

Electronic Supplementary Information for

Phenanthroimidazole derivatives as emitters for non-doped deep-blue organic light emitting devices

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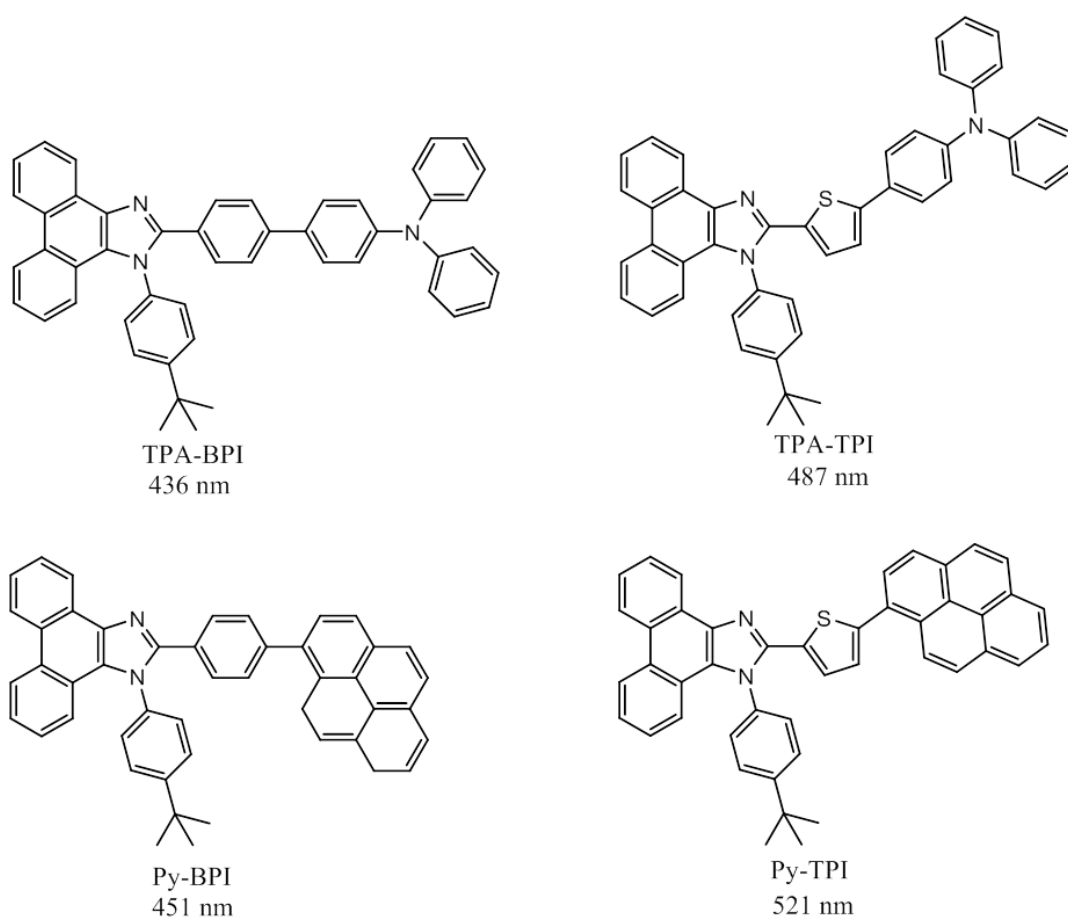


Fig.S1 Molecule chemical structure of TPA-BPI, Py-BPI, TPA-TPI, Py-TPI and the PLmax wavelength in thin solid film

Table S1 Dihedral angle of the single crystal structures.

Crystal Name	A-B	A-C	B-D	C-D
1N-BPI	36.04°	64.15°	53.71°	--
2N-PI	1.86°	86.33°	--	--
2N-API	33.27°	83.64°	--	36.23°

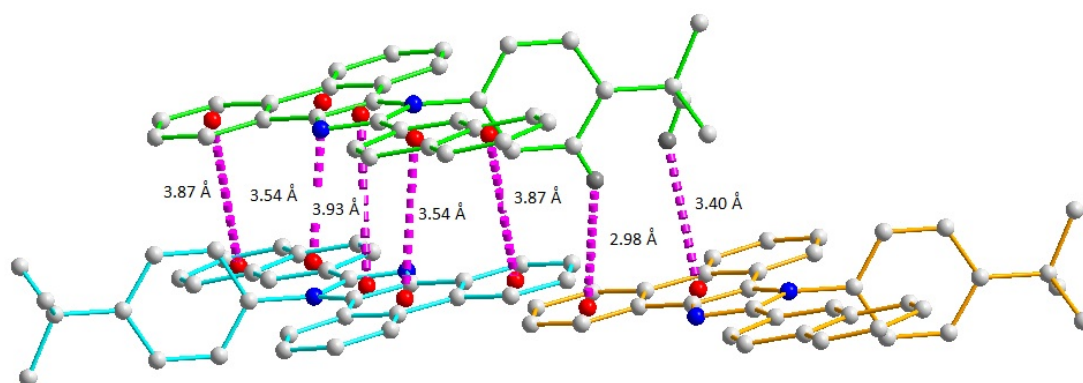


Fig.S2 Intermolecular interaction analysis for the single crystal of 2N-PI.

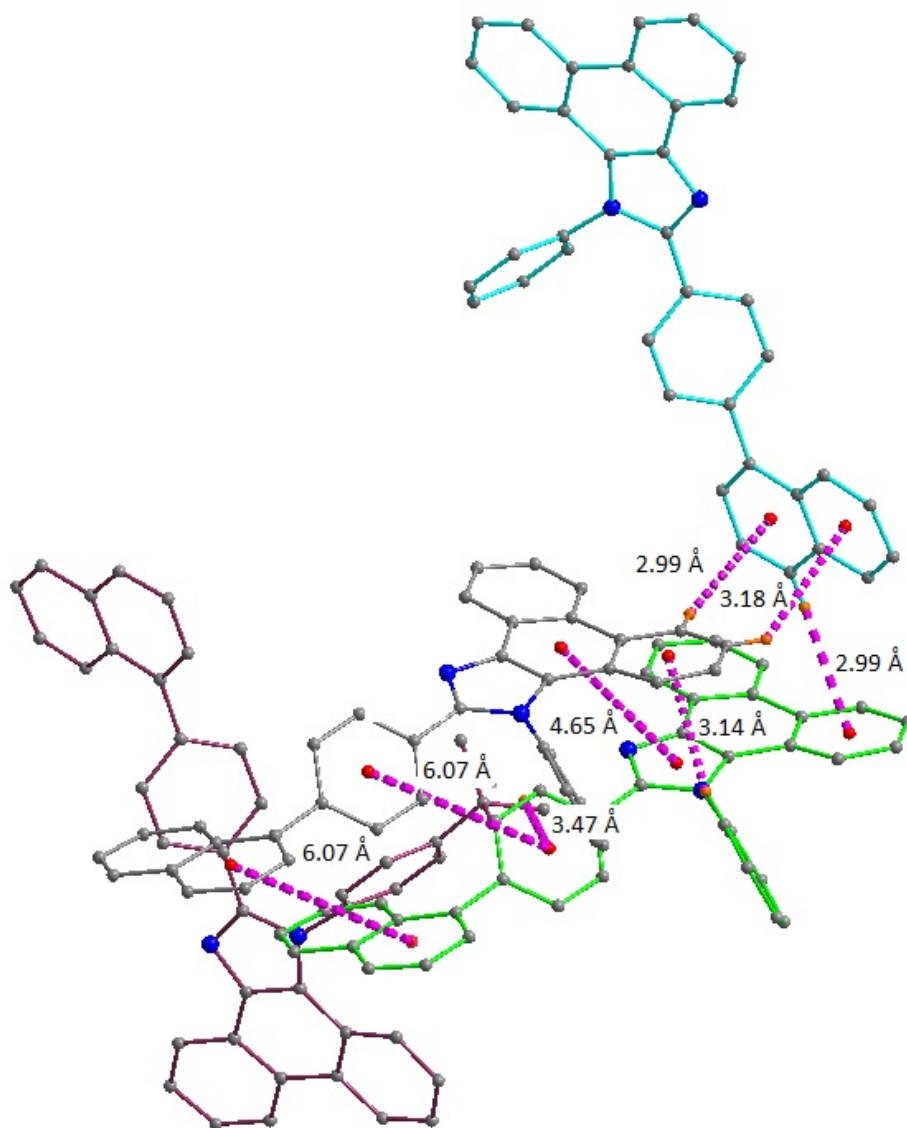


Fig.S3 Intermolecular interaction analysis for the single crystal of 1N-BPI.

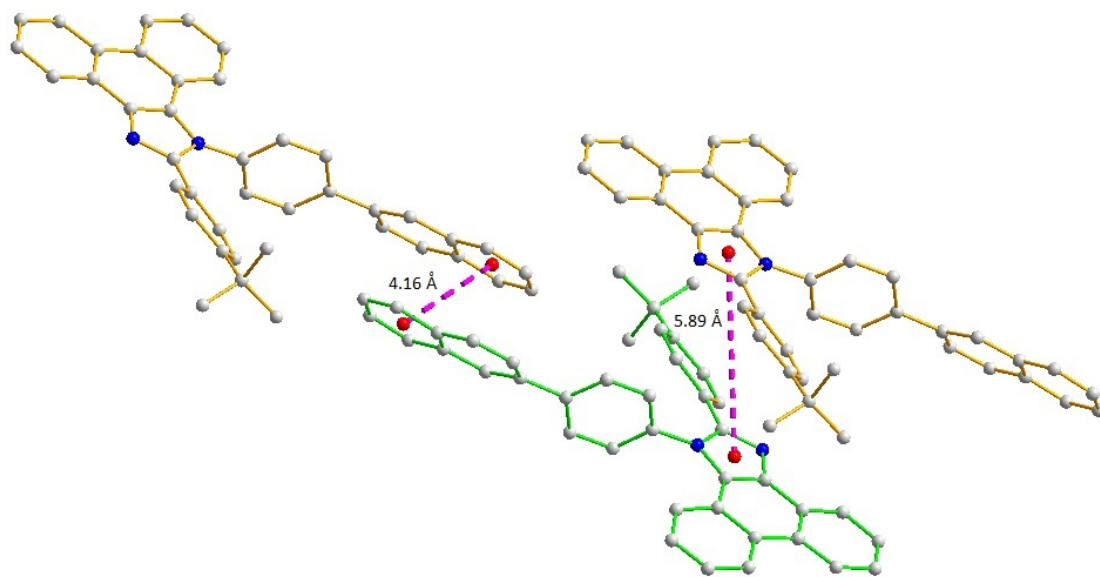
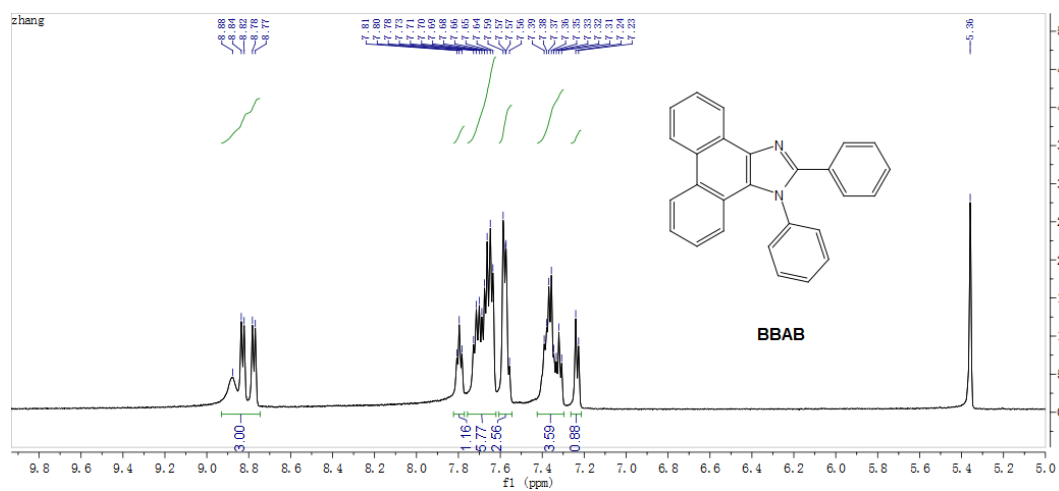
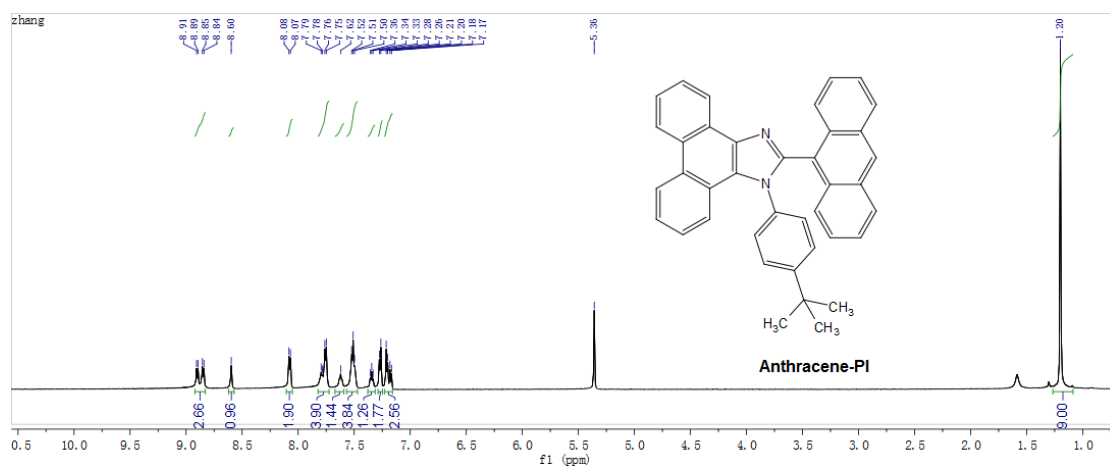
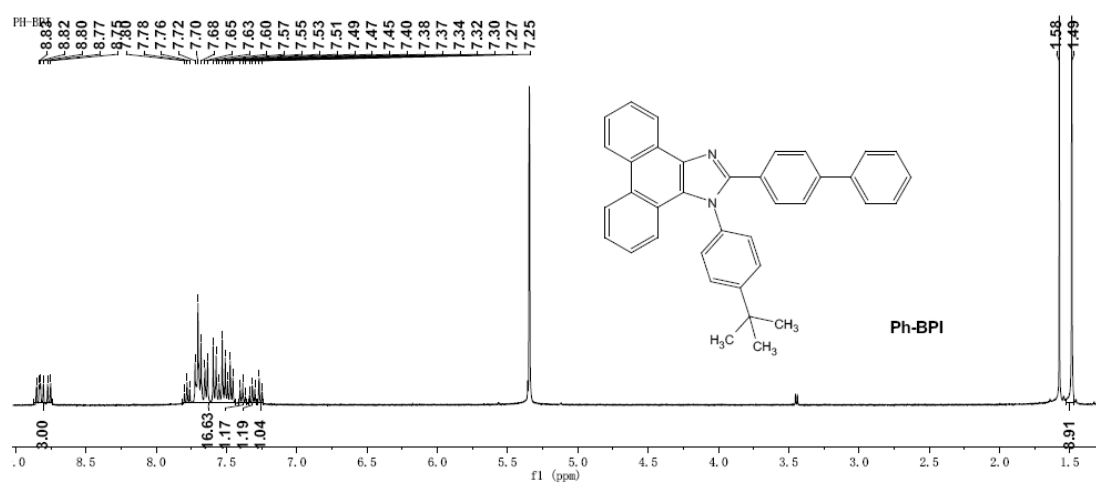
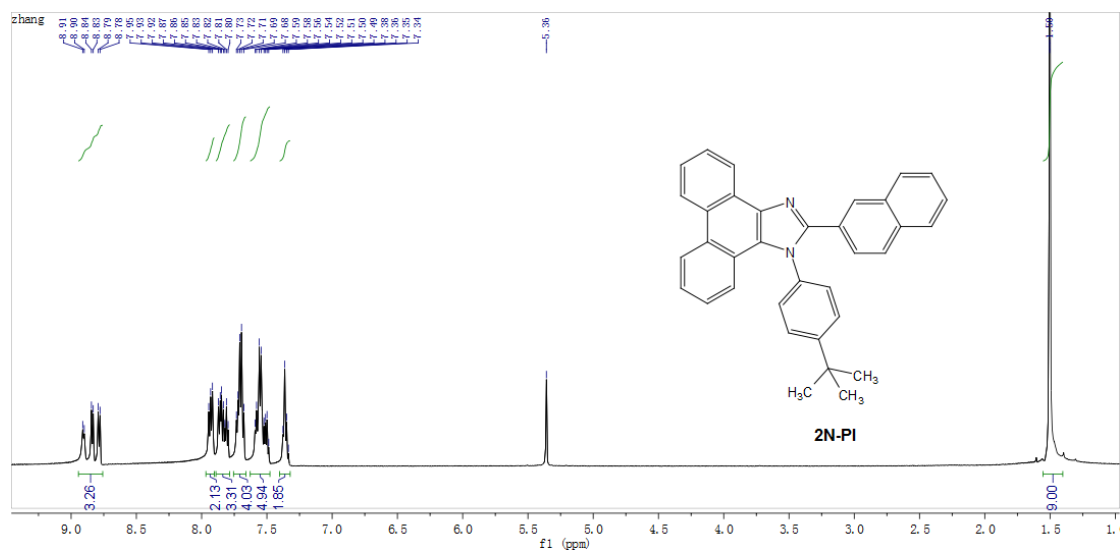


Fig.S4 Intermolecular interaction analysis for the single crystal of 2N-API.

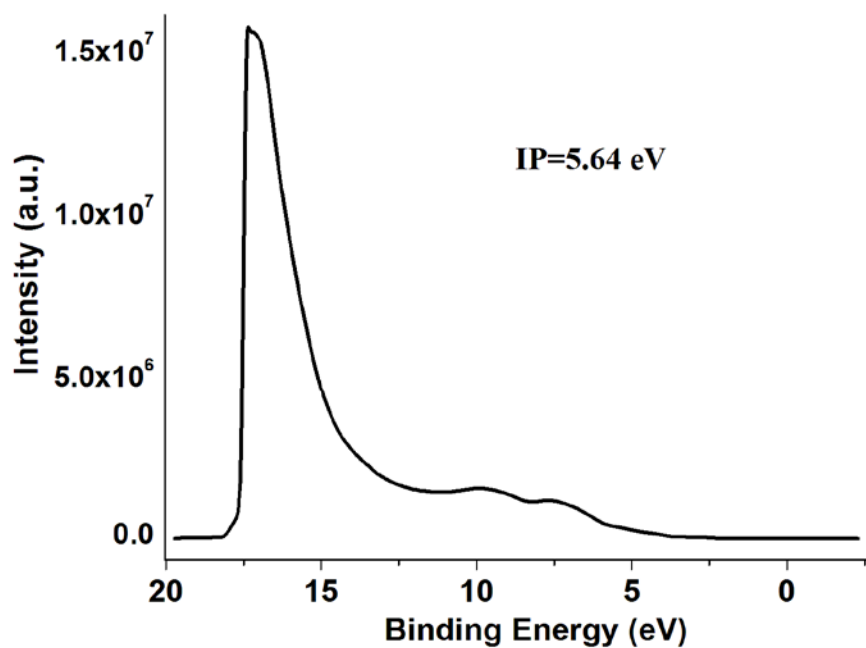
¹H NMR spectrum for synthesized compounds





UPS spectrum for synthesized compounds

BBAB



2N-PI

