Supporting Information

Synthesis and Photophysics of Reverse Saturable Absorbing Heteroleptic Iridium(III) Complexes Bearing 2-(7-R-Fluoren-2'-yl)pyridine Ligands

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Table S1. Optimized geometries of the singlet and triplet ground states of **1-3** in toluene.

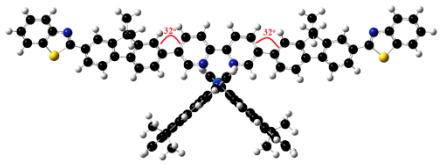
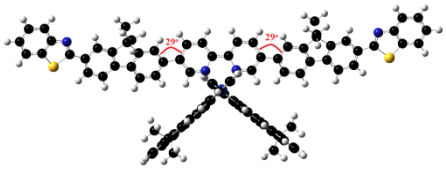
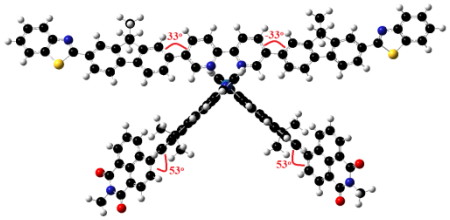
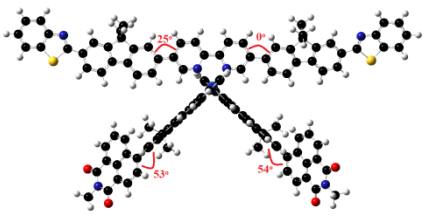
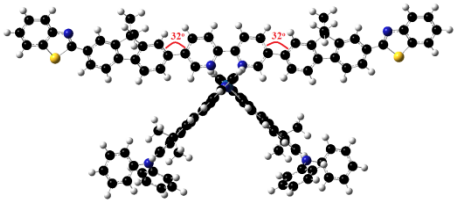
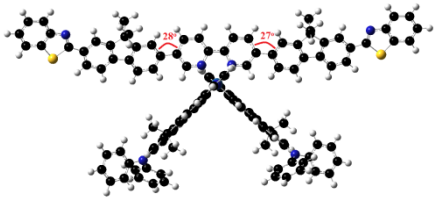
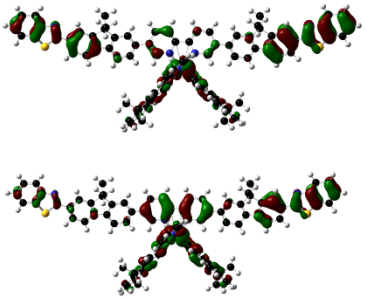
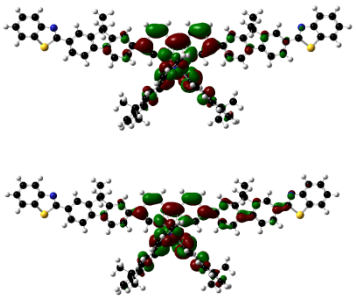
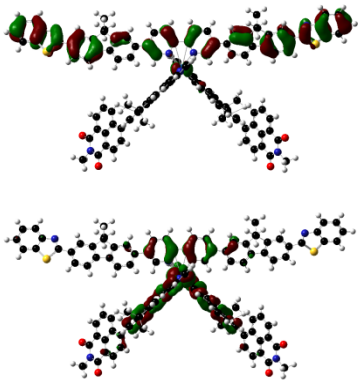
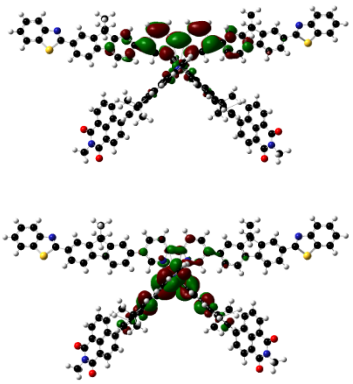
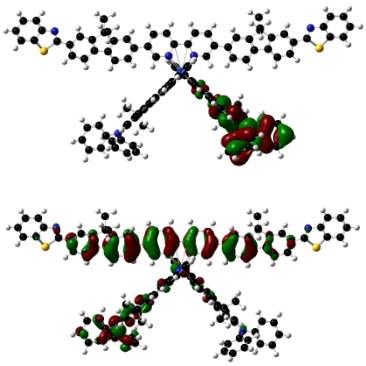
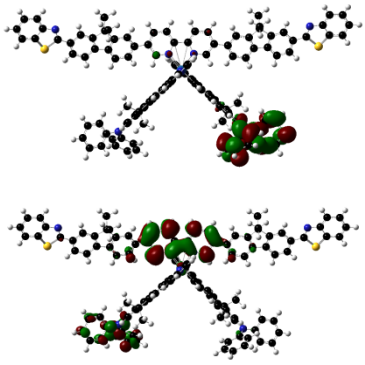
	Singlet	Triplet
1		
2		
3		

Table S2. Natural transition orbitals (NTOs) representing transitions contributing to the high-energy absorption bands of **1-3** in toluene.

	Excited state and properties	**Holes**	**Electrons**
1	28th excited state 264 nm f = 0.30		
2	33rd excited state 265 nm f = 0.37		
3	30th excited state 273 nm f = 0.35		

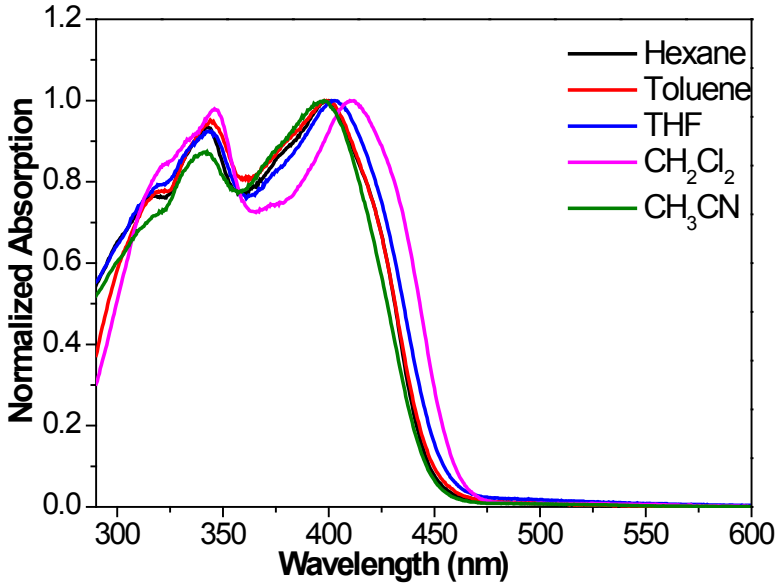


Figure S1. Normalized UV-vis absorption spectra of **1** in different solvents.

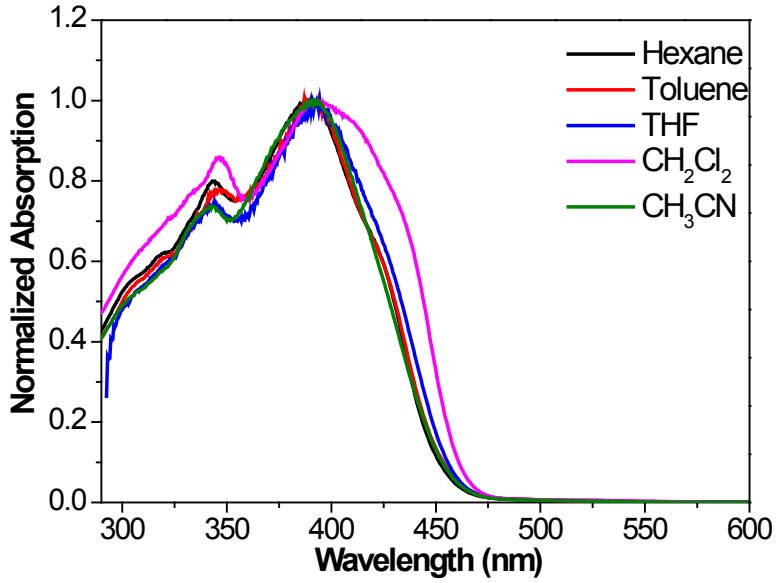


Figure S2. Normalized UV-vis absorption spectra of **2** in different solvents.

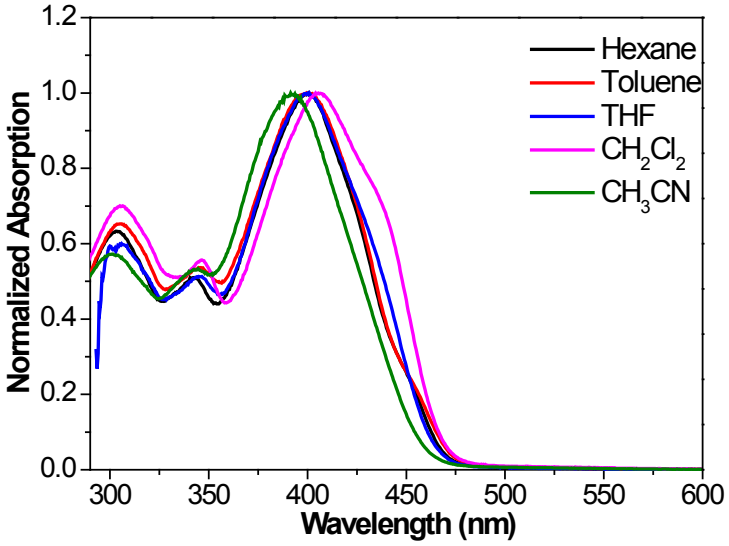


Figure S3. Normalized UV-vis absorption spectra of **3** in different solvents.

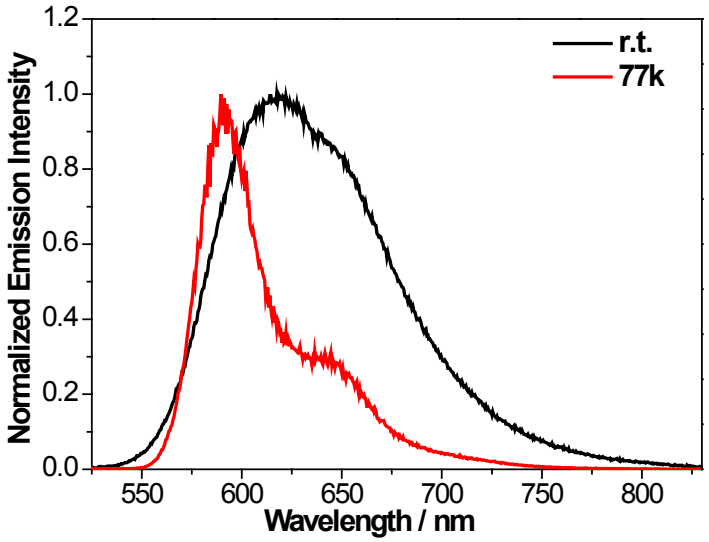


Figure S4. Normalized emission spectra of complex **2** (λ_{ex} = 420 nm) at r.t. and 77 K in BuCN.

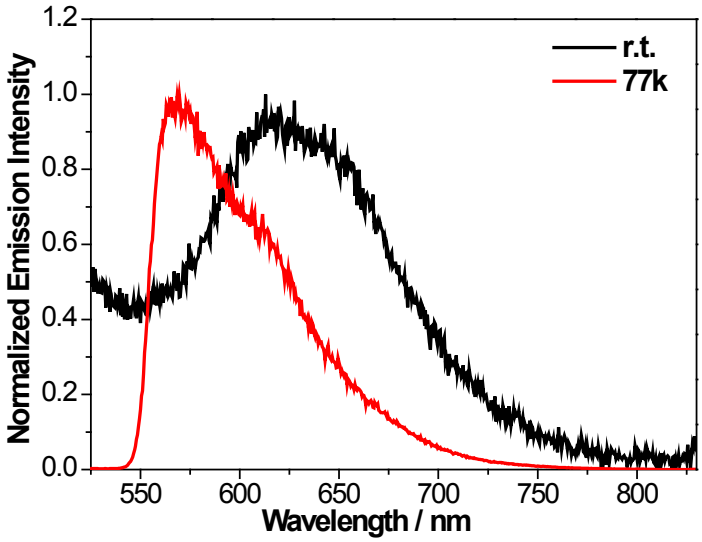


Figure S5. Normalized emission spectra of complex **3** (λ_{ex} = 420 nm) at r.t. and 77 K in BuCN.

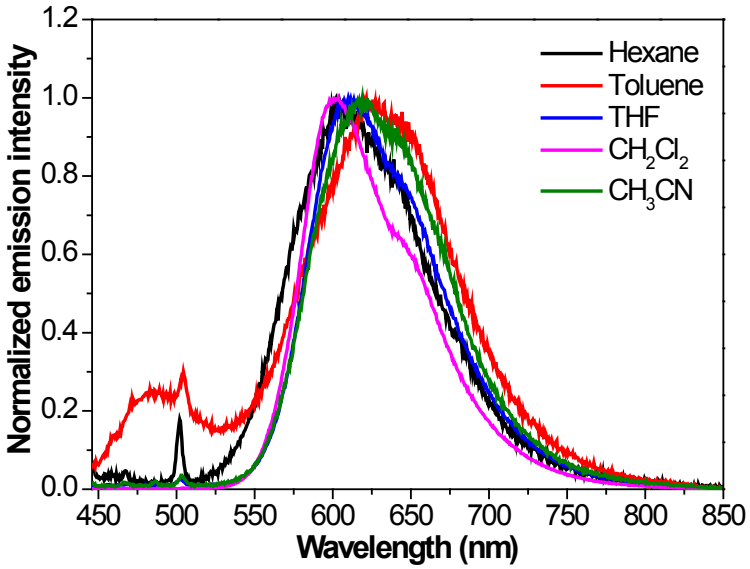


Figure S6. Normalized emission spectra of **2** in different solvents under an argon atmosphere (λ_{ex} = 436 nm).

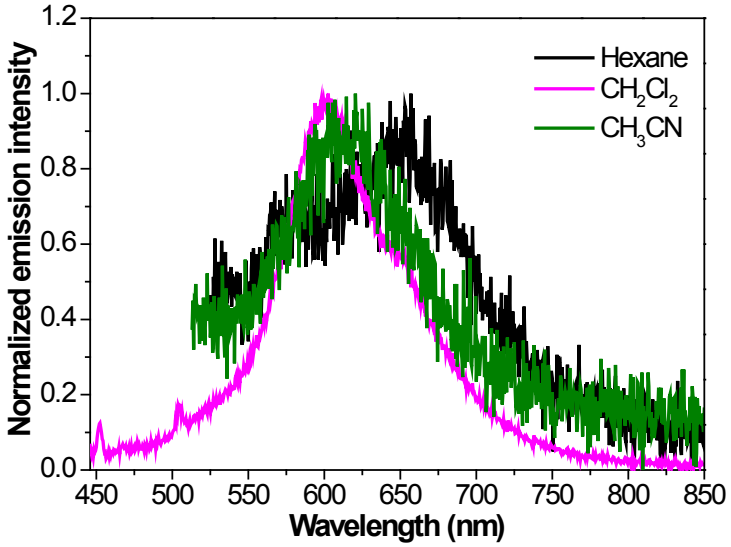


Figure S7. Normalzied emission spectra of **3** in different solvents under an argon atmosphere (λ_{ex} = 436 nm).

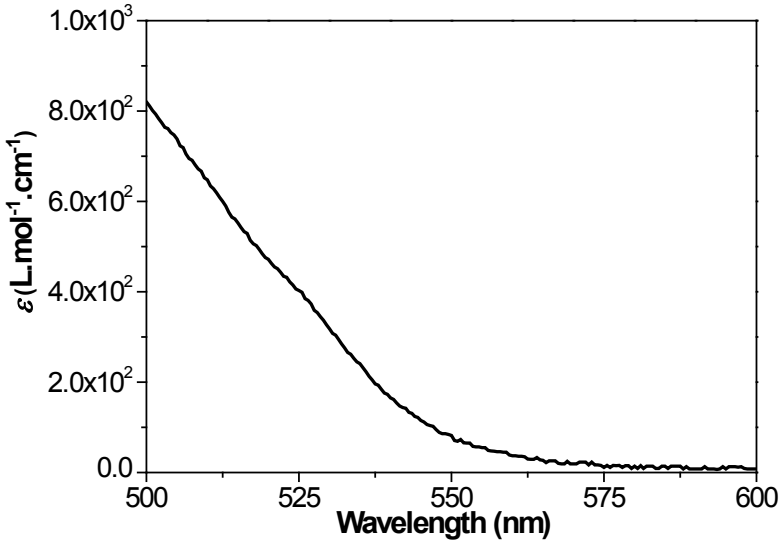


Figure S8. UV-vis absorption spectra of **1** in toluene solvent at 500-600 nm.

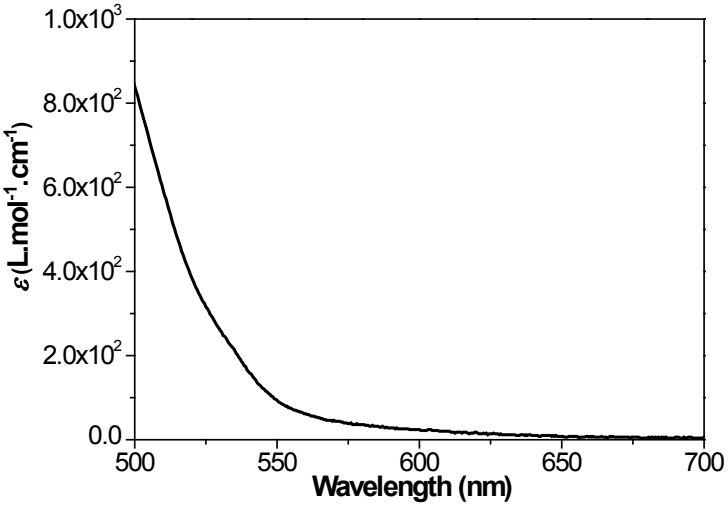


Figure S9. UV-vis absorption spectra of **2** in toluene at 500-700 nm.

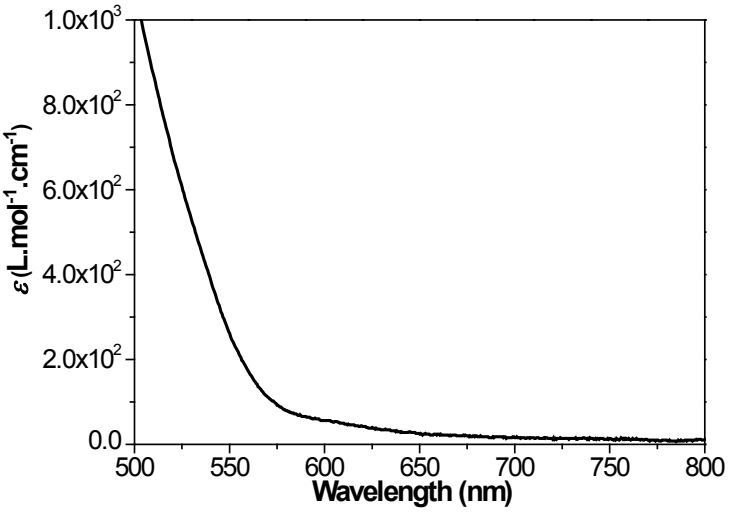


Figure S10. UV-vis absorption spectra of **3** in toluene at 500-800 nm