

**A novel cucurbit[6]uril-based supramolecular coordination assembly  
as a multiresponsive luminescent sensor for Fe<sup>3+</sup>, Cr<sub>2</sub>O<sub>7</sub><sup>2-</sup> and  
isoquinoline antibiotics in aqueous medium**

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Crystallographic data for **1** has been deposited with the Cambridge Crystallographic Data Centre with No. CCDC 1903202. Copies of the data can be obtained free of charge via the Internet at <http://www.ccdc.cam.ac.uk/conts/retrieving.html> or by post at CCDC, 12 Union Road, Cambridge CB2 1EZ, U.K. (Fax: 44-1223336033, E-mail: [deposit@ccdc.cam.ac.uk](mailto:deposit@ccdc.cam.ac.uk)).

**Table S1.** Crystal data and structure refinement for **1**

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Compound

[Zn

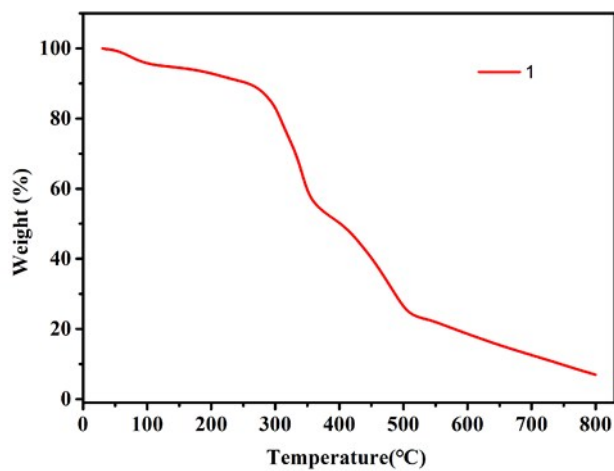
(ACA)<sub>4</sub>]□CB[6]□[NH<sub>2</sub>(CH<sub>3</sub>)<sub>2</sub>]□8H<sub>2</sub>O

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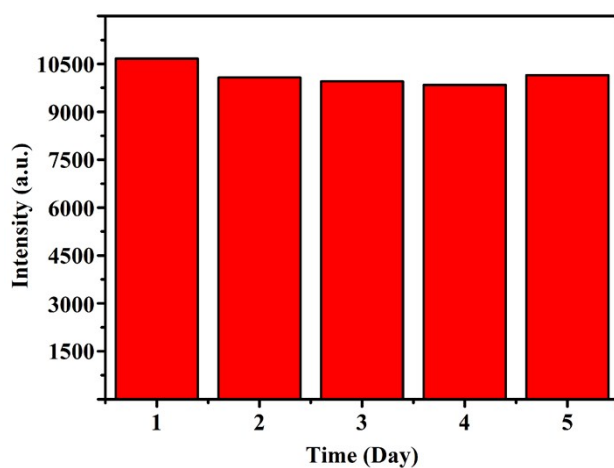
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Empirical formula	C <sub>100</sub> H <sub>104</sub> N <sub>26</sub> O <sub>28</sub> Zn
Formula weight	2183.46
Crystal system	Monoclinic
Space group	C2/c
a (Å)	17.621(3)
b (Å)	21.874(3)
c (Å)	25.800(4)
α (°)	90
β (°)	105.875(4)
γ (°)	90
V (Å <sup>3</sup> )	9565(3)
Z	4
D <sub>c</sub> /(g cm <sup>-3</sup> )	1.516
μ/(mm <sup>-1</sup> )	0.355
F(000)	4560
θ range (°)	2.482-28.391
R <sub>int</sub>	0.0774
Parameters	685
T (K)	298
goodness of fit	1.082
Limiting indices	-23 ≤ h ≤ 23
	-29 ≤ k ≤ 29
	-34 ≤ l ≤ 34
R indices [I > 2σ(I)]	R <sub>1</sub> =0.0795, wR <sub>2</sub> =0.1923
R indices (all data)	R <sub>1</sub> =0.0933, wR <sub>2</sub> =0.2034

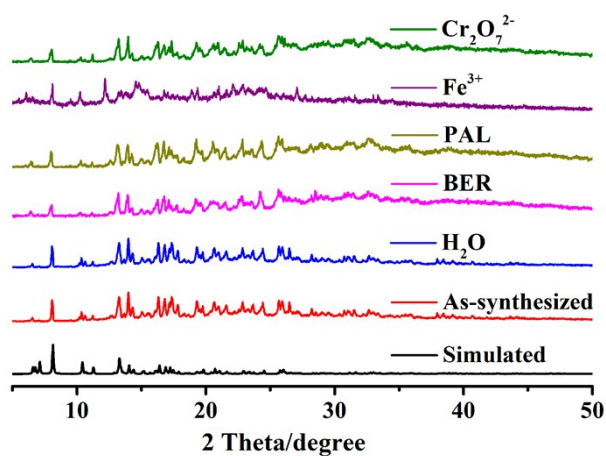
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**Fig. S1** TGA curves of **1** under an atmosphere of  $N_2$  ( $5^\circ C\ min^{-1}$ ).



**Fig. S2** Fluorescence spectra of **1** dispersed in water with different times.



**Fig. S3** PXRD patterns of **1** simulate, as-synthesized, and after immersed in  $H_2O$ ,  $Fe^{3+}$ ,  $Cr_2O_7^{2-}$ , PAL and BER for comparison.

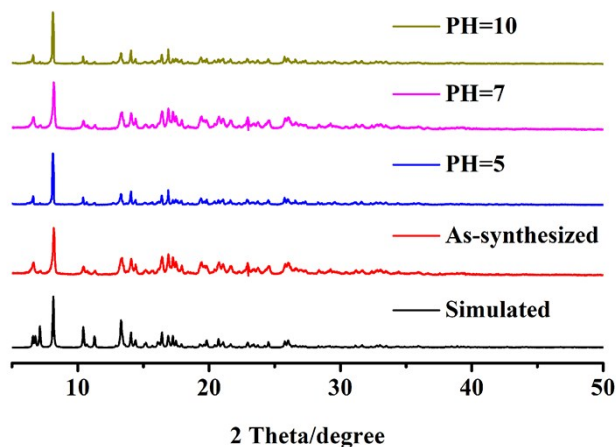


Fig. S4. PXRD patterns of **1** simulate, as-synthesized, and after treatment in acidic/alkaline aqueous solutions.

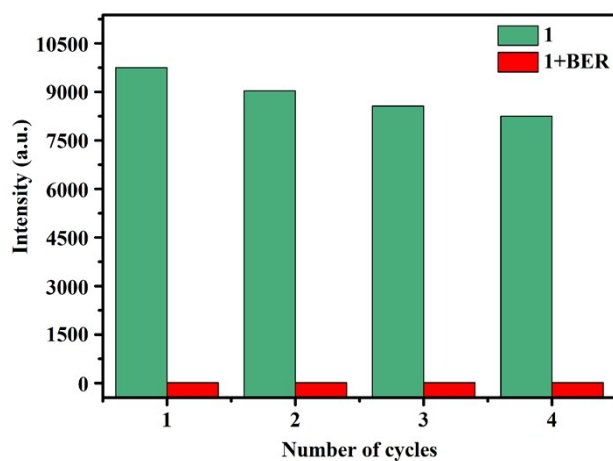


Fig. S5 Recyclability tests of **1** implemented with BER.

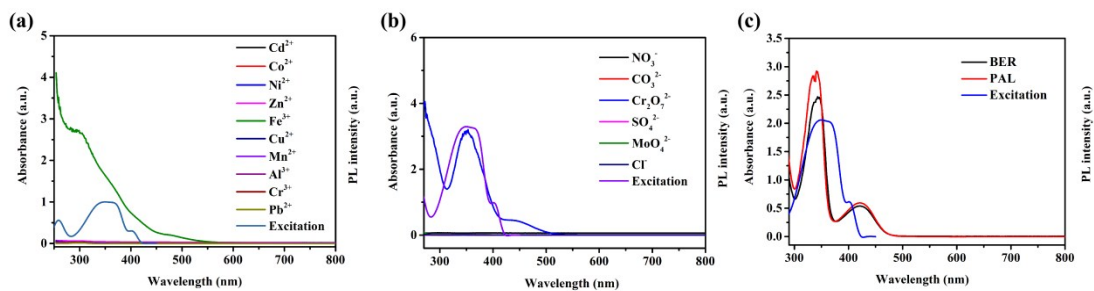


Fig. S6 UV-vis absorption spectra of different metal ions (a), inorganic anion (b),

antibiotics (c) in water, and excitation spectrum of **1**.

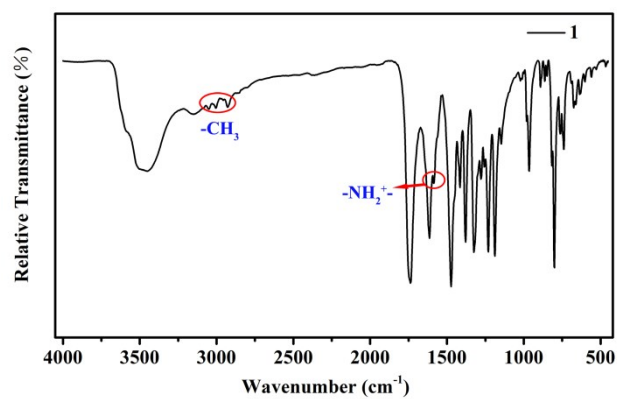


Fig. S7 IR spectra of **1**