

Supplementary Information

Improving the Electroluminescence of [Zn(salophen)(OH₂)] in Polyfluorene-Based Light-Emitting Diode: The Role of Energy Transfer and Charge Recombination

José C. Germino,^a Fernando J. Quites,^{a,b} Gregório C. Faria,^c Romildo J. Ramos^d and Teresa D. Z. Atvars^{*a}

^aInstituto de Química, Universidade Estadual de Campinas (Unicamp),
13083-970 Campinas-SP, Brazil

^bDepartamento de Química, Instituto de Ciências Exatas e da Terra,
Universidade Federal do Mato Grosso (UFMT), 78060-900 Cuiabá-MT, Brazil

^cInstituto de Física de São Carlos, Universidade de São Paulo (USP),
13566-590 São Carlos-SP, Brazil

^dInstituto de Física, Universidade Federal do Mato Grosso (UFMT),
78060-900 Cuiabá-MT, Brazil

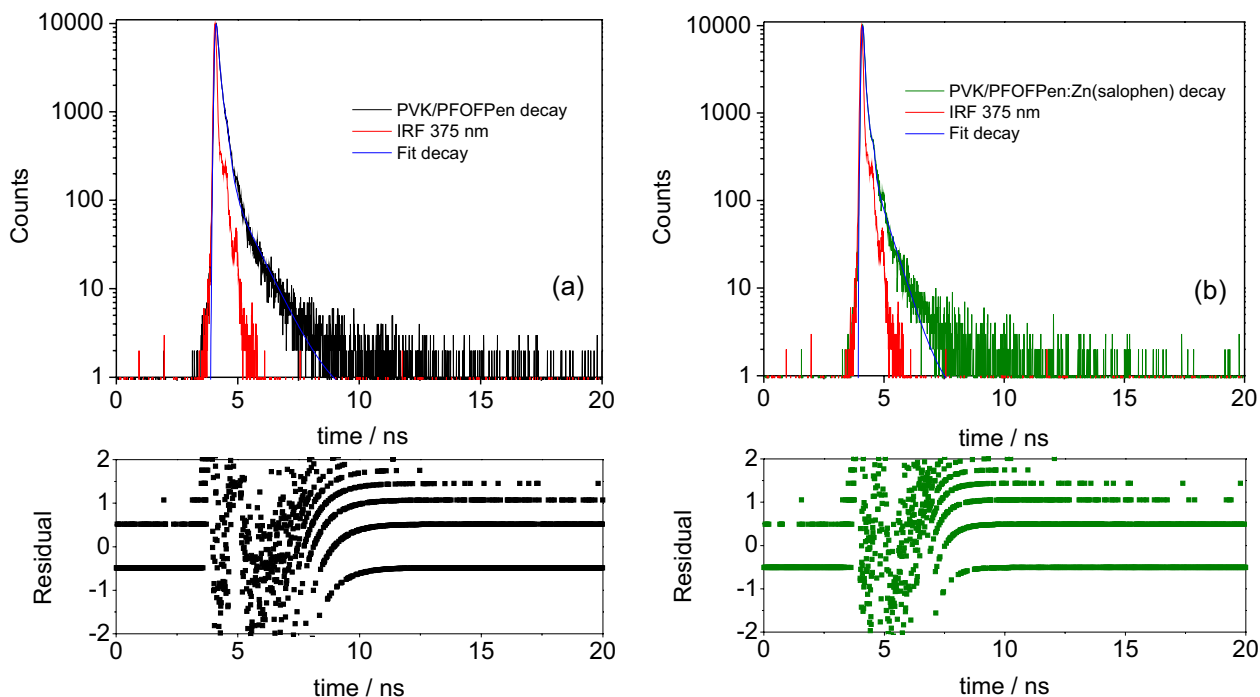


Figure S1. Lifetime decays of the (a) PVK/PFOFPe and (b) PVK/PFOFPe:[Zn(salophen)(OH₂)] 2.5% mol/mol ($\lambda_{exc} = 370$ nm; $\lambda_{PL} = 424$ nm).

*e-mail: tatvars@iqm.unicamp.br

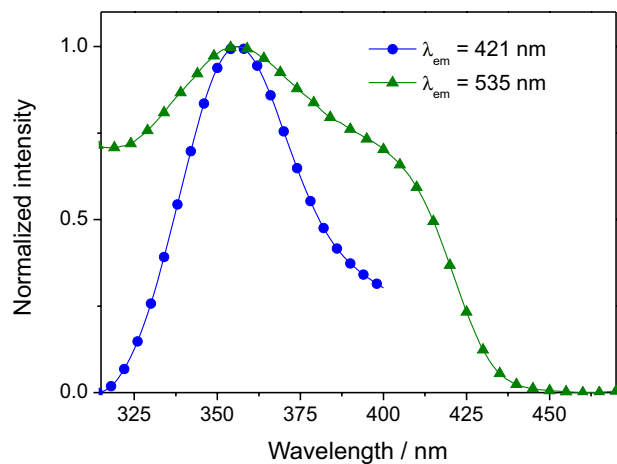


Figure S2. Normalized excitation spectra of PVK/PFOFPen:[Zn(salophen)(OH₂)] 2.5% mol/mol thin film composite monitored at two emission wavelengths: $\lambda_{em} = 421$ nm (full circle) and $\lambda_{em} = 535$ nm (full triangle).

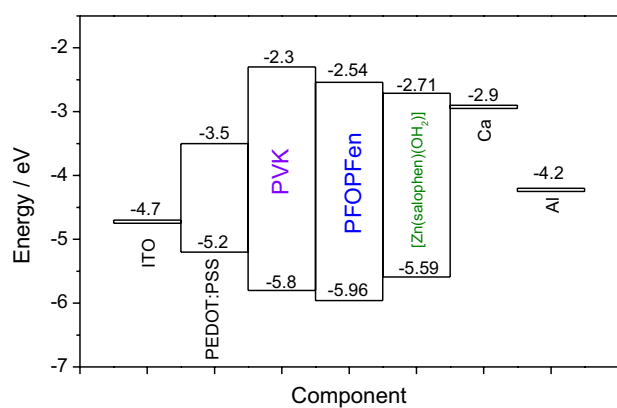


Figure S3. Diagram with the frontier energy levels of the [Zn(salophen)(OH₂)] determined by cyclic voltammetry.¹ (Values for the other components: ITO, Al, Ca,² PEDOT:PSS,³ PVK⁴ and PFOFPen⁴).

References

1. Barboza, C. A.; Germino, J. C.; Santana, A. M.; Quites, F. J.; Vazquez, P. A. M.; Atvars, T. D. Z.; *J. Phys. Chem. C* **2015**, *119*, 6152.
2. Skriver, H. L.; Rosengard, N. M.; *Phys. Rev. B: Condens. Matter Mater. Phys.* **1992**, *46*, 7157.
3. Hagen, J. A.; Li, W.; Steckl, A. J.; Grote, J. G.; *Appl. Phys. Lett.* **2006**, *88*, 2004.
4. Quites, F. J.; Faria, G. C.; Germino, J. C.; Atvars, T. D. Z.; *J. Phys. Chem. A* **2014**, *118*, 10380.