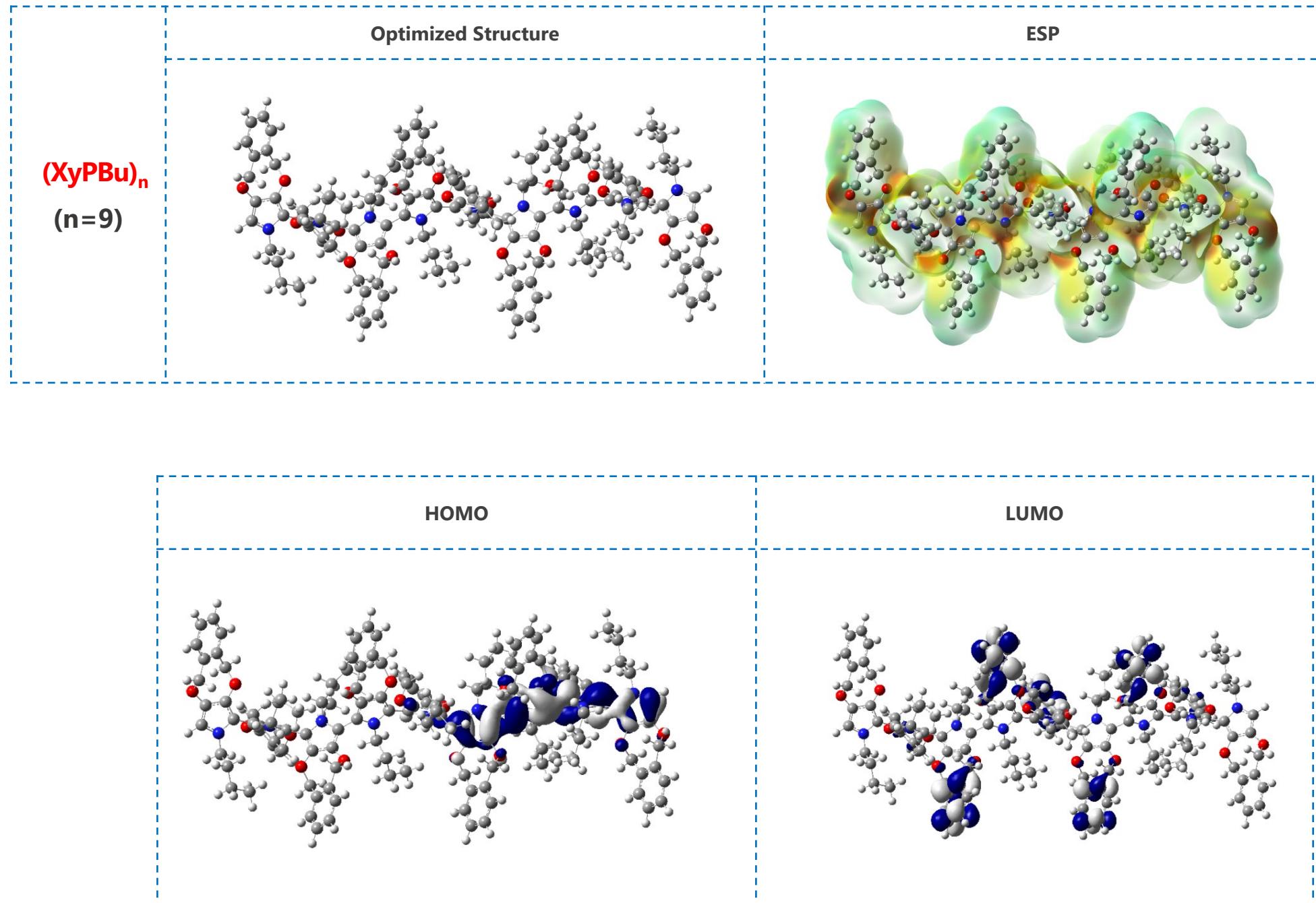


Figure S18-10 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPBu-decamer

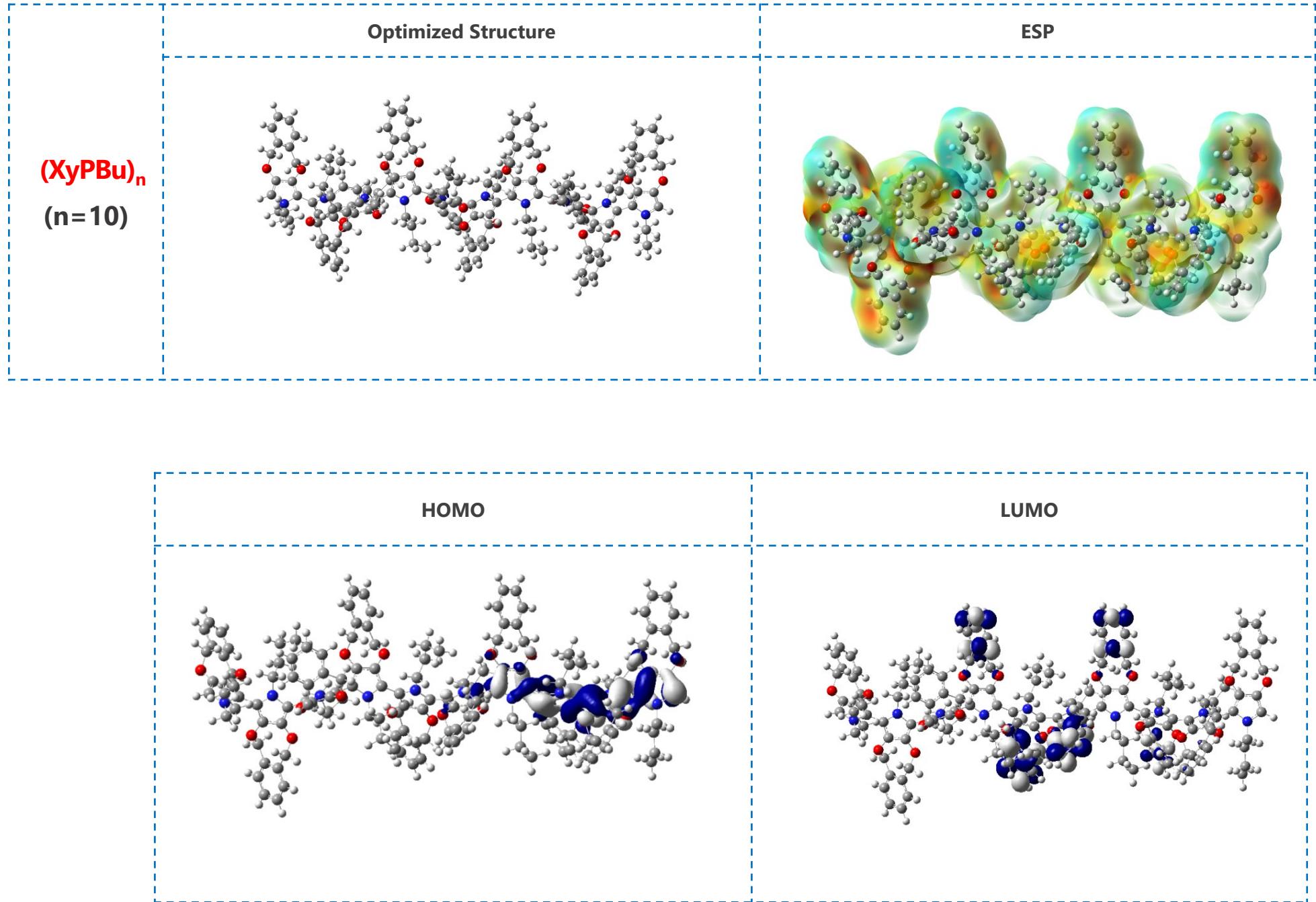


Figure S18-11 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyPBu-undecamer

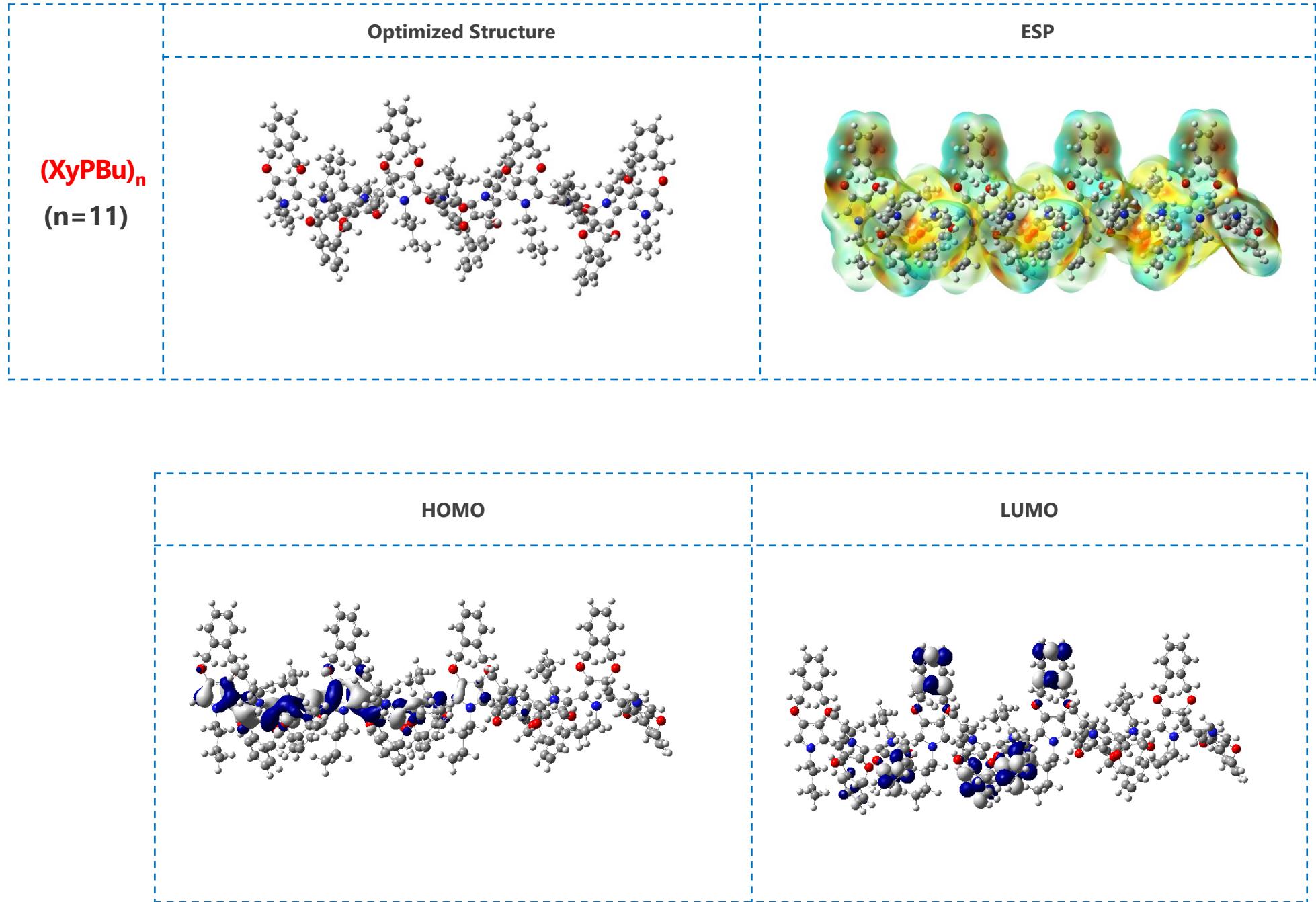


Figure S19-1 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyT-monomer

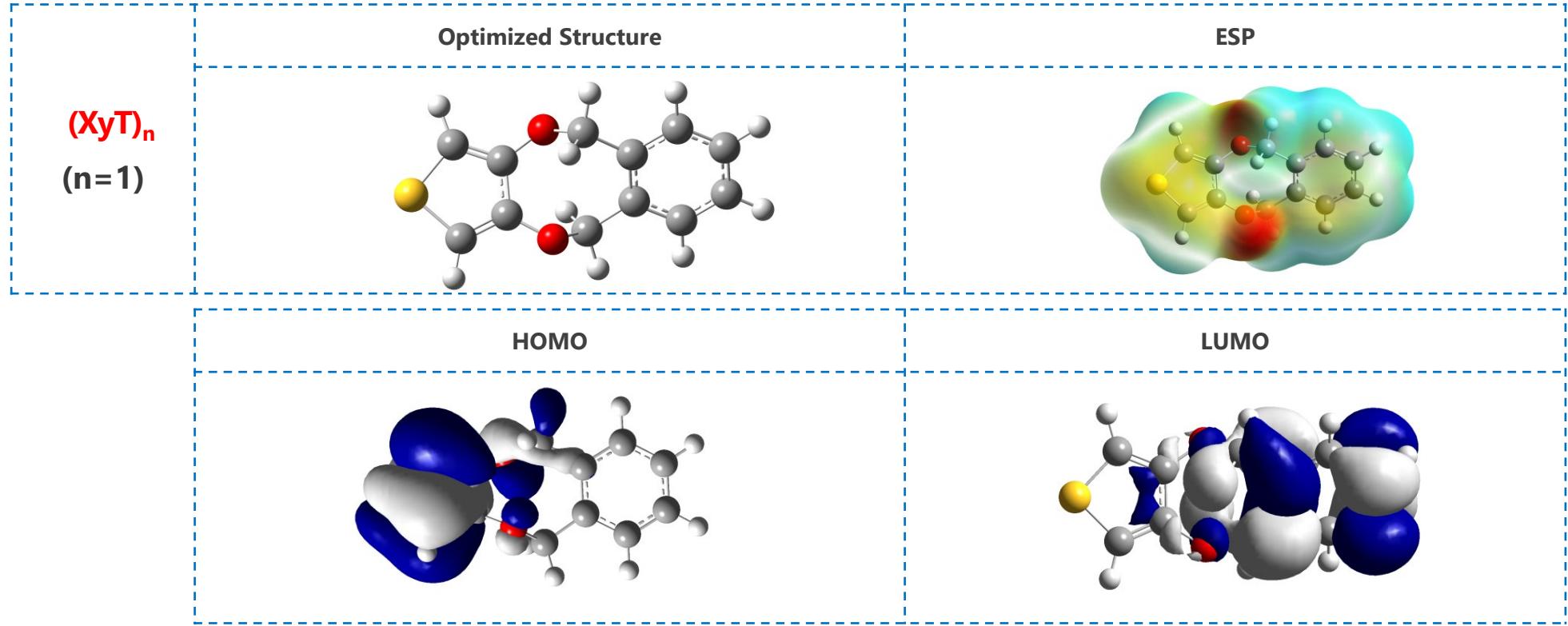


Figure S19-2 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyT-dimer

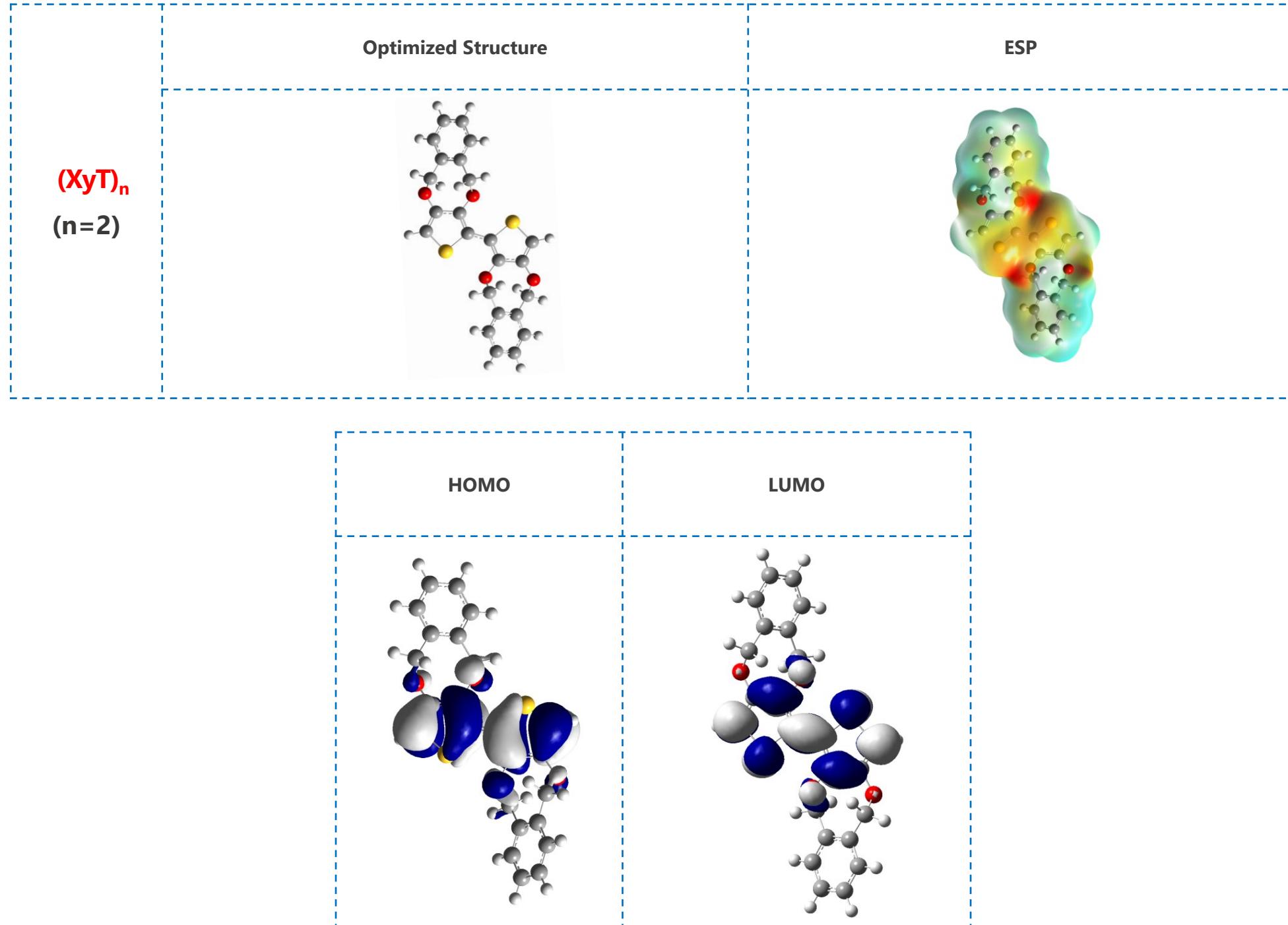


Figure S19-3 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyT-trimer

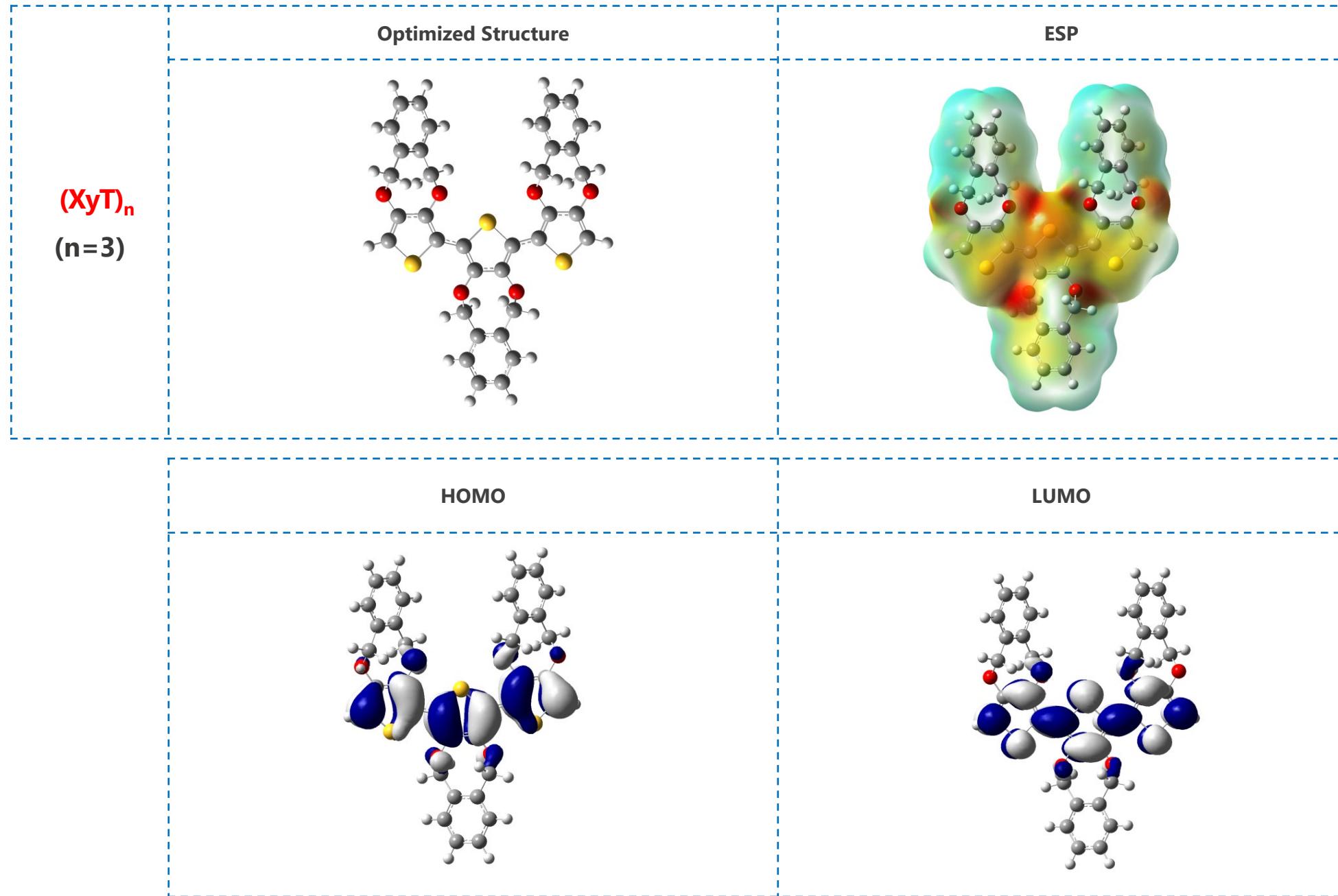


Figure S19-4 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyT-tetramer

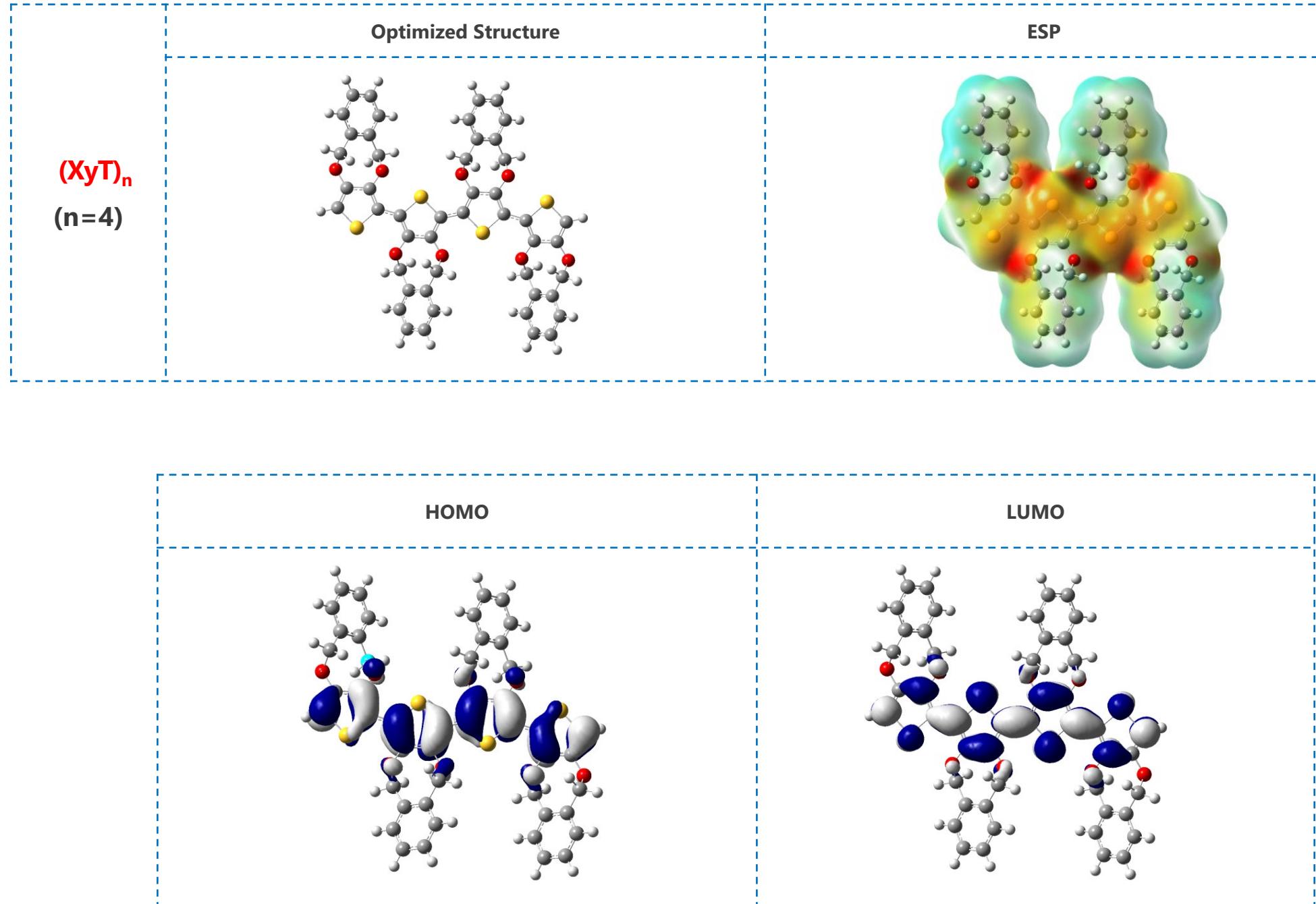


Figure S19-5 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyT-pentamer

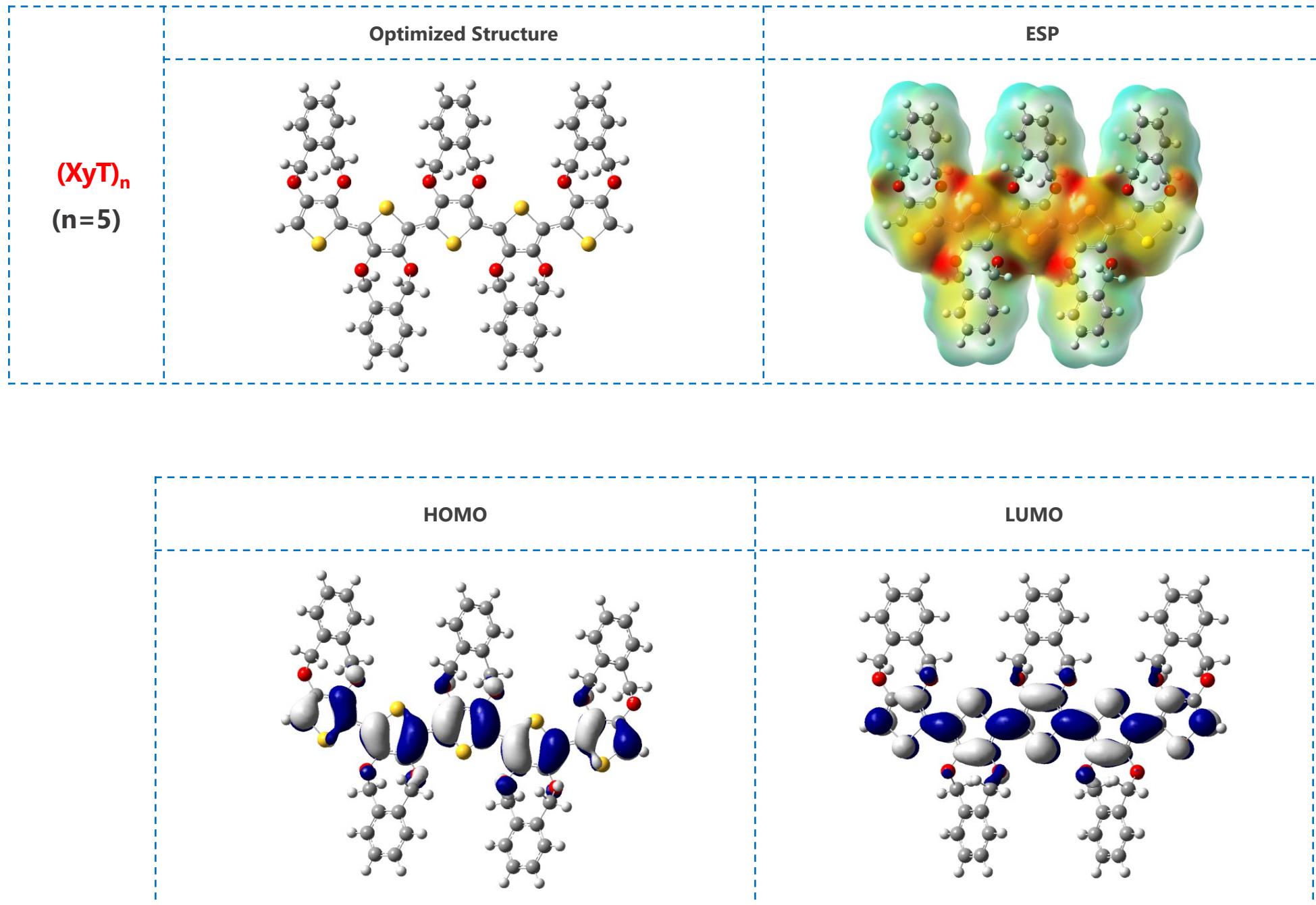


Figure S19-6 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyT-hexamer

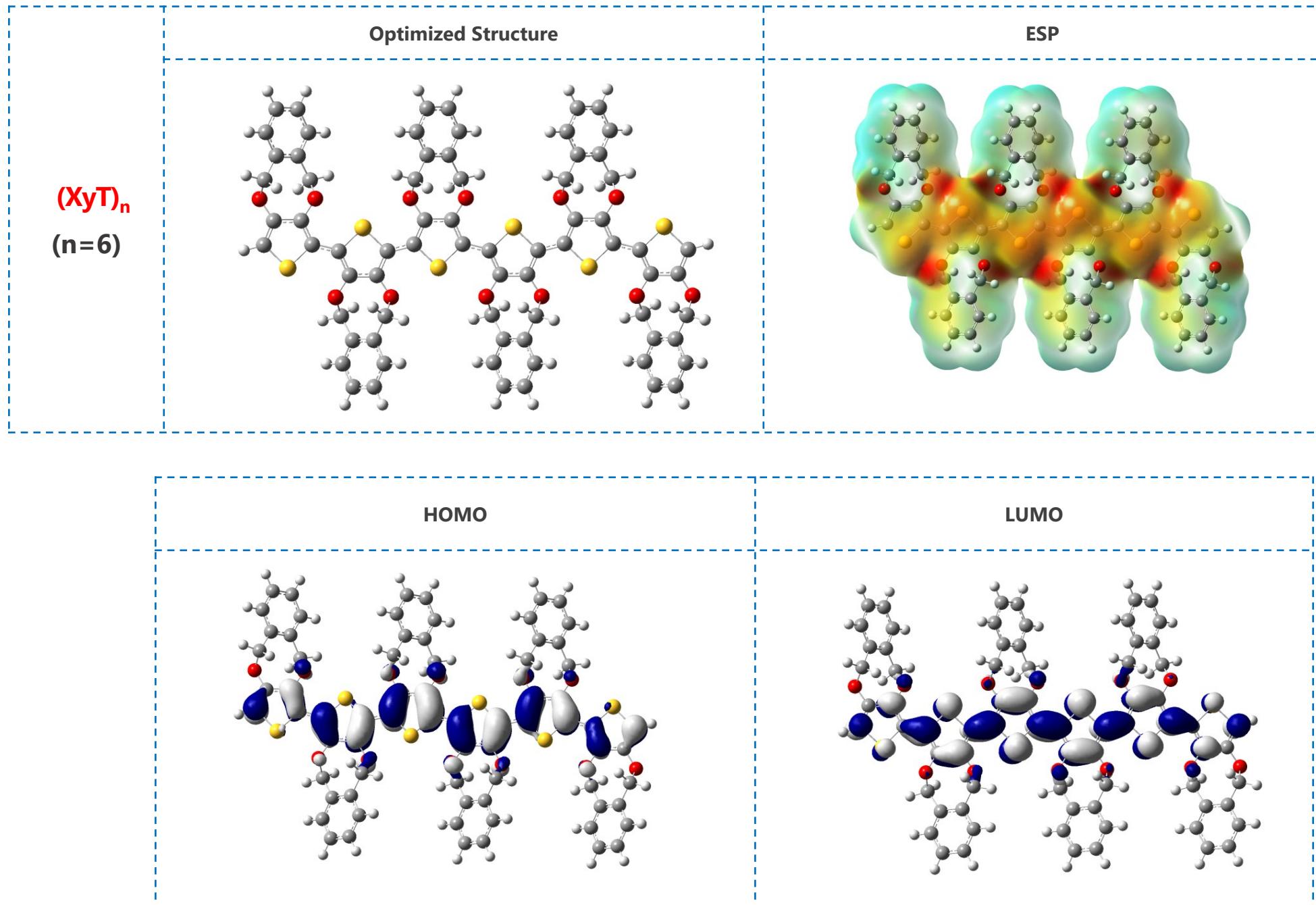


Figure S19-7 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyT-heptamer

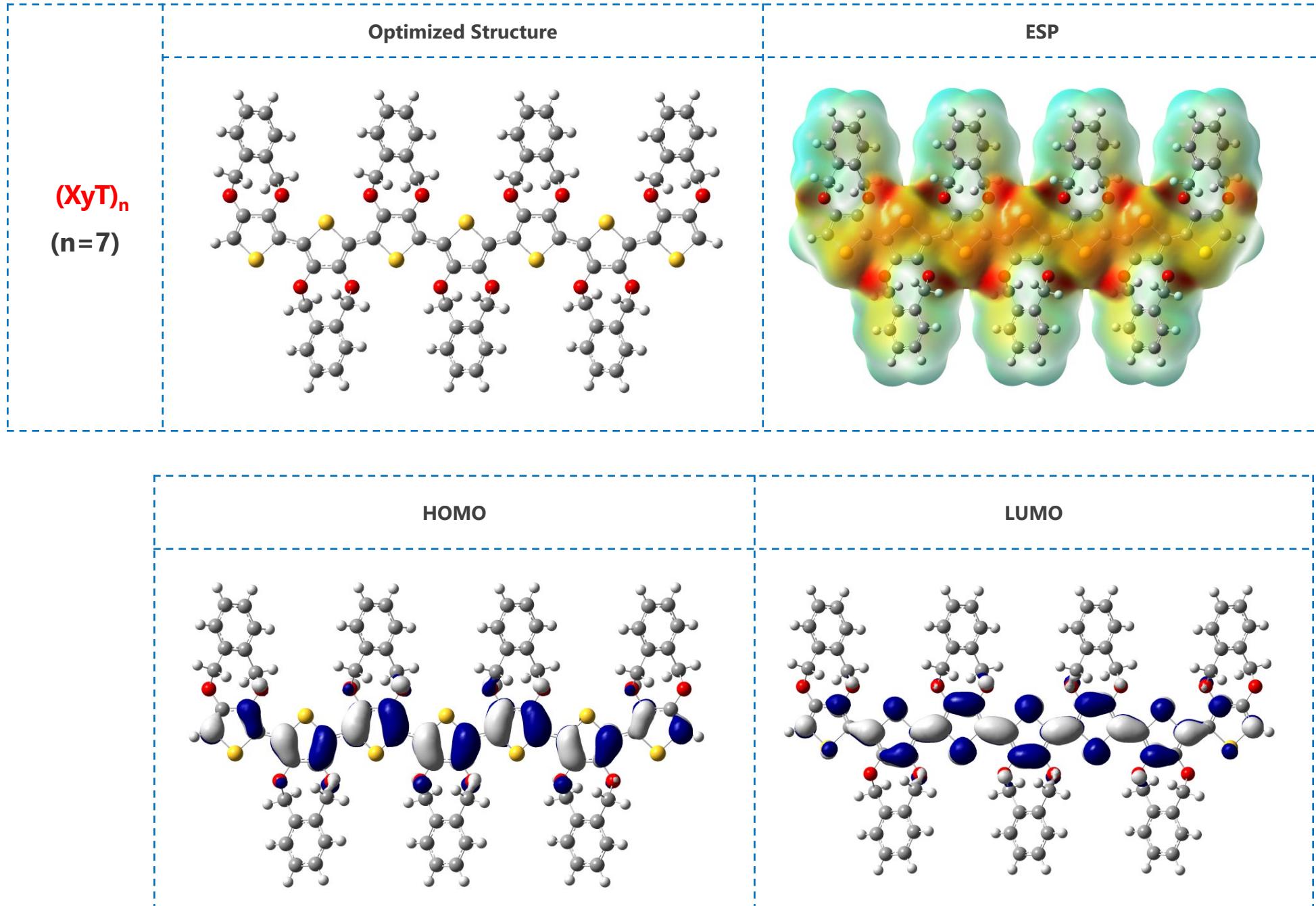


Figure S19-8 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyT-octamer

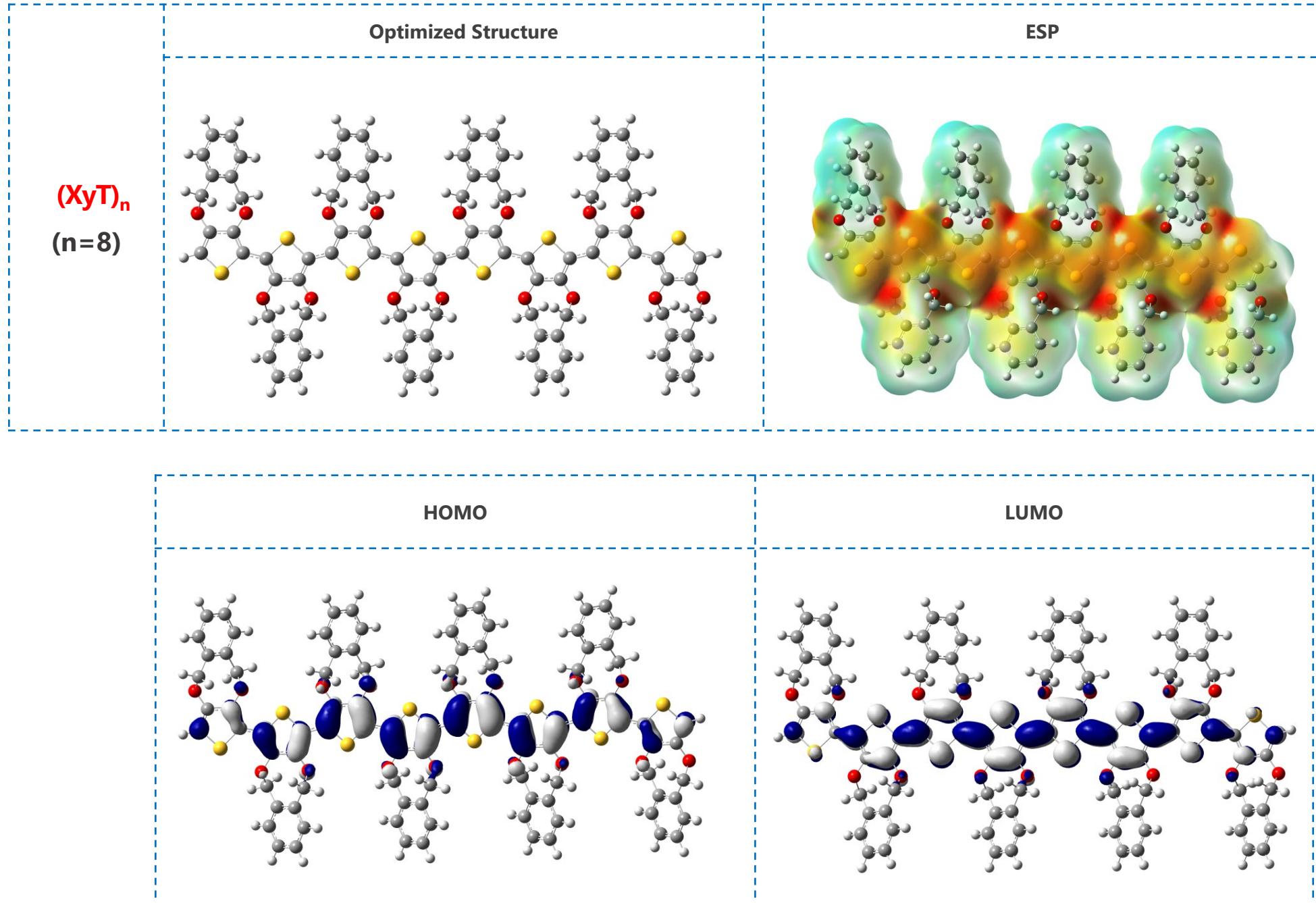


Figure S19-9 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyT-nanomer

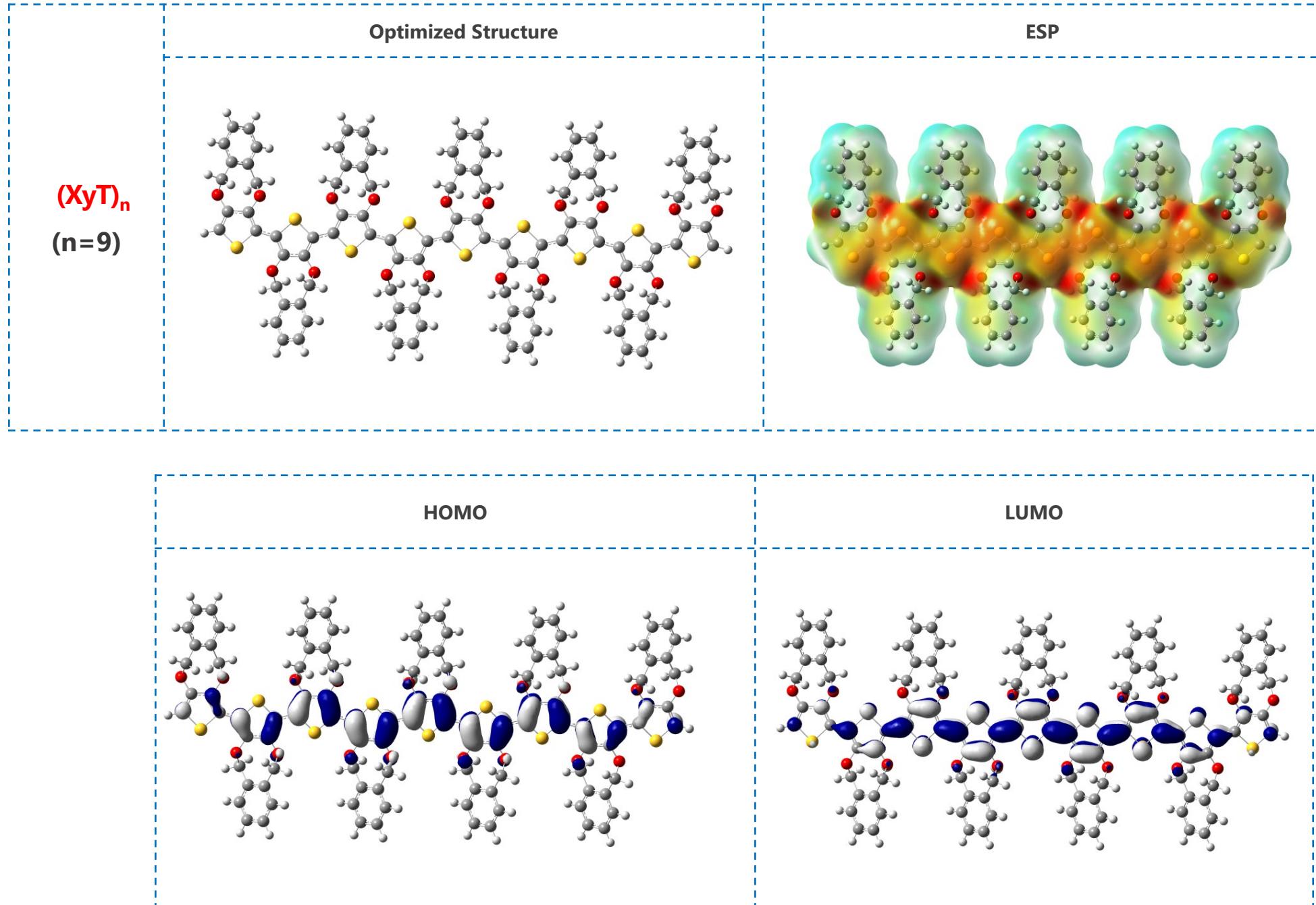


Figure S19-10 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyT-decamer

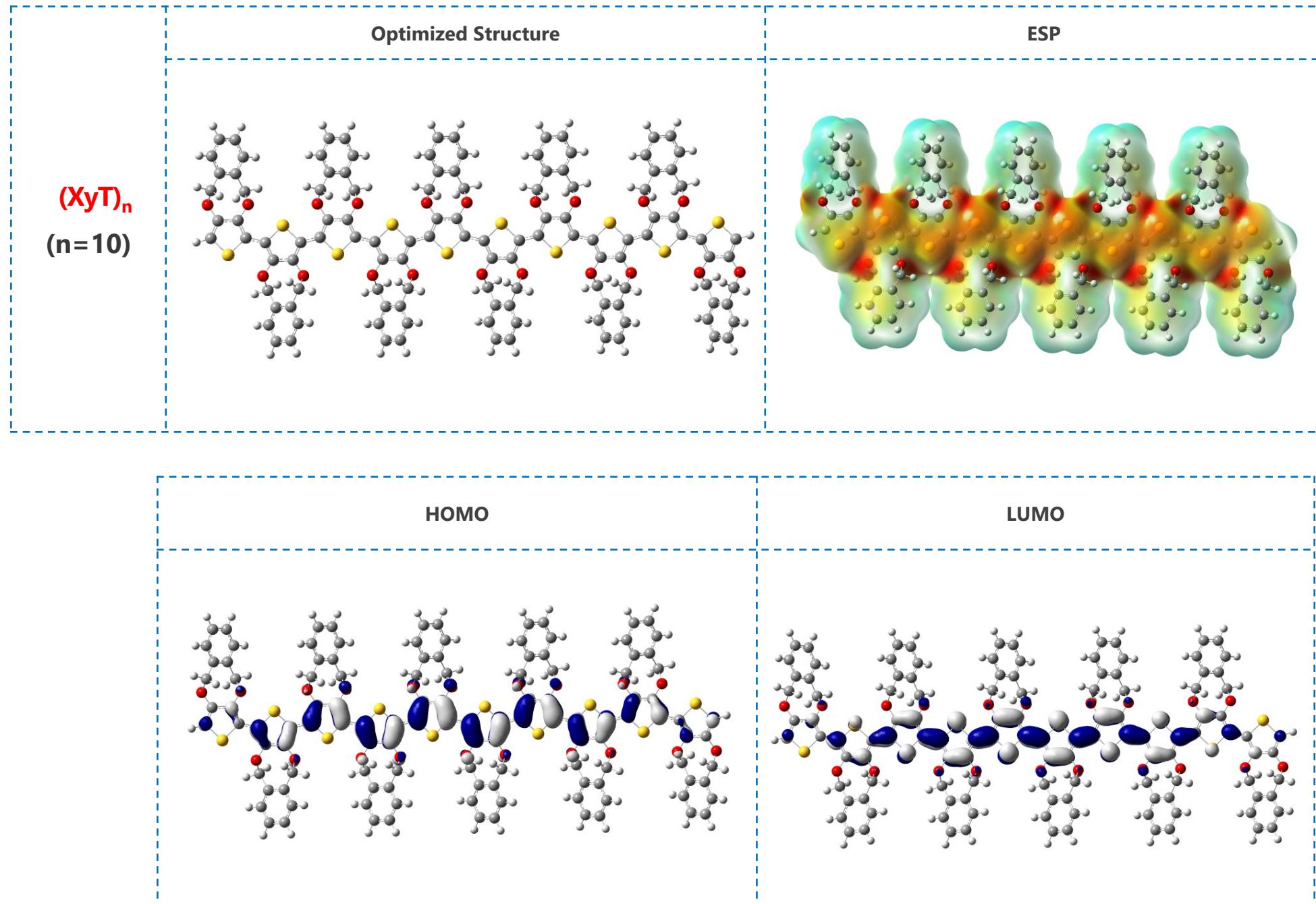


Figure S19-11 Optimized Structure, HOMO-LUMO contour plots and ESP map of the XyT-undecamer

