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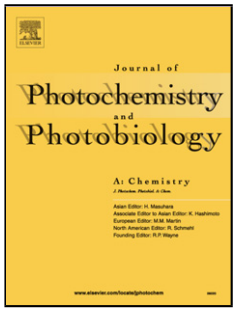

Title: New cyanopyridine based conjugative polymers as blue emitters: Synthesis, photophysical, theoretical and electroluminescence studies

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New cyanopyridine based conjugative polymers as blue emitters: Synthesis, photophysical, theoretical and electroluminescence studies

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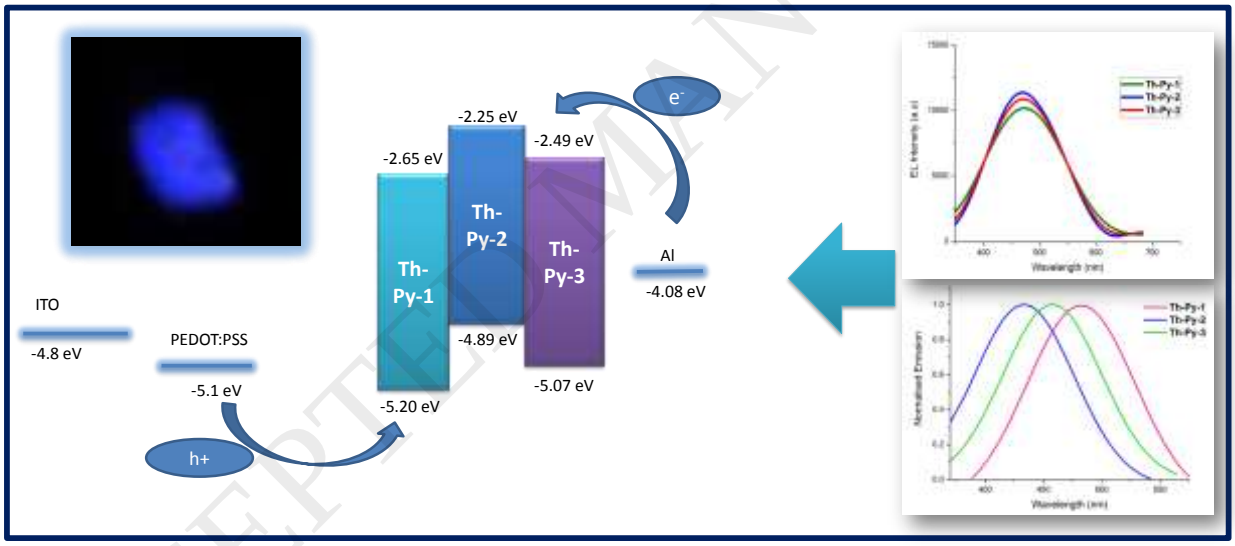
GRAPHICAL ABSTRACT:

Three new conjugative polymers **Th-Py-1, Th-Py-2** and **Th-Py-3**, were designed, synthesized and characterized. Their thermal, photophysical, theoretical and electroluminescence studies were carried out.



HIGHLIGHTS

- Designed and synthesized new 3 cyanopyridine based polymers for PLED applications
- Polymers display light absorption at 377-397 nm and emission at 432-482 nm
- They possess optical band gap of 2.55-2.64 eV with good thermal stability
- Their EL maxima range is 469-476 nm with blue emission in their PLED devices
- Their fluorescence quantum yield varies in the range of 21-45%