Electronic Supplementary Material (ESI) for Analytical Methods.
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Electronic Supporting Information

For

Facile Synthesis of Highly Luminescent Rod-like Terbium-based Metal-organic Frameworks for Sensitive Detection of Olaquindox

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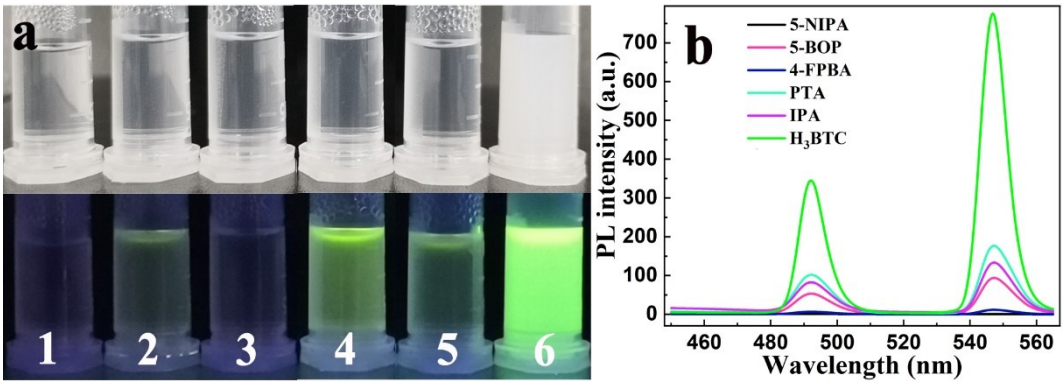

Figure S1 (a) Photographs of the as-prepared terbium-based MOFs in a similar manner using different kinds of organic ligands under daylight (top) and 254 nm UV light (bottom), from 1 to 6: 5-Nitrobenzene-1, 3-dicarboxylic acid (5-NIPA), 3, 5-Dicarboxyphenylboronic acid (5-BOP), 4-Formylphenylboronic acid (4-FPBA), Terephthalic acid (PTA), Isophthalic acid (IPA), benzene-1, 3, 5-tricarboxylic acid (H_3BTC); (b) the PL spectra of the corresponding terbium-based MOFs.

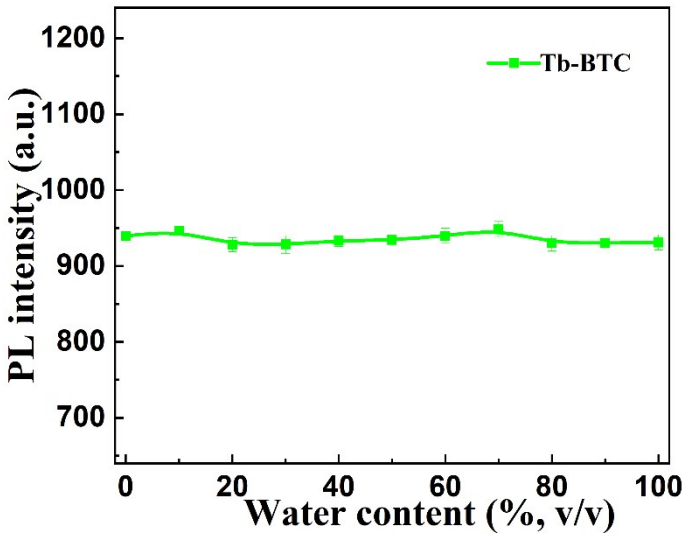

Figure S2 Effect of the different water content exposure on PL intensity of the Tb-BTC MOFs.

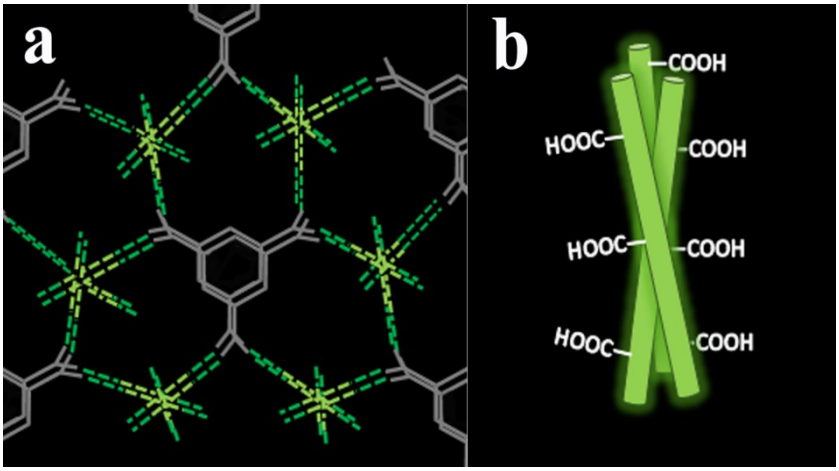

Figure S3 (a) The possible molecular-packing diagram of the Tb-BTC viewed along the c-axis; (b) schematic description of the rod-like terbium-based MOFs.

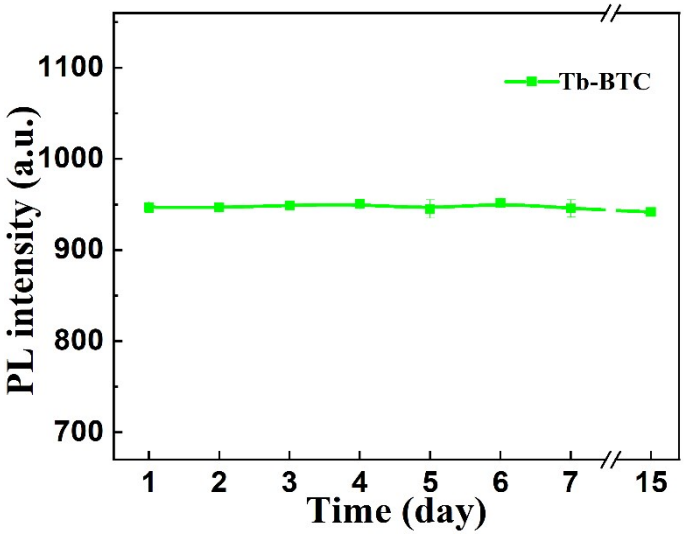

Figure S4 The long term stability of the PL property of the Tb-BTC.

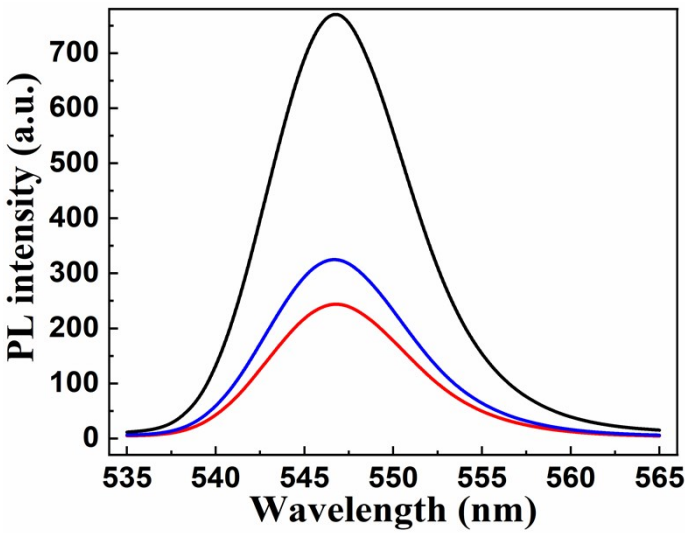

Figure S5 Verification of the binding of OLA molecules on the surface of Tb-BTC. The black curve, the Tb-BTC suspension; the red curve, the mixture of the Tb-BTC and OLA; the blue curve, the resuspension solution of the precipitates obtained from the mixture of the Tb-BTC and OLA by centrifuge; Concentration: Tb-BTC, 0.2 mg/mL; OLA, 1.0 mM; pH 10.0.

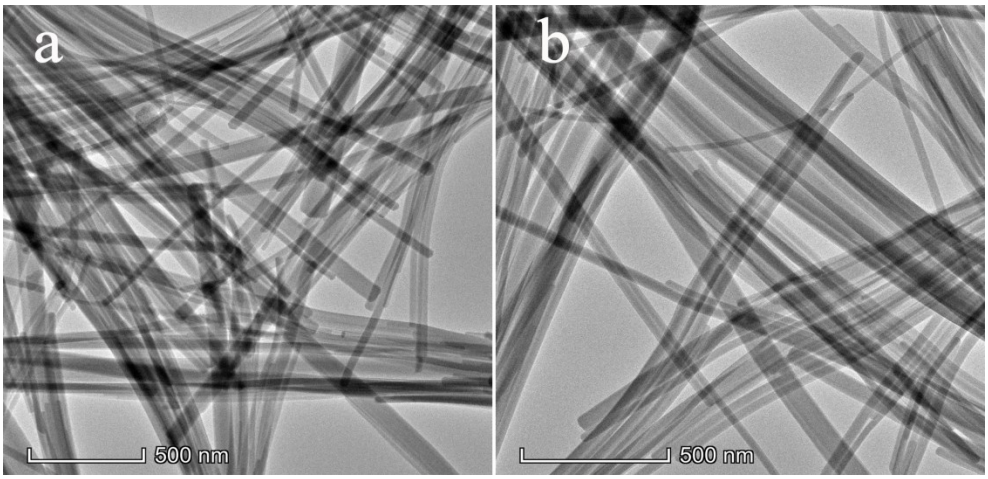

Figure S6 TEM images of the as-prepared Tb-BTC MOFs in the absence (a) and presence of 50.0 μM of OLA in the BR buffer (pH 10.0).

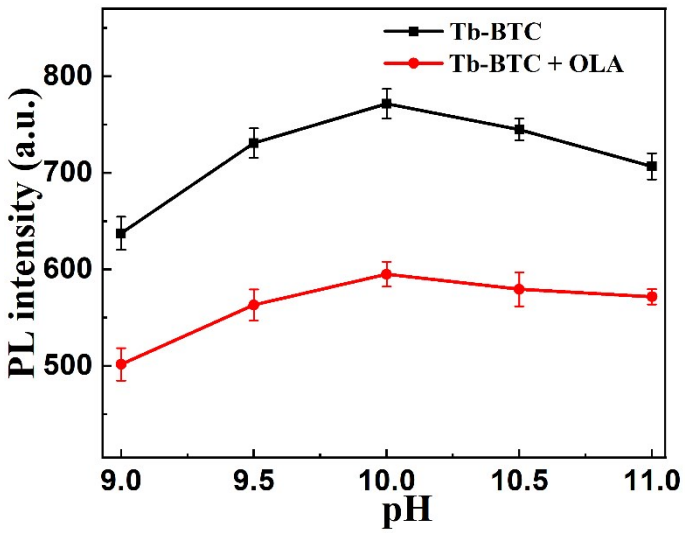

Figure S7 Effect of pH on the PL intensity of Tb-BTC MOFs in the absence (black curve) and presence (red curve) of OLA. Concentration: Tb-BTC, 0.2 mg/mL; OLA, 10.0 μM.

Table S1 A brief summary of various methods for detection of OLA.

Method	Material used	Sample	Linear range	LOD	Measure time (min)	Reference
FELISA	BSA-AuNCs	Feed	1.0 – 150 μg/kg	0.68 μg/kg	1.5 h	[1]
electrochemical	spSWCNTs	pork	0.1 - 500 nM	30.0 pM	25 min	[2]
FLISA	QDs	pork	0.1 – 10.0 ng/mL	0.07 μg/L	1 h	[3]
chemiluminescence	molecularly imprinted	Feed	0.02 – 1.0. μg/mL	7 ng/mL	25 min	[4]
ELISA		Feed	1.0 – 90.0 μg/L	1μg/kg	1.25 h	[5]
immunochromatography	FMs	foodstuffs	sigmoid curves	0.9 μg/kg	15 min	[6]
immunochromatographic lateral flow test strips	colloidal gold	pork	0.31 - 29.06 ng/mL	0.31 ± 0.07 μg/kg	5 - 8 min	[7]
		urine	0.27 - 29.30 ng/mL	0.27 ± 0.08 μg/kg		
LC - MS/MS	IAC	Fish	0.5 – 100.0 μg/L	0.01 μg/kg	7 min	[8]
UPLC-MS/MS	HLB cartridge	Feed	0.025 – 1.0 mg/kg	0.015 mg/kg	6 min	[9]
GICA	AuNPs	Feed	0.9 - 43.62 μg/L	0.46 μg/L	5 min	[10]
Fluorescent	Tb-BTC	Feed/Pork/Fish	1.0 – 1000.0 μM	20.6 nM (4.87 ng/mL)	5 min	This work

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