Supplementary material (ESI) for Journal of Materials Chemistry
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Supplementary data

Exceedingly Efficient Deep-Blue Electroluminescence from New Anthracenes Obtained using Rational Molecular Design†

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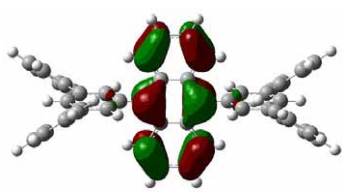
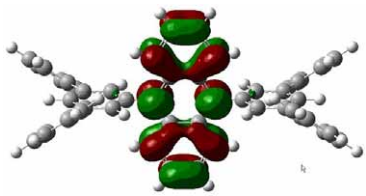
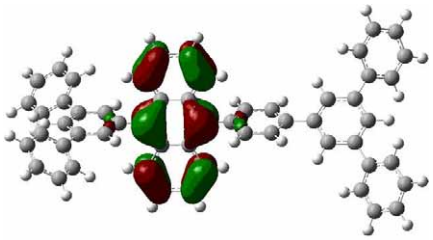
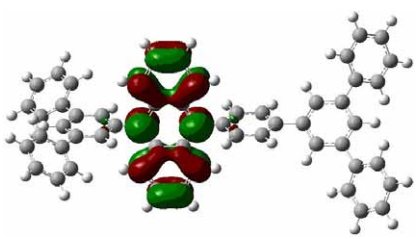
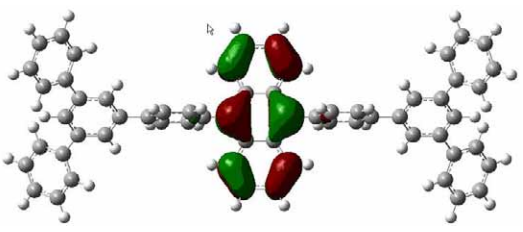
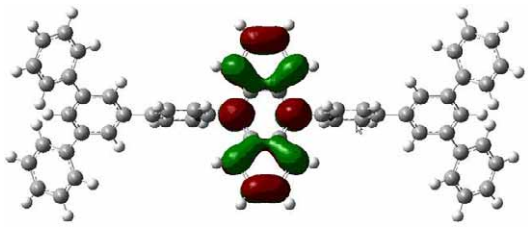
	HOMO	LUMO
a)MAM		
b)MAT		
c)TAT		

Figure S1. HOMO and LUMO levels of a) MAM, b) MAT and c) TAT calculated at the DFT/B3LYP/6-31G* for optimization and Time Dependent DFT (TDDFT) using Gaussian 03.

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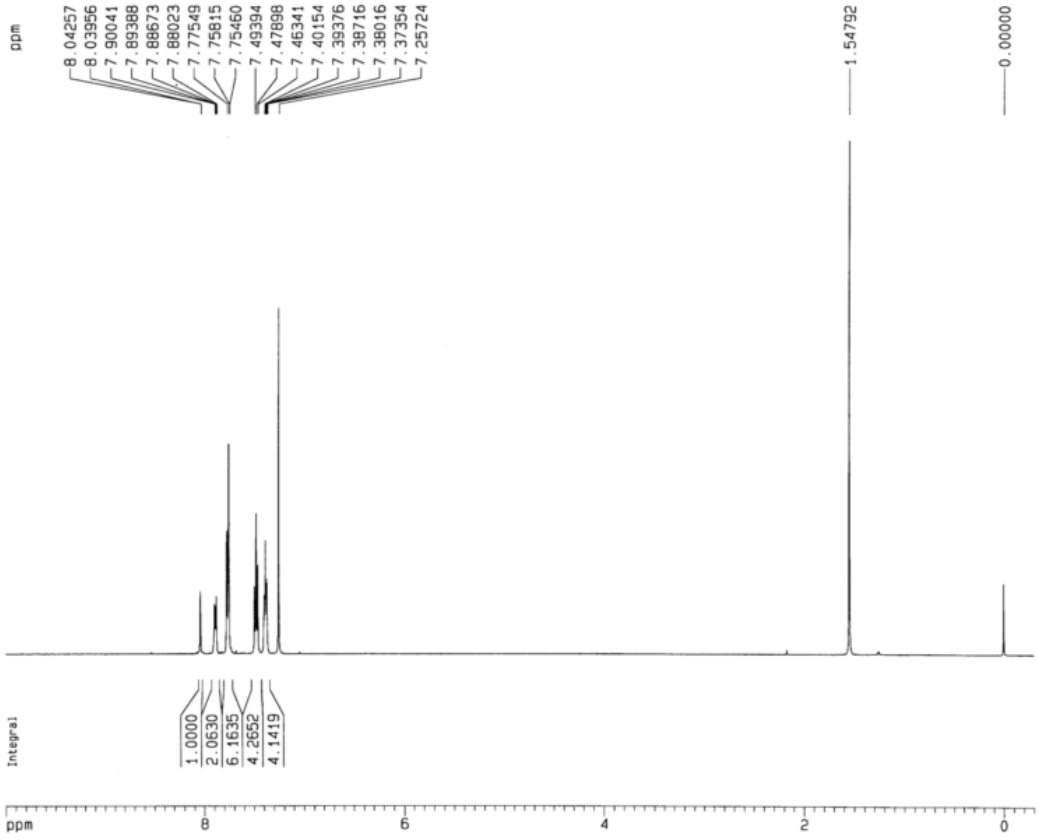

Figure S2. ^{1}H NMR spectrum of MAM (500 MHz, $CDCl_3$).

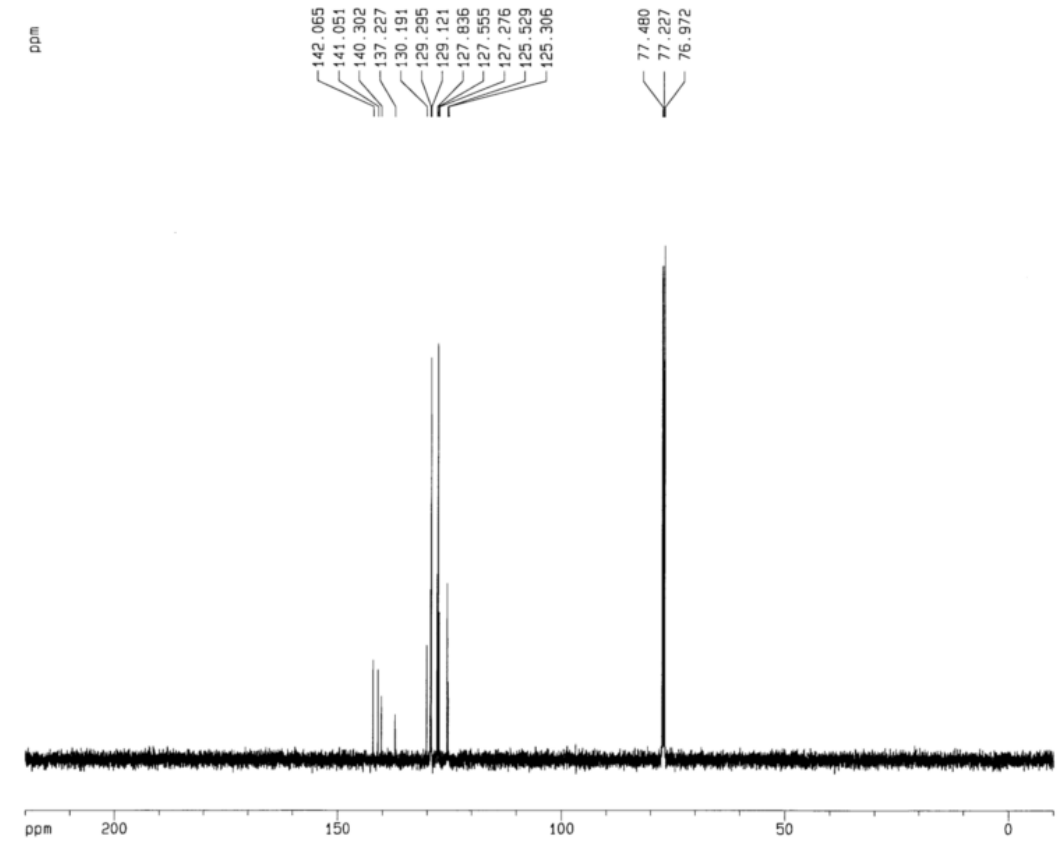

Figure S3. ^{13}C NMR spectrum of MAM (500 MHz, $CDCl_3$).

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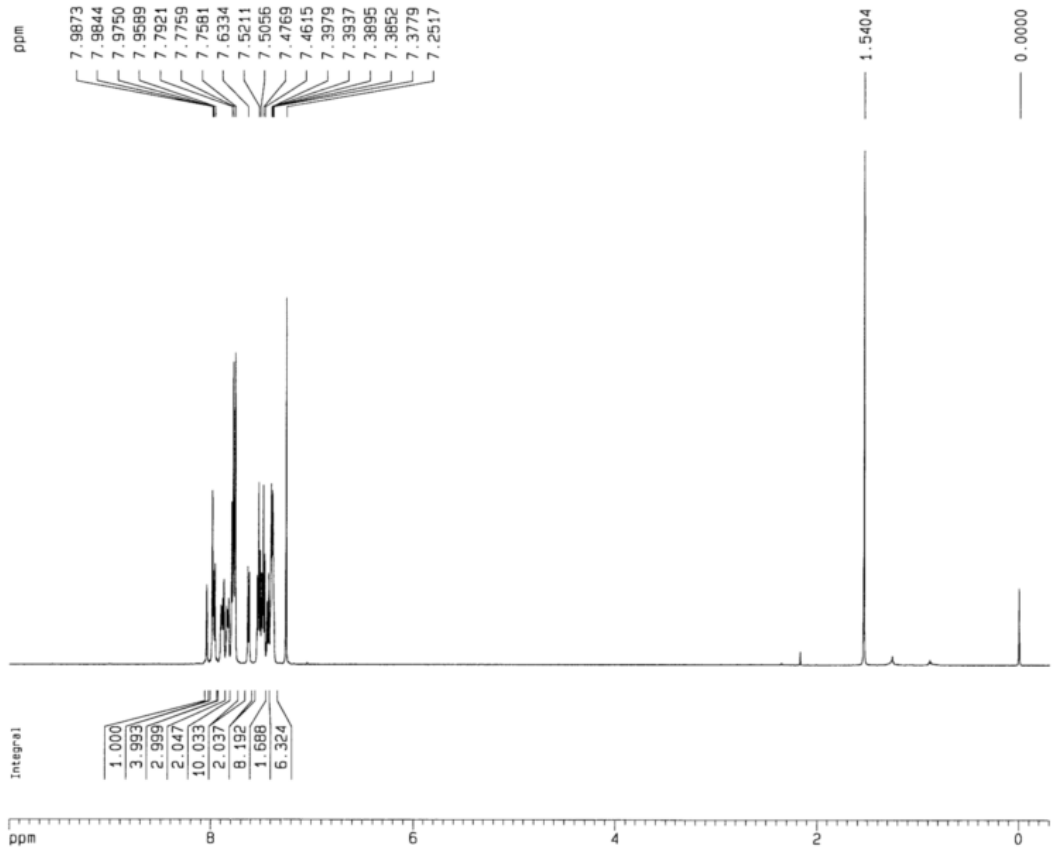

Figure S4. ^{1}H NMR spectrum of MAT (500 MHz, $CDCl_3$).

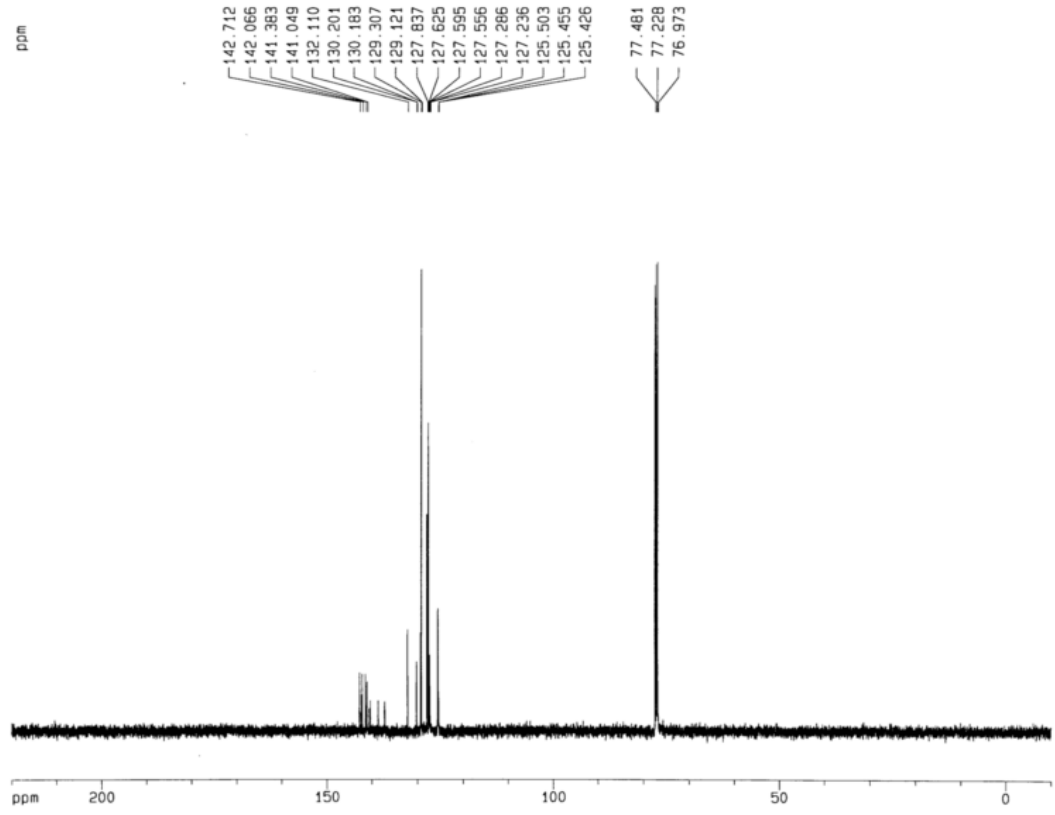

Figure S5. ^{13}C NMR spectrum of MAT (500 MHz, $CDCl_3$).

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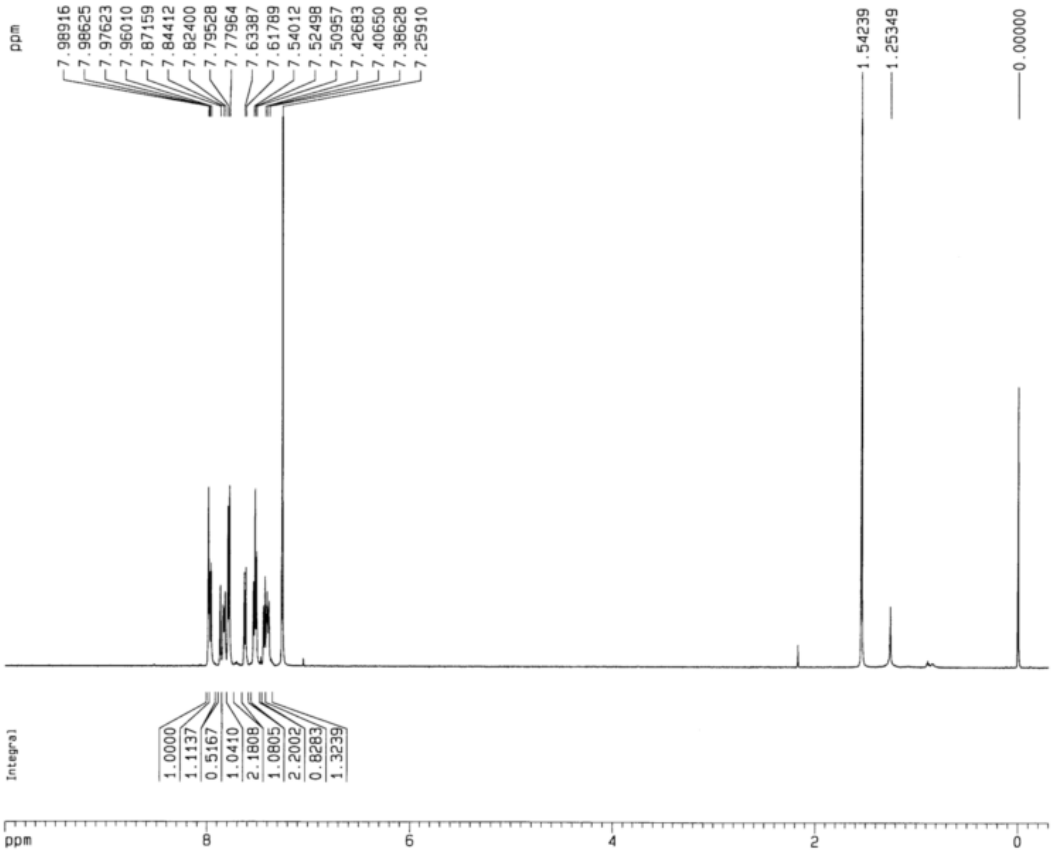

Figure S6. ^{1}H NMR spectrum of TAT (500 MHz, $CDCl_3$).

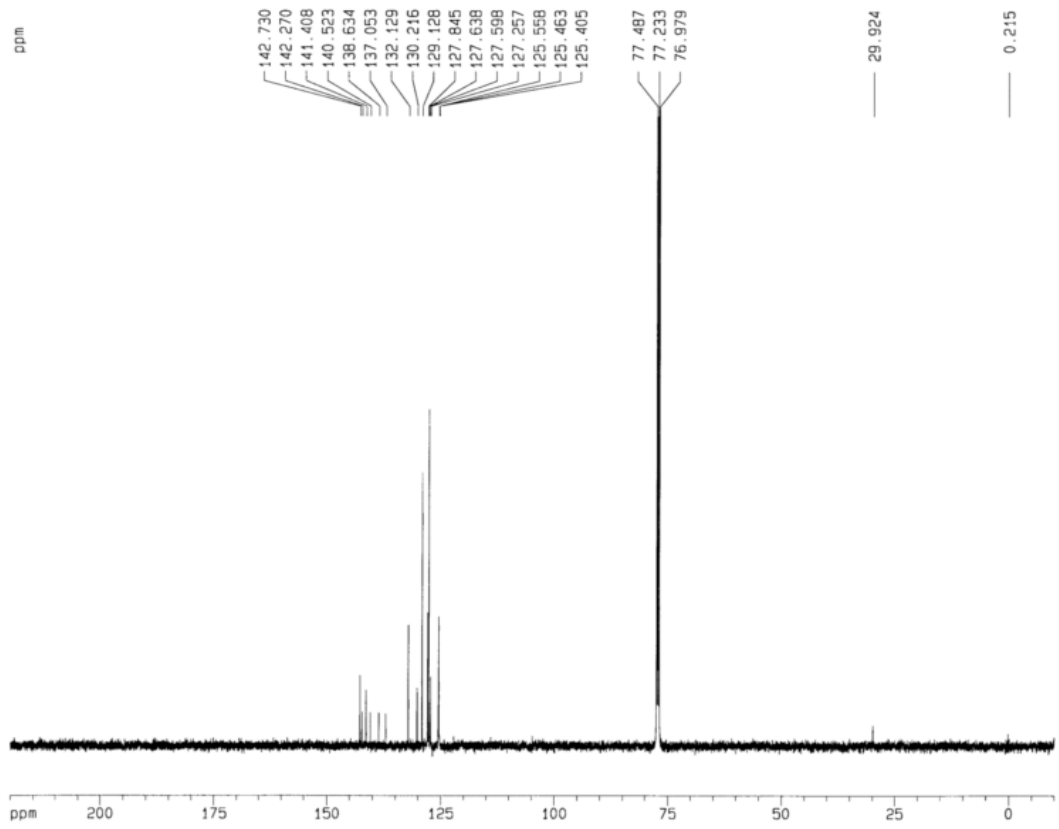

Figure S7. ^{13}C NMR spectrum of TAT (500 MHz, $CDCl_3$).

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Table S1. $CIE_{x,y}$ values of EL devices according to synthesized compounds and current densities.

	MAM	MAT	TAT	MADN
10mA/cm^2	0.163, 0.124	0.156, 0.085	0.156, 0.088	0.171, 0.138
25mA/cm^2	0.162, 0.120	0.156, 0.085	0.156, 0.089	0.169, 0.130
50mA/cm^2	0.161, 0.118	0.156, 0.084	0.156, 0.089	0.167, 0.124
100mA/cm^2	0.160, 0.111	0.156, 0.082	0.156, 0.089	0.166, 0.120