

Electronic Supplementary Information (ESI)

**Simple Luminescent Phenanthroimidazole Emitters for Solution-processed Non-doped
Organic Light-emitting Electrochemical Cells**

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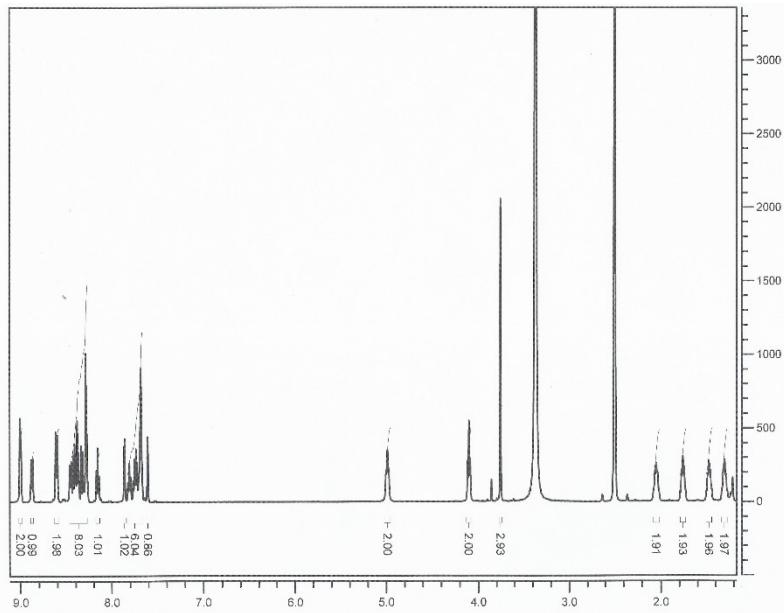


Figure S1. ^1H -NMR spectrum of PITP.

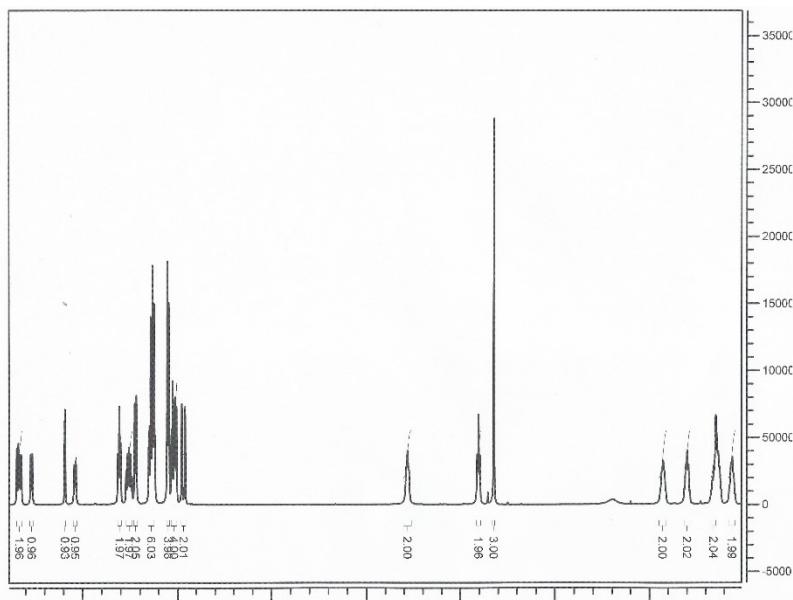


Figure S2. ^1H -NMR spectrum of PITT.

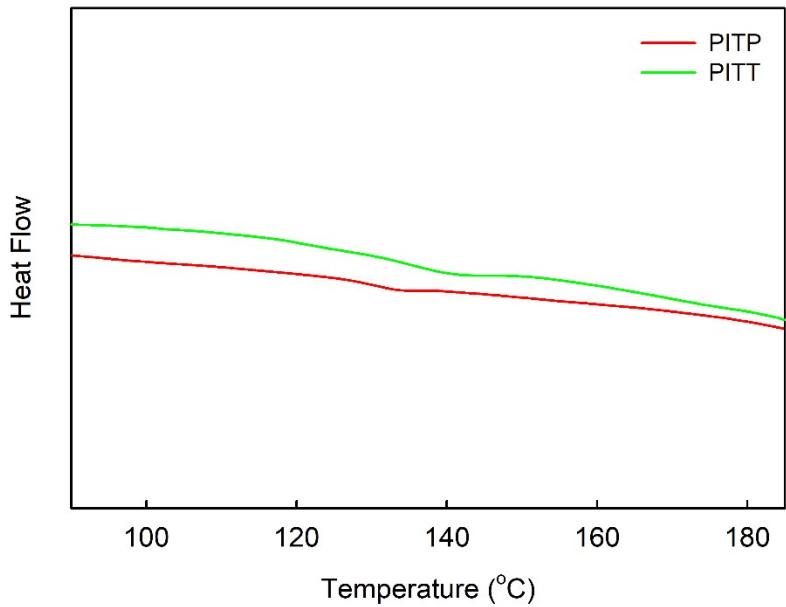


Figure S3. DSC curves of PITP and PITT.

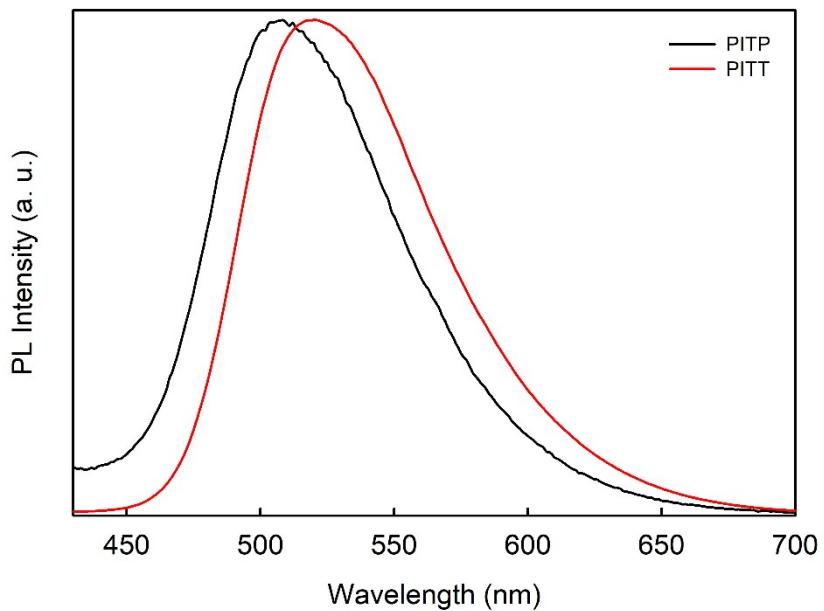


Figure S4. Thin film emission spectra of PITP and PITT.

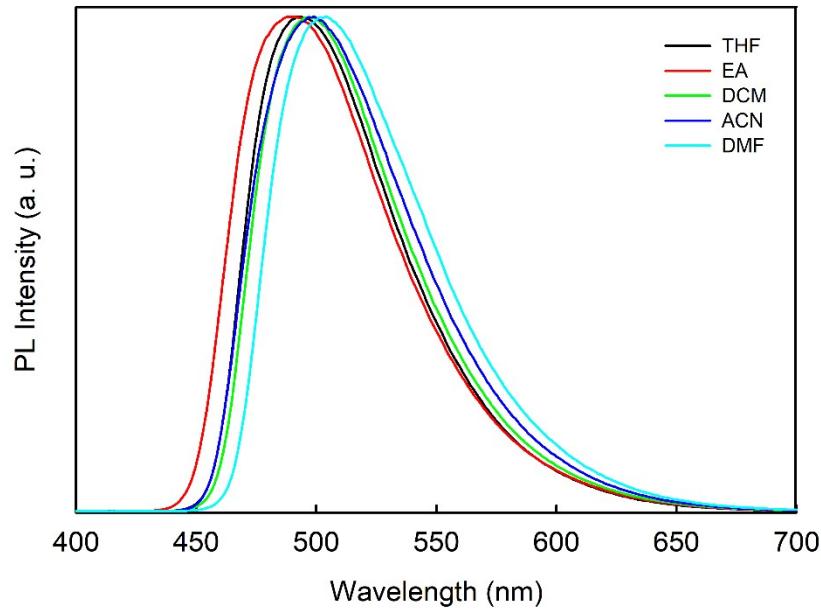


Figure S5. Emission spectra of PITP in different solvents.

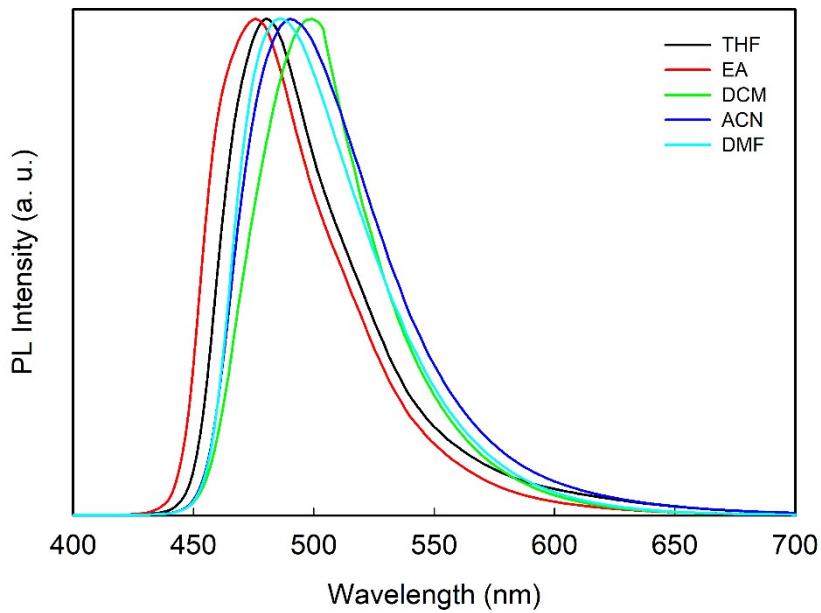


Figure S6. Emission spectra of PITT in different solvents.

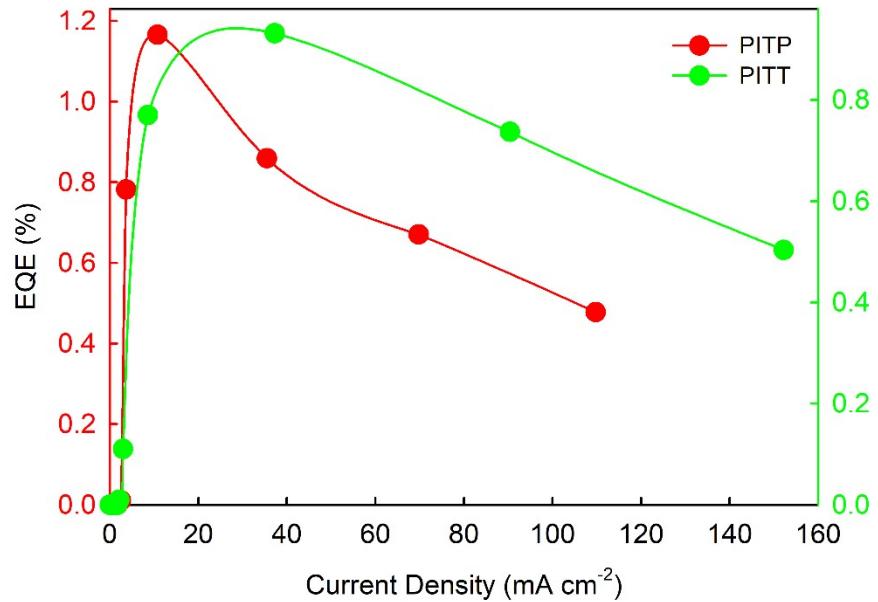


Figure S7. EQE at different current densities for PITP and PITT LECs.

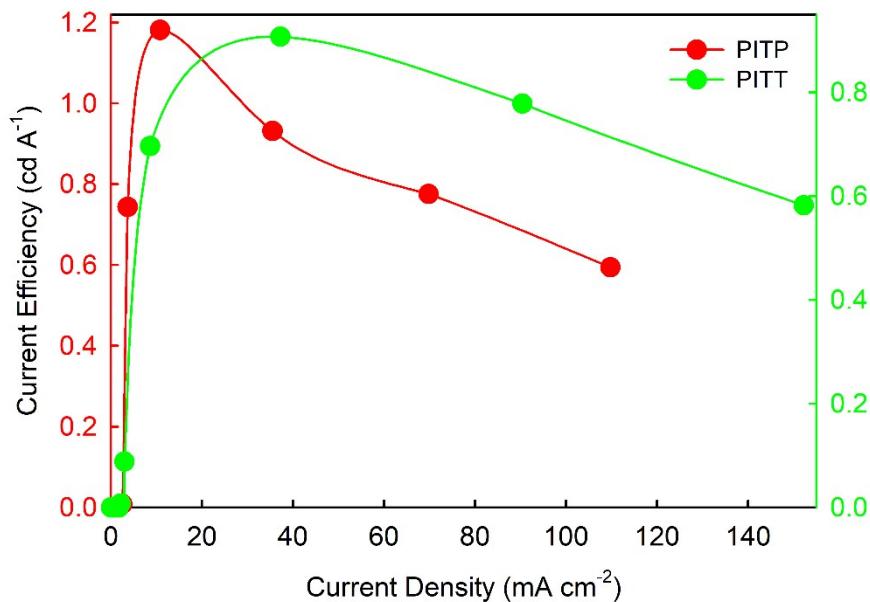


Figure S8. CE at different current densities for PITP and PITT LECs.

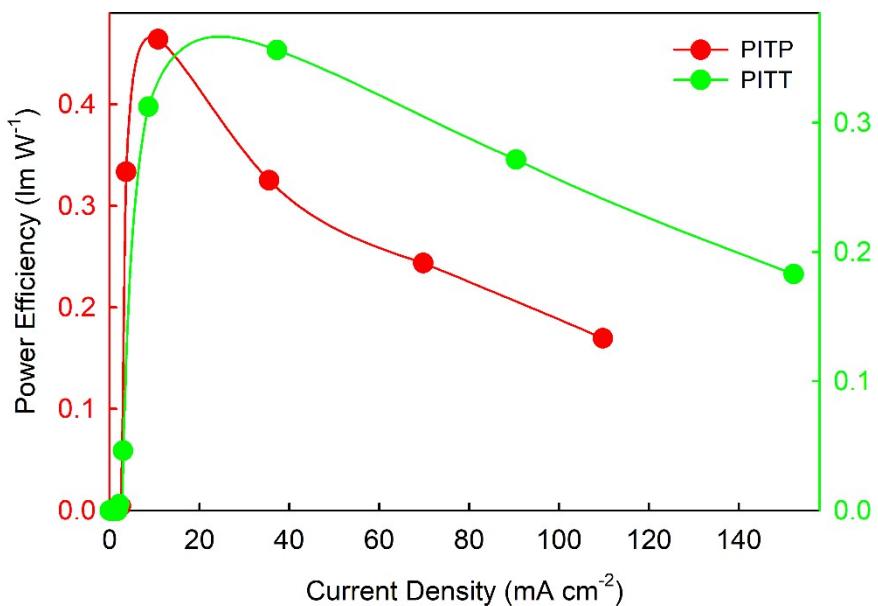


Figure S9. PE at different current densities for PITP and PITT LECs.

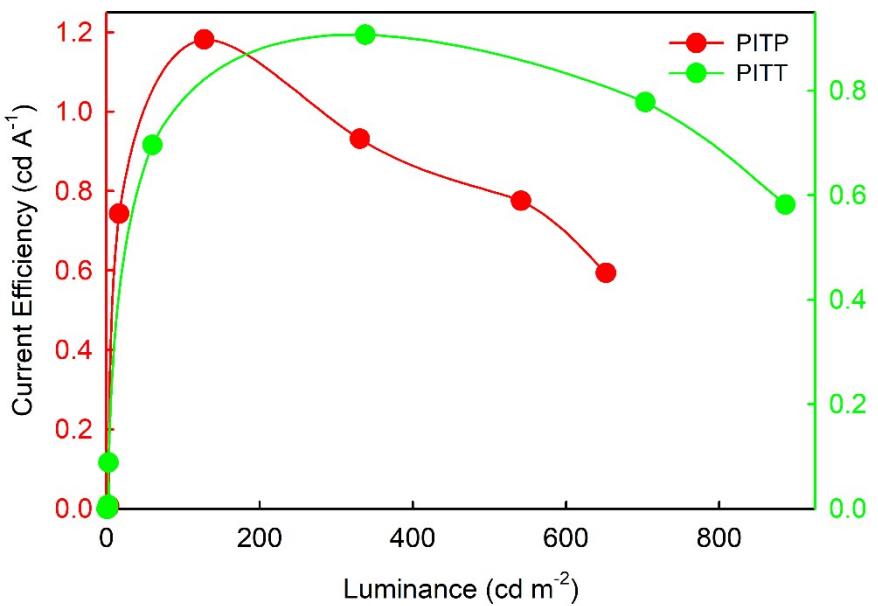


Figure S10. Luminance at CE for PITP and PITT LECs

Emitters	λ_{max}	EQE	Current Efficiency	Luminance	Ref.
	(nm)	(%)	(cd/A)	(cd/m ²)	
CPC	484	1.05	1.29	430	[1]
Ihpypn	487	-	0.2	711	[2]
mPy	485	-	0.29	585	[3]
PPP	530	-	-	499	[4]
NPzN	499	-	-	129	[5]
PPPSO2	498	-	-	509	[6]
PITP	521	1.16	1.18	652	This work
PITT	530	0.93	0.91	886	This work

Table S1. Comparison of EL properties