Supporting Information

Feasible organic films using noninterfering emitters for sensitive and spatial high-temperature sensing

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1. Excitation spectra of C2 and C3 films

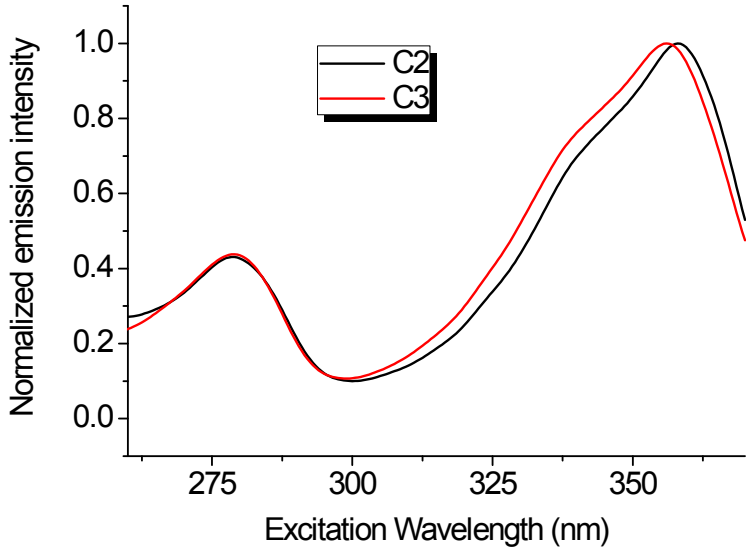

Figure S1. Normalized excitation spectra of C2 and C3 films (detected at 400 nm).

2. PL decay and fitting data of C2 and C3 films

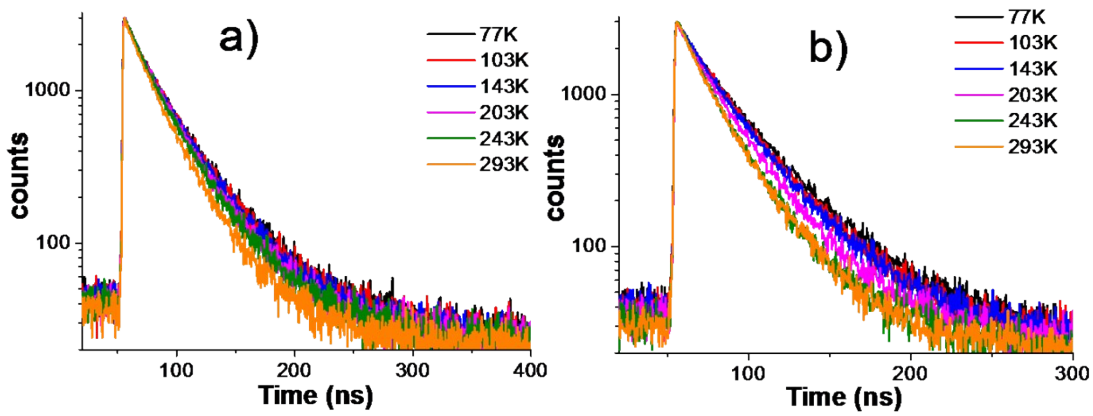

Figure S2. PL decay spectra of C2 (a) and C3 (b) films detected at 390 nm with the temperature changed from 77 to 293K.

3. Temperature-dependent Fluorescence spectra of blue and yellow dyes

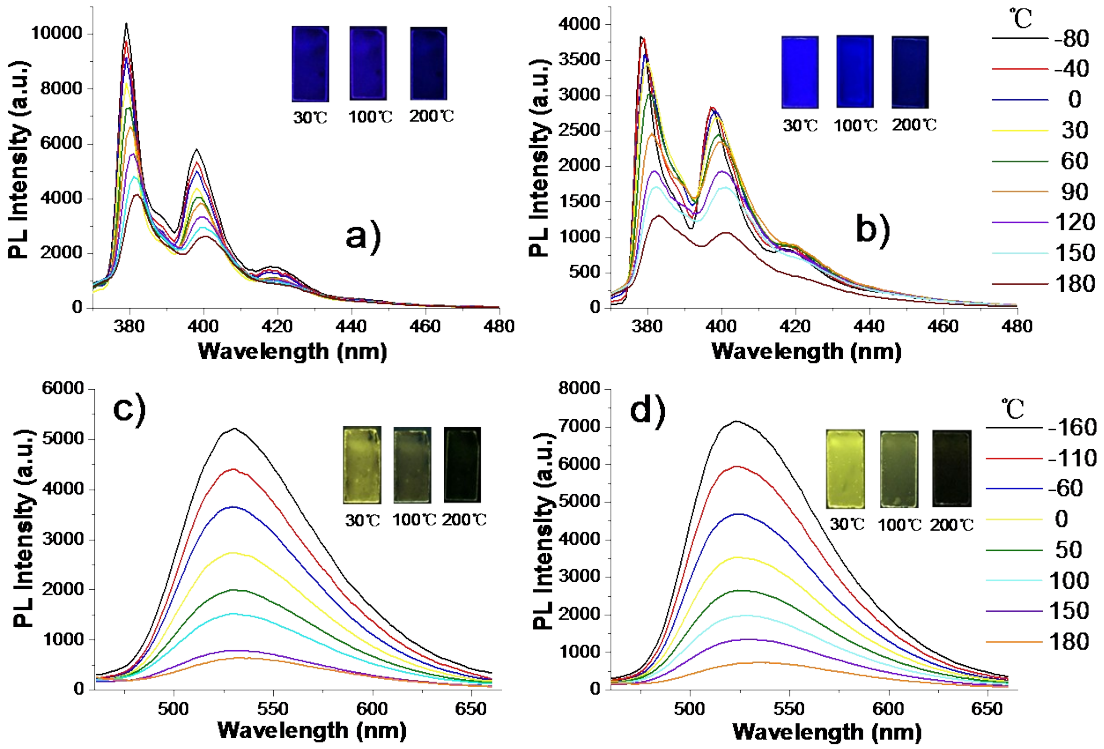

Figure S3. Fluorescence spectra of C2 (a), C3 (b), HBTPy (c) and HBTPhe (d) at various temperatures (inset: fluorescence photograph of the film at 30, 100 and 200 °C, respectively).

4. Excitation spectra of hybrid and isolated films

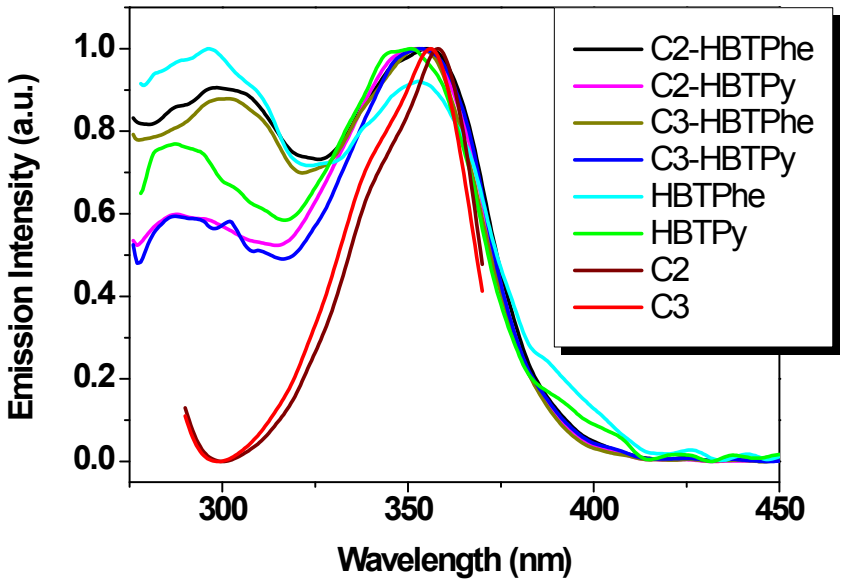

Figure S4. Emission spectra of C2-HBTPhe, C2-HBTPy, C3-HBTPhe, C3-HBTPy films (detected at 520 nm) have been compared with those of the yellow emitters of HBTPhe, HBTPy films (detected at 520 nm) and blue emitter of C2 and C3 films (detected at 400 nm).

5. Temperature-dependent emission spectra of the hybrid films

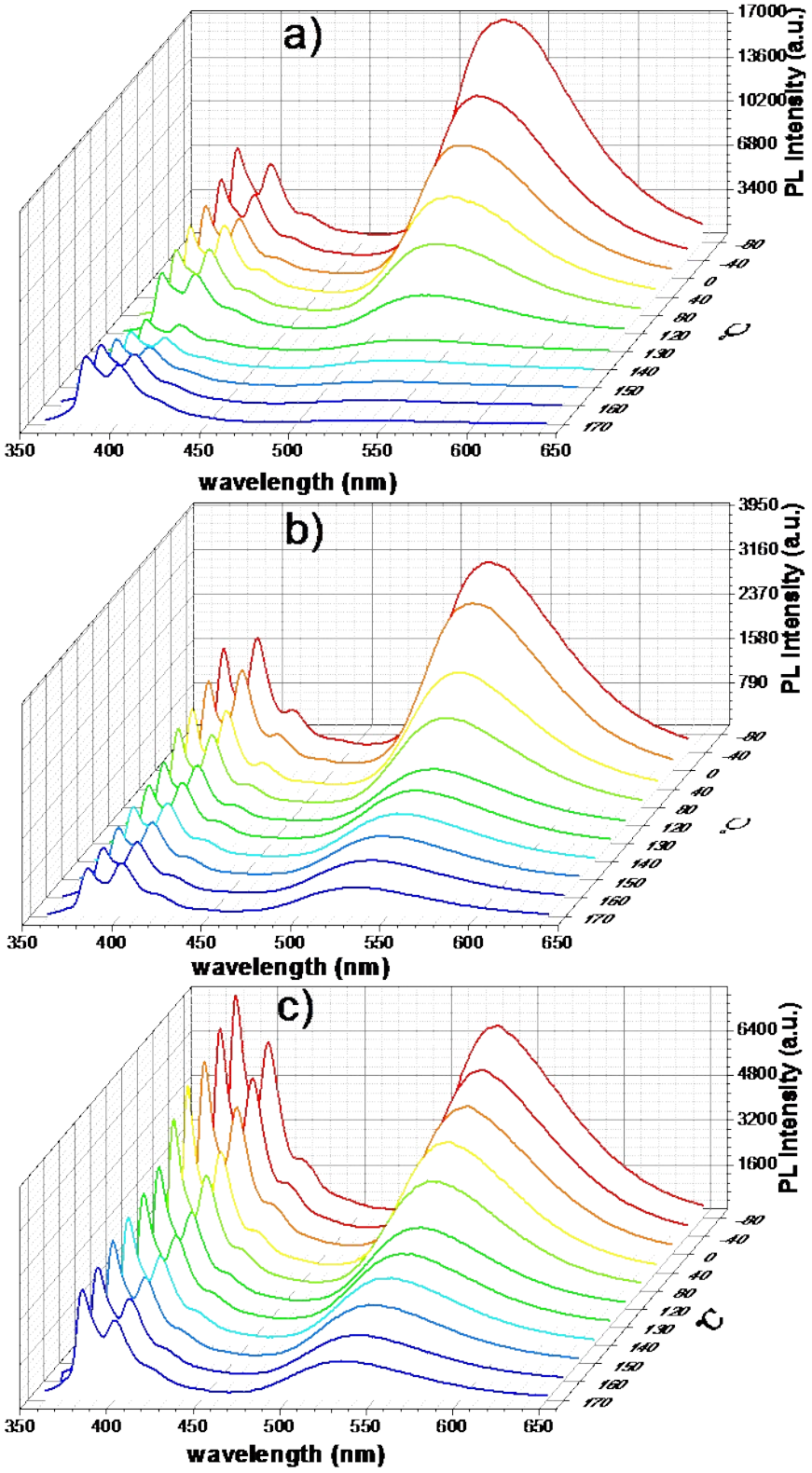

Figure S5. Temperature-dependent emission spectra of the C3-HBTPy (a, wt%: wt%=1: 5), C2-HBTPhe (b, wt%: wt%=1: 6), C3-HBTPhe (c, wt%: wt%=1: 5) film recorded between -80 and 170 ^{o}C (excitation wavelength: 350 nm).

6. Chang of Ib/Iy and CIE chromaticity with temperature

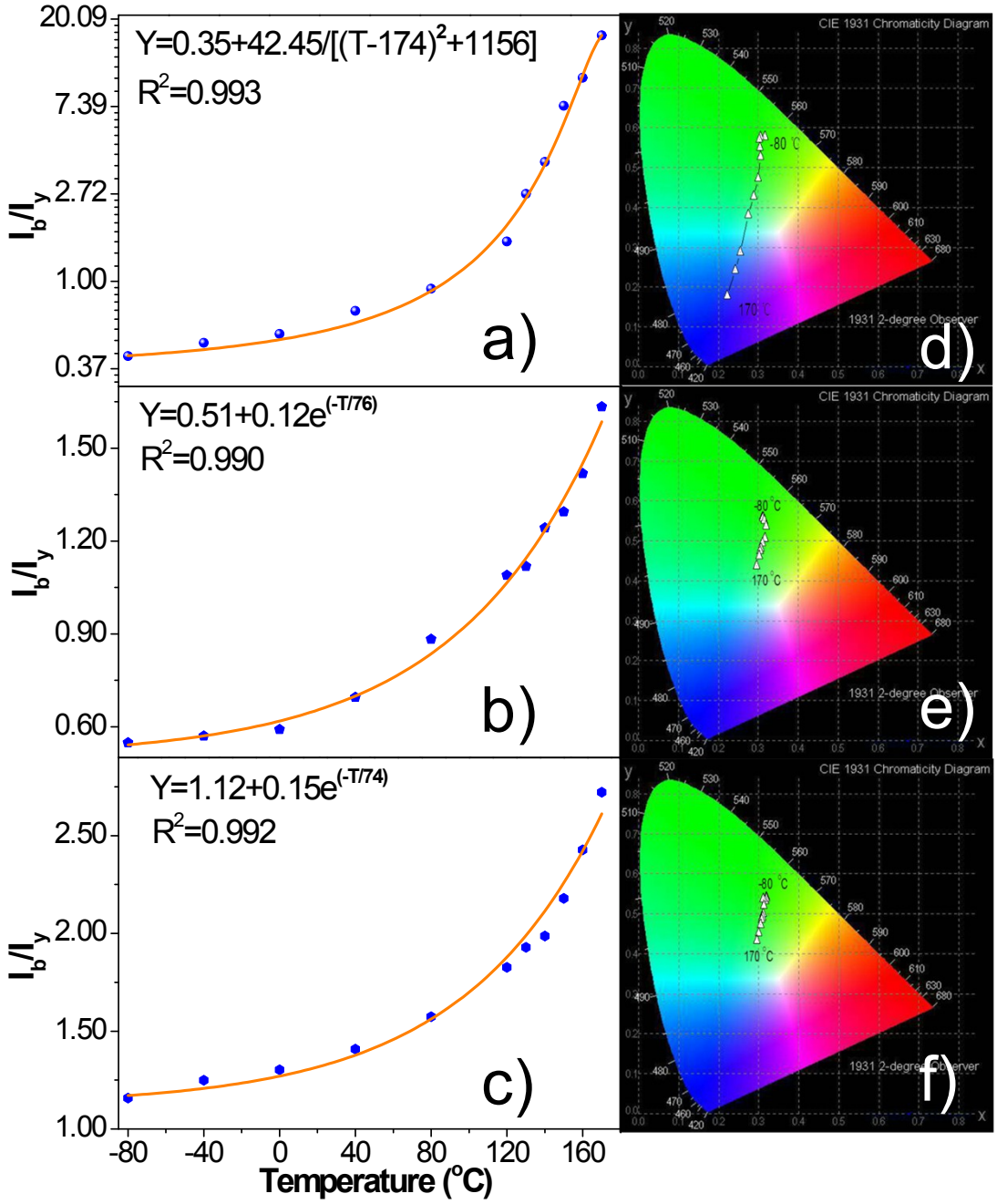

Figure S6. Temperature-dependent fluorescence intensity ratio (I_b/ I_y) and CIE coordinates of the a) C3-HBTPy (a, d), C2-HBTPhe (b, e) and C3-HBTPhe (c,f) hybrid films.