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Appendix Figure

ABBREVIATIONS

E_{ex}	=	Excitation energy
f	=	Oscillator strength
AM1	=	Semiempirical austin model 1
B3LYP	=	Becke 's three parameter hybrid functional using the LYP Correlation functional
BH&HLYP	=	Half-and-half functionals $0.5*E_X^{HF} + 0.5*E_X^{LSDA} + 0.5*\Delta E_X^{Becke88} + E_C^{LYP}$
CASPT2	=	Second-order perturbation theory
CASSCF	=	Complete active space self-consistent field
CC	=	Couple cluster
CCSD	=	Singles and doubles couple cluster
CIS	=	Singles configuration interaction
CISD	=	Singles and doubles configuration interaction
CISDT	=	Singles, doubles and triples configuration interaction
CISDTQ	=	Singles, doubles, triples and quadruples configuration Interaction
$(Cz)_N$	=	Carbazole oligomers
$(Cz\text{-}co\text{-}F)_N$	=	Carbazole combined with furan oligomers
$(Cz\text{-}co\text{-}Fl)_N$	=	Carbazole combined with fluorine oligomers
$(Cz\text{-}co\text{-}P)_N$	=	Carbazole combined with phenyl oligomers
$(Cz\text{-}co\text{-}Th)_N$	=	Carbazole combined with thiophene oligomers
$(DBZF)_N$	=	Dibenzofuran oligomers
$(DBZTh)_N$	=	Dibenzothiophene oligomers
DFT	=	Density functional theory
E_g	=	Energy gap
$-\varepsilon_{HOMO}$ =	=	Negative of HOMO energies
$(FL)_N$	=	Fluorene oligomers
$\Delta_{H\text{-}L}$	=	HOMO-LUMO gaps
HF	=	Hartree Fock theory
HOMO	=	Highest occupied molecular orbital
INDO/s	=	Intermediate neglect of differential overlap

LEDs	=	Light-emitting diodes
LUMO	=	Lowest unoccupied molecular orbital
MRCI	=	Multireference configuration interaction
MO	=	Molecular orbital
OLED	=	Organic light emitting diode
PA	=	Polyacetylene
PLEDs	=	Polymer light-emitting diodes
PPP	=	Poly(para-phenylene)
PPV	=	Poly(para-phenylenevinylene)
RPA	=	Random-phase approximation
RCIS	=	Restricted configuration interaction
RHF	=	Restricted Hartree-Fock
S_0	=	Ground state
S_1	=	First excited state
S_2	=	Second excited state
S_3	=	Third excited state
$S_0 \rightarrow S_1$	=	Absorption transition
$S_1 \rightarrow S_0$	=	Fluorescence transition
SAC	=	Symmetry adapted cluster
SAC-CI	=	Symmetry adapted cluster-configuration interaction
TD-DFT	=	Time-dependent density functional theory
wf	=	Wave function composition
ZINDO	=	Zerner ’s intermediate neglect differential overlap