

Supporting Information

Nano-modified indium tin oxide incorporated with ideal microlens array for light extraction of OLED

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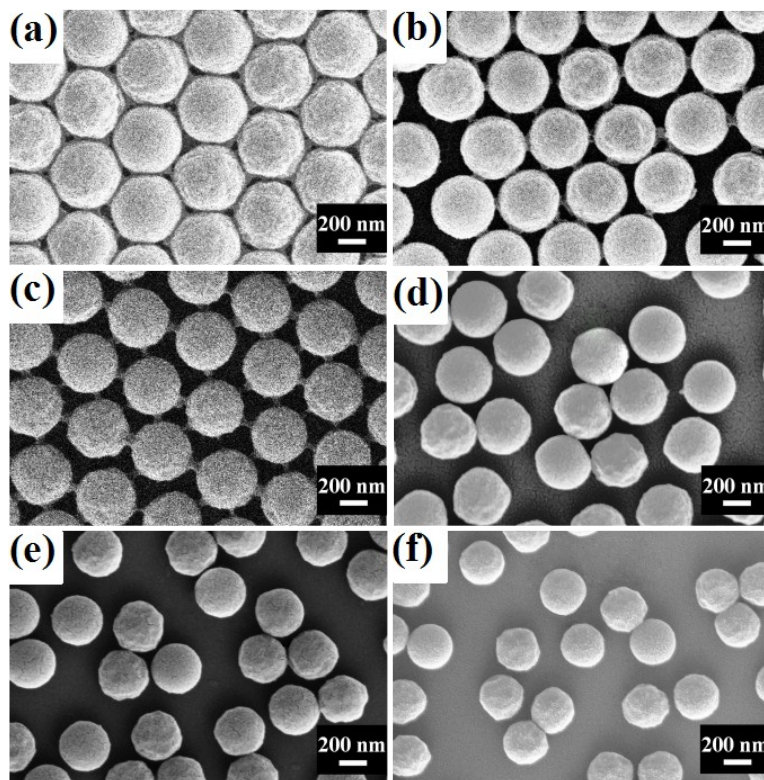


Fig. S1. Top-down SEM images of 520 nm PS spheres etched by different times: (a) 0 minute, (b) 2 minutes, (c) 4 minutes, (d) 6 minutes, (e) 8 minutes, and (e) 10 minutes.

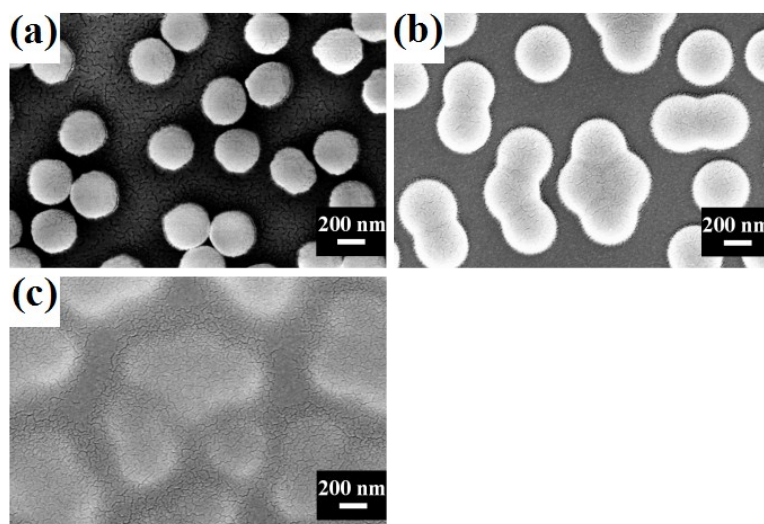


Fig. S2. Top-down SEM images of PS spheres which have been etched for 10 minutes and then subjected to various baking temperatures: (a) 100°C, (b) 150°C and (c) 200°C.

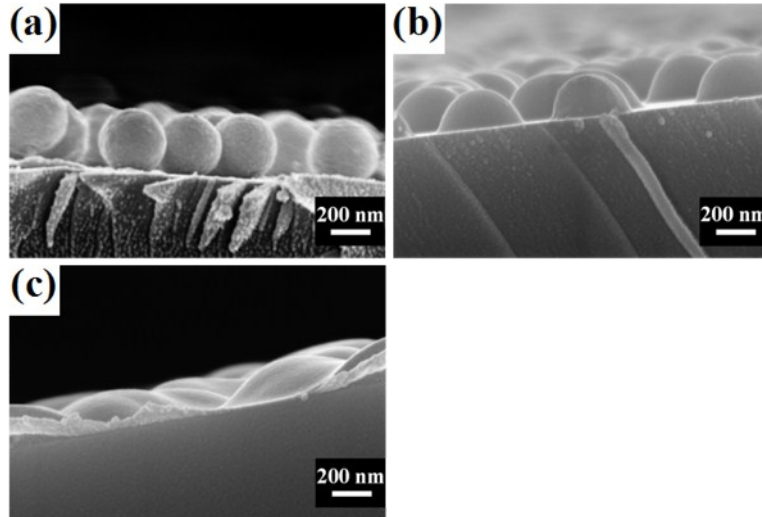


Fig. S3. Cross-section SEM images of PS spheres which have been etched for 10 minutes and then subjected to various baking temperatures: (a) 100 °C, (b) 150 °C and (c) 200 °C.

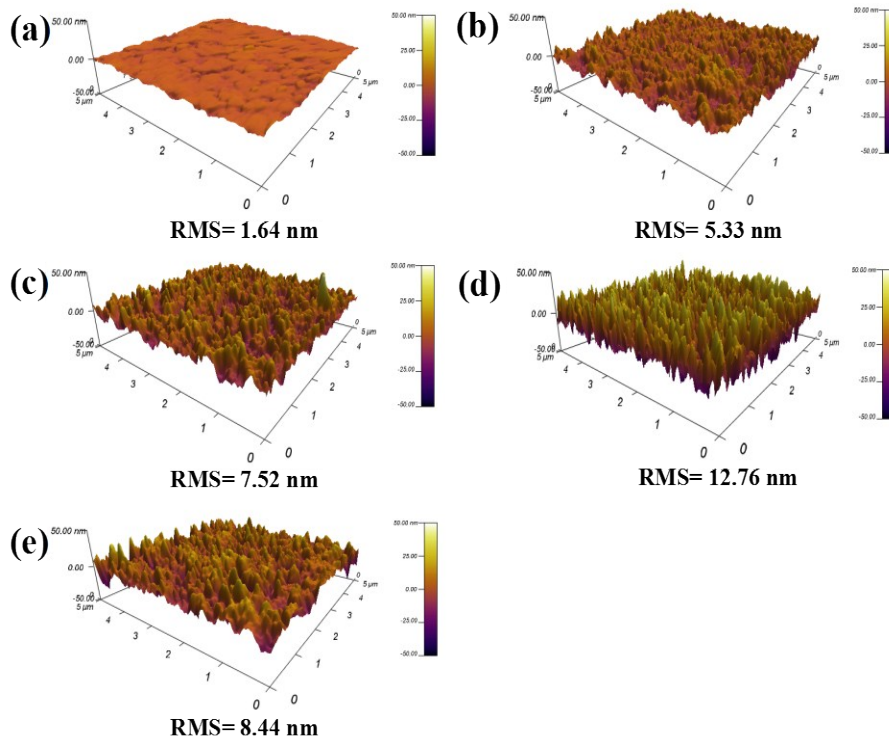


Fig. S4. AFM images of ITO glass substrates as a function of HCl etching time: (a) 0 minute, (b) 1 minute, (c) 2 minutes, (d) 3 minutes, and (e) 4 minutes. The root-mean-square (RMS) roughness is indicated below each image.

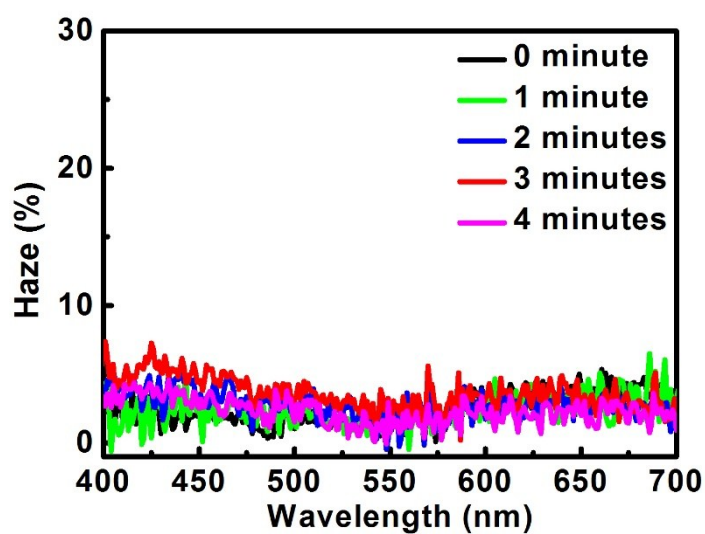


Fig. S5. Haze of the flat ITO (0 minute) and that etched with 1 minute, 2 minutes, 3 minutes and 4 minutes.

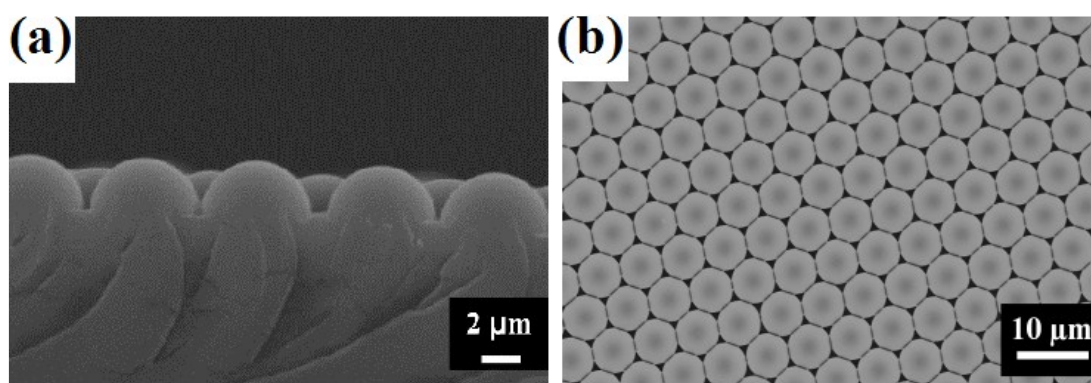


Fig. S6. (a) Cross section SEM image of IMLA. (b) Top SEM image of IMLA.

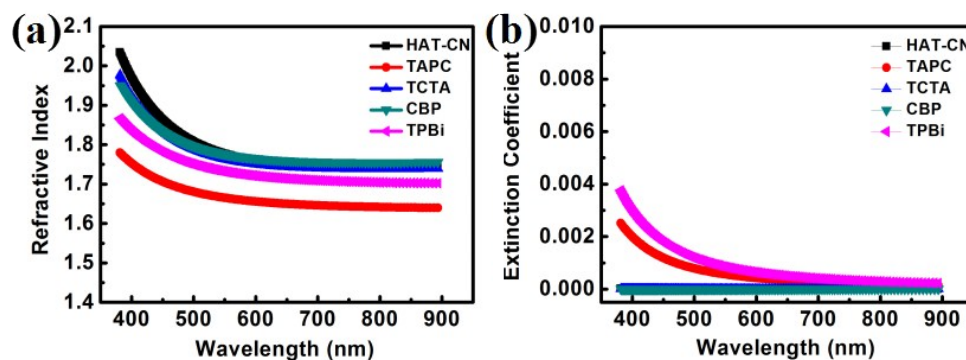


Fig. S7. Refractive indices (a) and extinction coefficients (b) of HAT-CN, TAPC, TCTA, CBP and TPBi Films.

Table S1. Brightness and CIE co-ordinates of various green-emitting devices. All devices were driven at a current density of 20 mA/cm².

Device	Brightness (cd/m ²)	CIE coordinates (x, y)
D1	10960	(0.347, 0.614)
D2	12740	(0.349, 0.615)
D3	14170	(0.340, 0.624)
D4	15030	(0.321, 0.636)
D5	13580	(0.326, 0.631)
D6	21620	(0.320, 0.637)
D7	16690	(0.343, 0.618)