Supporting Information

Luminescent MOF crystals embedded into PMMA/PDMS transparent films as effective NO_2 gas sensors.

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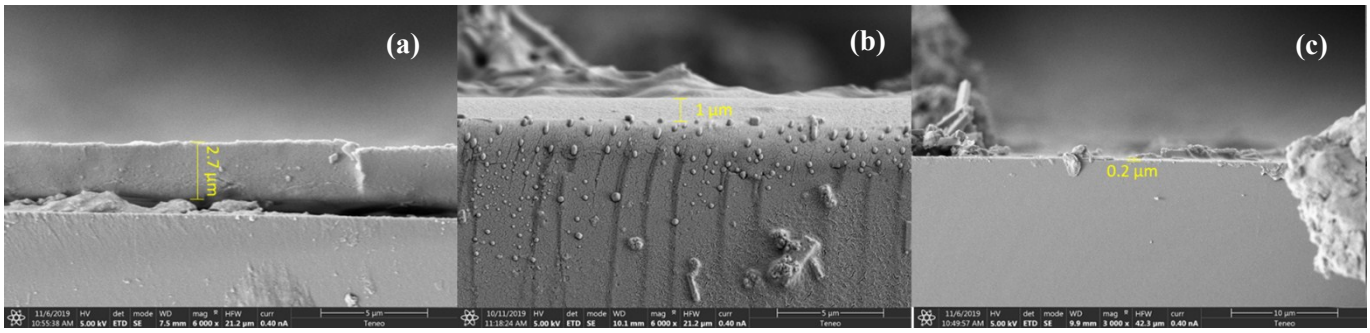

Figure S1: Cross-section of Tb(BTC)@PMMA films spin-coated at (a) 1000 rpm, (b) 3000 rpm and (c) 6000 rpm.

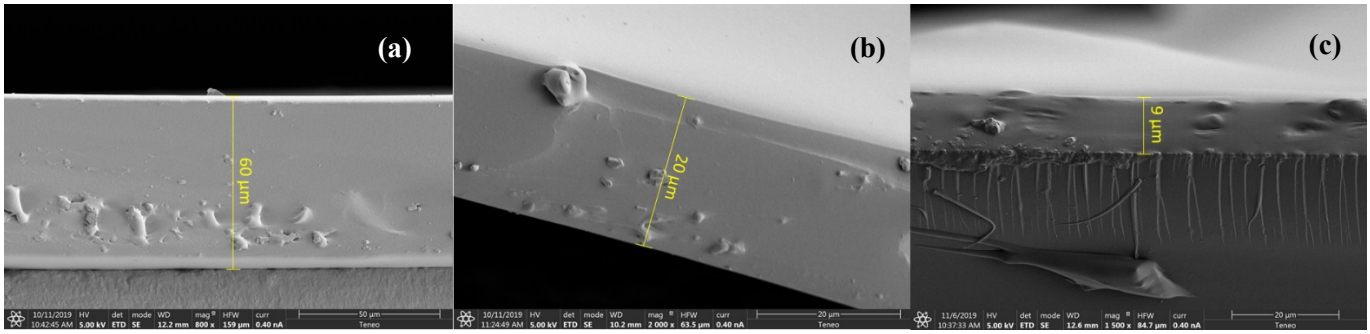

Figure S2: Cross-section of Tb(BTC)@PDMS films spin-coated at (a) 1000 rpm, (b) 3000 rpm and (c) 6000 rpm.

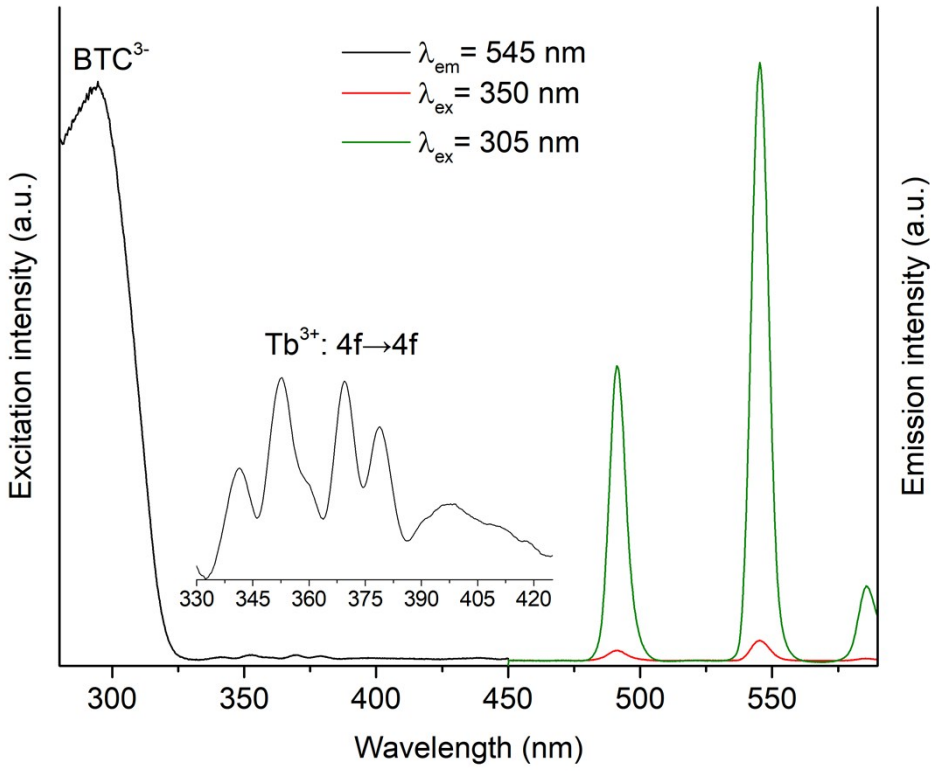

Figure S3: Excitation (black line, λ_{em}=545 nm) and emission spectra (red line, λ_{ex}=350 nm, and green line, λ_{ex}=305 nm) of Tb(BTC) powders. The excitation and emission wavelengths are also labelled in the graph. See main text for further details.

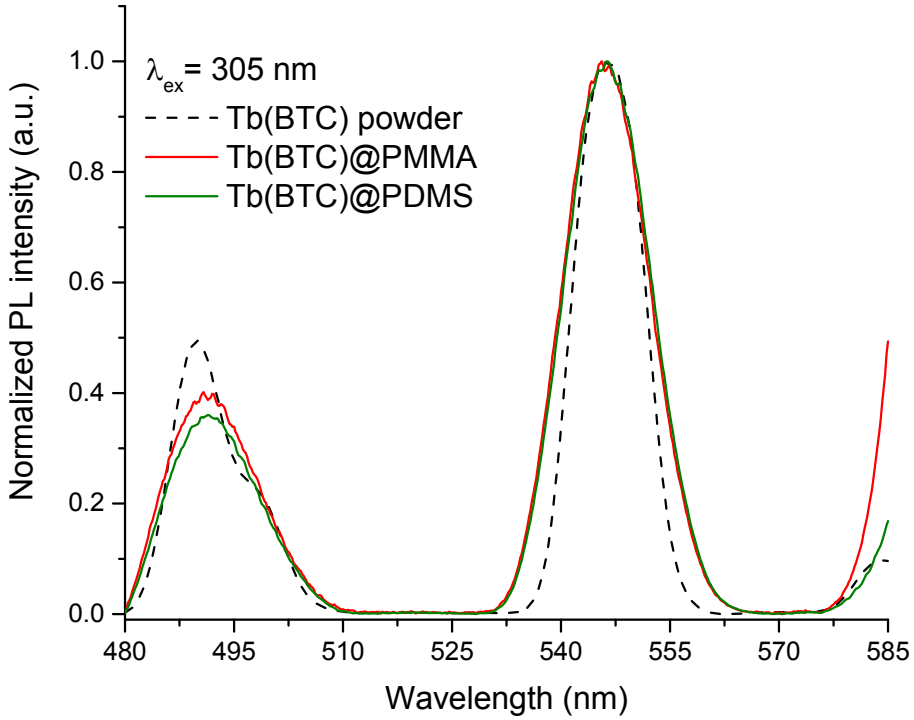

Figure S4: PL emission spectra (λ_{ex}: 305 nm) of Tb(BTC) powder (dotted line), Tb(BTC)@PMMA (red solid line) and Tb(BTC)@PDMS (green solid line).

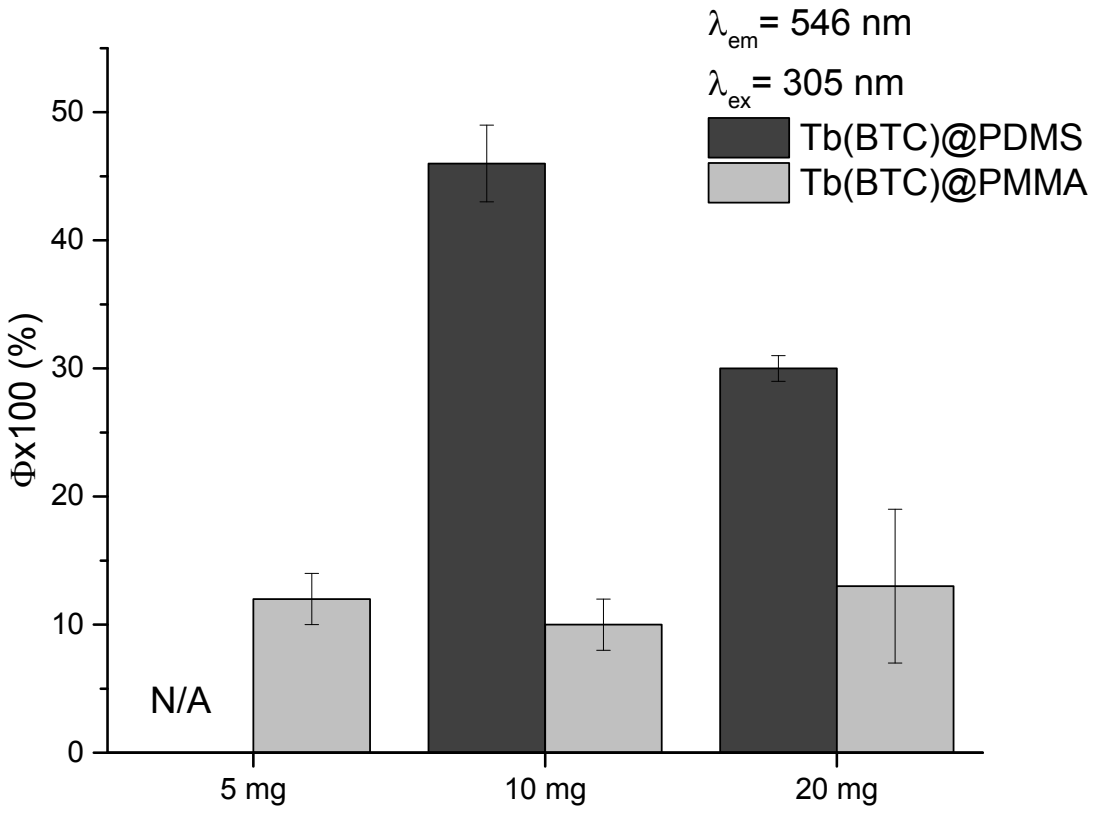

Figure S5: PL quenching of Tb(BTC)PDMS (dark grey bars) and Tb(BTC)@PMMA (light grey bars) films (1000 rpm) obtained using 5, 10 and 20 $mg \cdot g^{-1}$ in PDMS stock solution and 5, 10 and 20 $mg \cdot cm^{-3}$ in PMMA stock solution, under exposure to 50 ppm NO_2 gas.

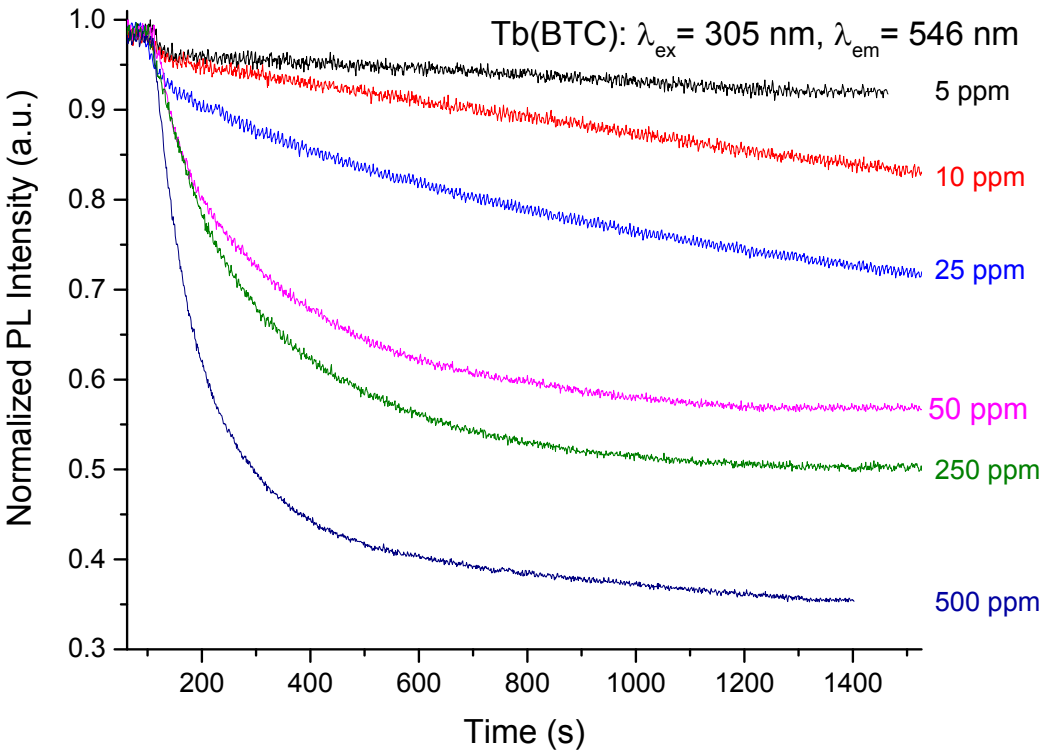

Figure S6: Kinetics of Tb(BTC)@PDMS films sensing responses (PL at 546 nm) under exposure to different NO_2 concentrations (5-500 ppm).