

Supplementary Information

New cross-linkable 9,10-diphenylanthracene derivative as wide bandgap host for solution-processed organic light-emitting diodes

Rawad K. Hallani,^{‡,1} Vahid Fallah Hamidabadi,^{‡,2,3} Aron Joel Huckaba,⁴ Gianmarco Galliani,¹ Azin Babaei,² Maria-Grazia La-Placa,² Ali Bahari,³ Michele Sessolo,^{2,} Mohammad Khaja Nazeeruddin,⁴ Iain McCulloch¹ and Henk J. Bolink²*

¹KAUST Solar Center (KSC), Division of Physical Sciences and Engineering, King Abdullah University of Science and Technology (KAUST), Thuwal 23955-6900, Saudi Arabia

²Instituto de Ciencia Molecular, Universidad de Valencia, C/ J. Beltrán 2, 46980, Paterna, Spain. *E-mail:
michele.sessolo@uv.es

³Department of Physics, Faculty of Basic Sciences, University of Mazandaran, Babolsar 47416-95447, Iran

⁴Group for Molecular Engineering of Functional Materials, Ecole Polytechnique Federale de Lausanne, Valais Wallis, CH-1951 Sion, Switzerland.

[‡]These authors contributed equally to this work.

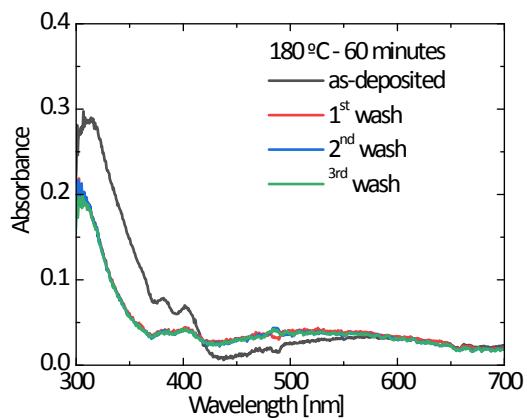


Figure S1. Optical absorption spectra of a SPhPC:F1 (5 wt%) film before (black) and after subsequent rinsing with pure toluene.

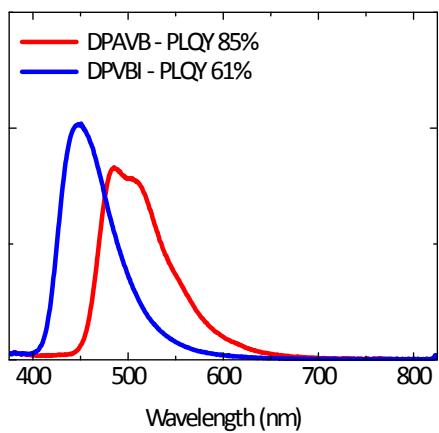


Figure S2. Photoluminescence spectra (excitation wavelength 310 nm) of cross-linked SPhPC films doped with either DPAVB or DPVBI (10 wt%). The PLQY values are also reported.

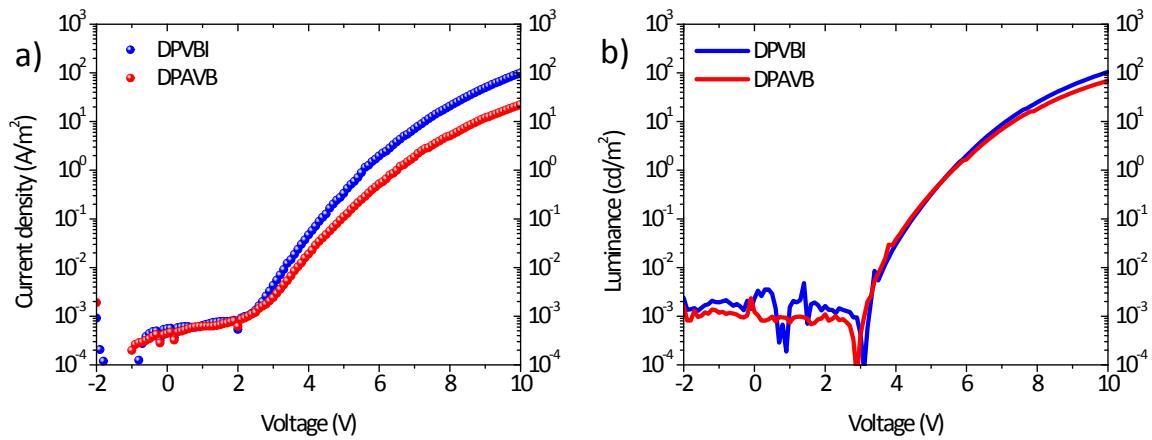


Figure S3. a) Current density and b) luminance vs. the applied bias for solution-processed multilayer OLEDs employing DPVBI and DPAVB as the emitter.