

Support Information

Enhanced light extraction from organic light-emitting devices through non-covalent or covalent polyimide-silica light scattered hybrid films

Jui-Hua Yen¹, Yi-Jyun Wang², Chung-An Hsieh³, Yung-Chung Chen^{1,4*}, Li-Yin Chen^{3*}

¹. Department of Chemical and Materials Engineering, National Kaohsiung University of Science and Technology, Kaohsiung 80778, Taiwan

². Department of Photonics, National Sun Yat-sen University, Kaohsiung 80424, Taiwan

³. Department of Photonics, National Chiao Tung University, Hsinchu, 30010, Taiwan

⁴. Photo-sensitive Material Advanced Research and Technology Center (Photo-SMART), National Kaohsiung University of Science and Technology, Kaohsiung City 80778, Taiwan

*Corresponding authors: Y. C. Chen (chenyc@nkust.edu.tw)

L. Y. Chen (lychen@nctu.edu.tw)

Index Name	Material	Thickness(μm)	TYPE	N	K @ 633 nm
Ambient	VOID			1.000	0.000
Layer - 1	Oxide	0.58394 ± 0.008695	Dispersion	1.610	0.025
Substrate	bareglass			1.513	0.000

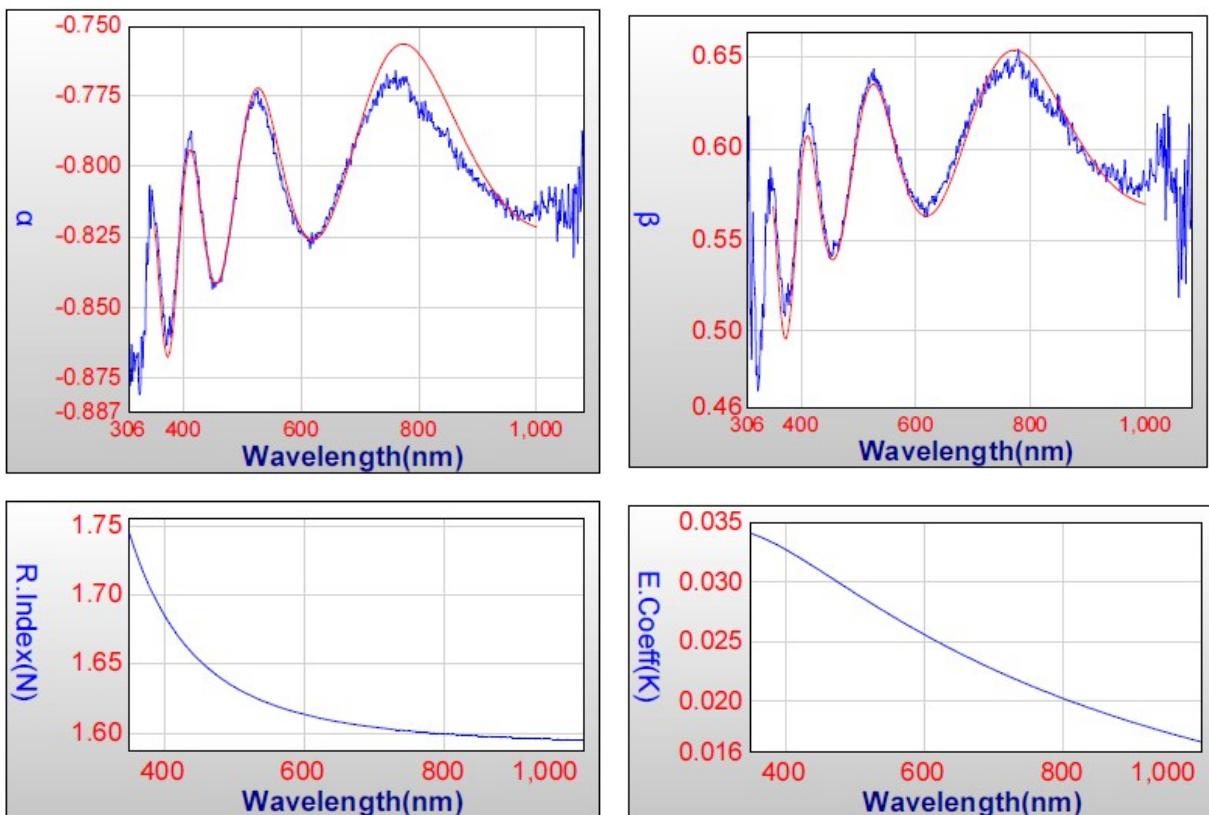


Fig. S1 Refractive index of the PI (3).

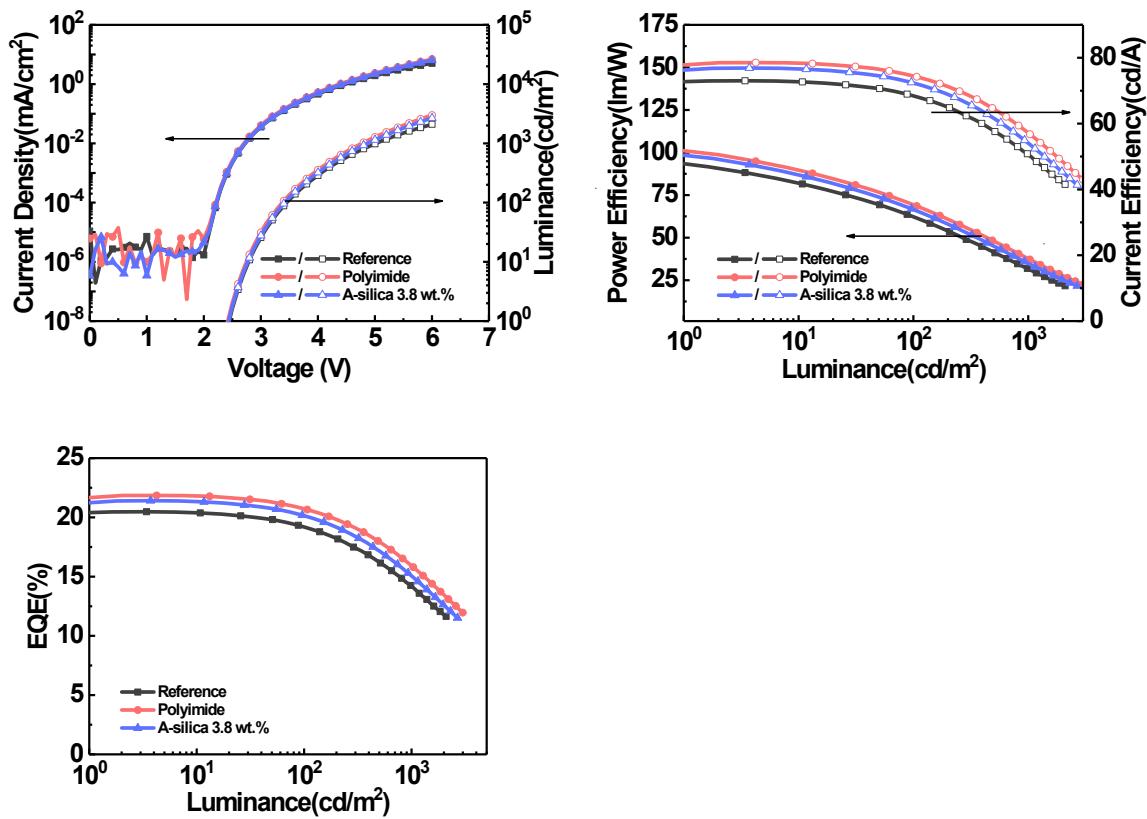


Fig. S2 The current-voltage-luminescence, power efficiency-luminescence-current efficiency and external quantum efficiency-luminescence spectra of the reference, neat PI and **A1**-based device under glove box.

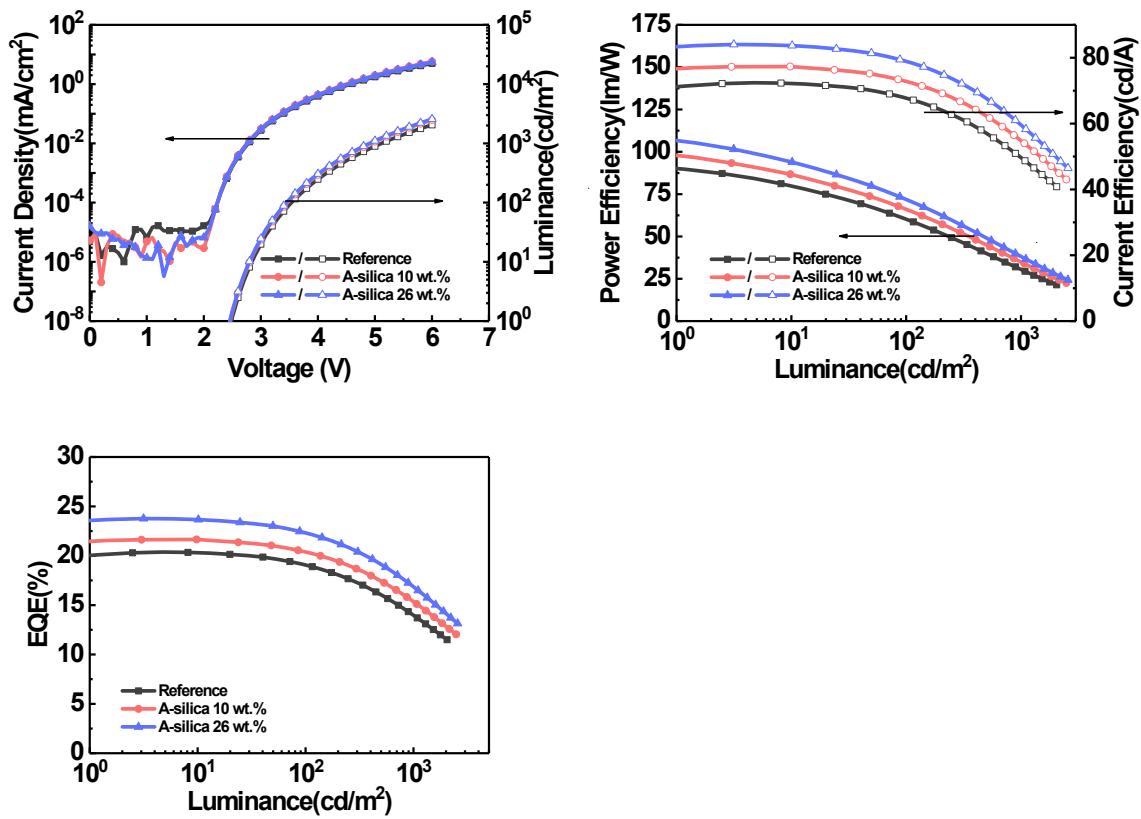


Fig. S3 The current-voltage-luminescence, power efficiency-luminescence-current efficiency and external quantum efficiency-luminescence spectra of the reference, **A2** and **A3**-based device under glove box.

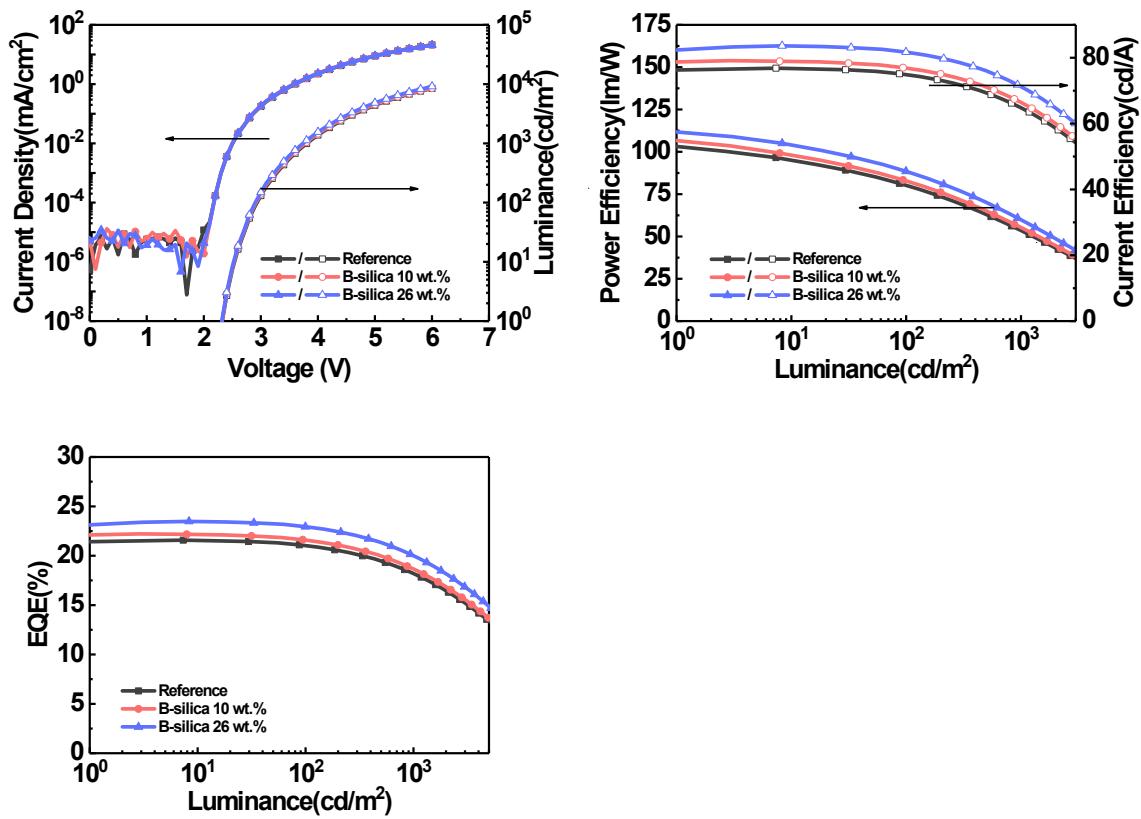


Fig. S4 The current-voltage-luminescence, power efficiency-luminescence-current efficiency and external quantum efficiency-luminescence spectra of the reference, **B1** and **B2**-based device under glove box.

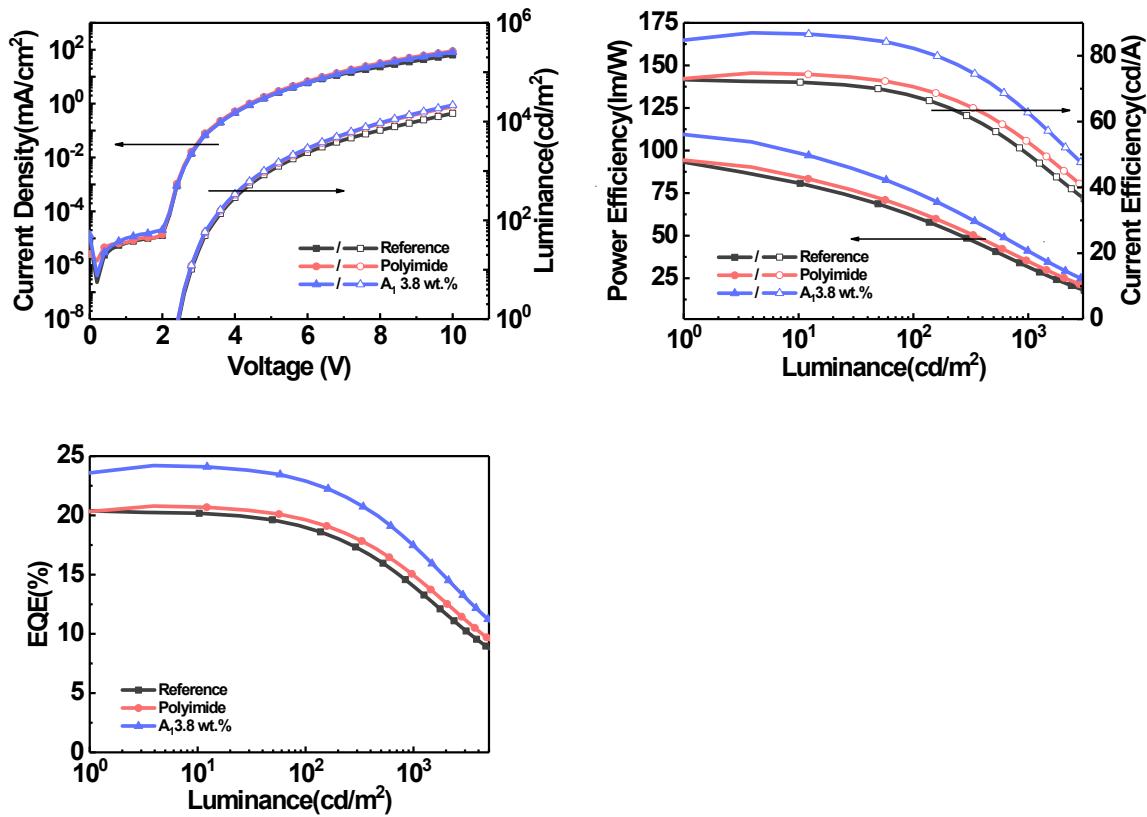


Fig. S5 The current-voltage-luminescence, power efficiency-luminescence-current efficiency and external quantum efficiency-luminescence spectra of the reference, neat PI and **A1**-based device under integrating sphere.

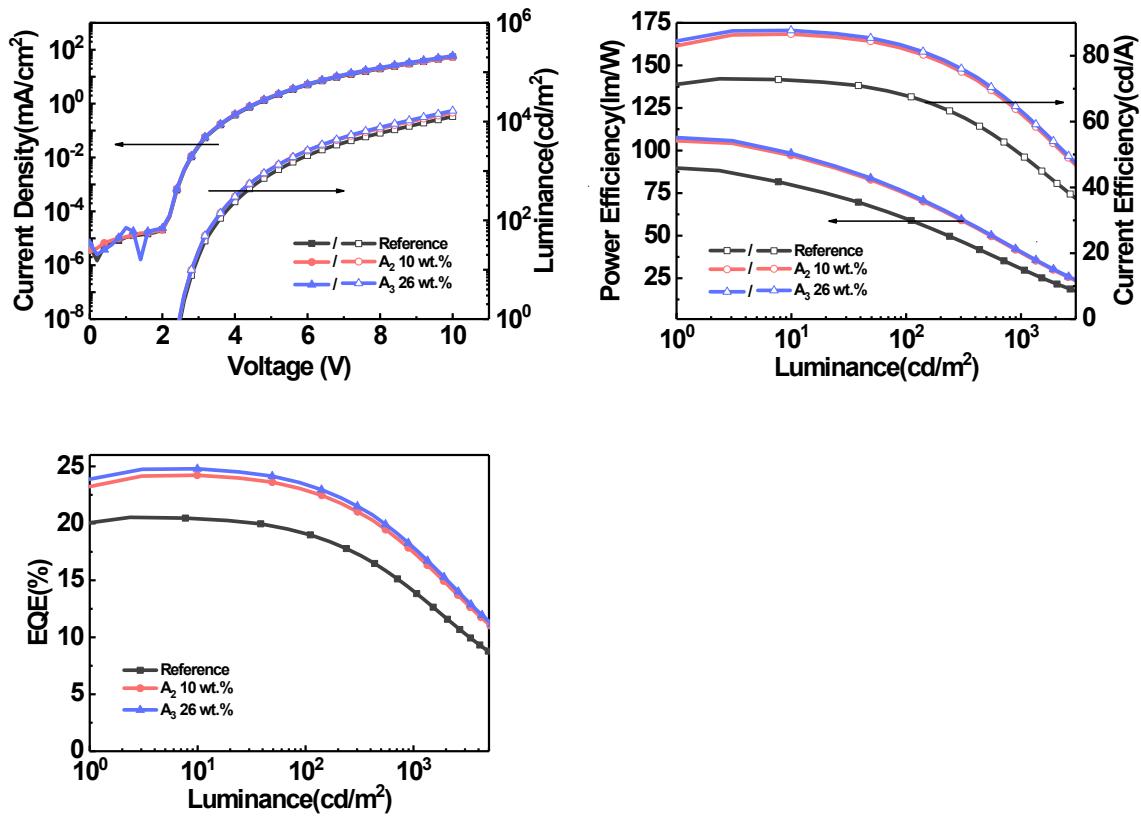


Fig. S6 The current-voltage-luminescence, power efficiency-luminescence-current efficiency and external quantum efficiency-luminescence spectra of the reference, **A2** and **A3**-based device under integrating sphere.

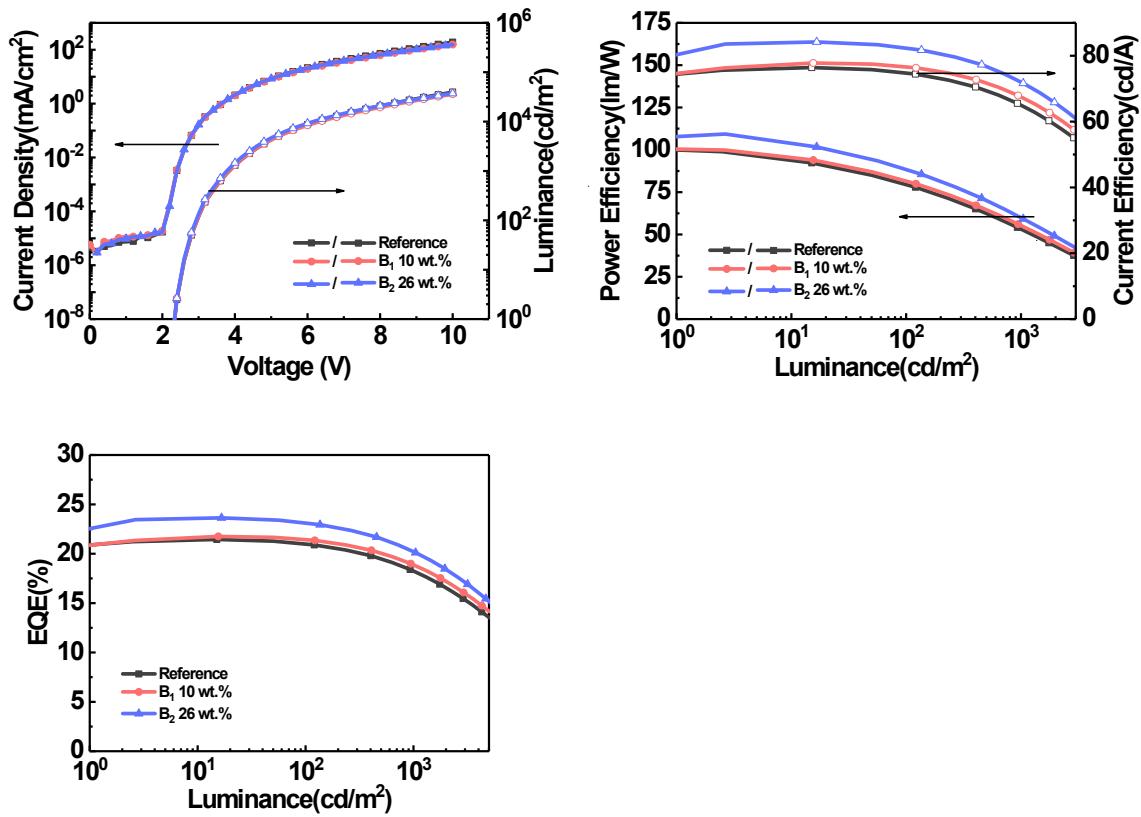


Fig. S7 The current-voltage-luminescence, power efficiency-luminescence-current efficiency and external quantum efficiency-luminescence spectra of the reference, **B1** and **B2**-based device under integrating sphere.