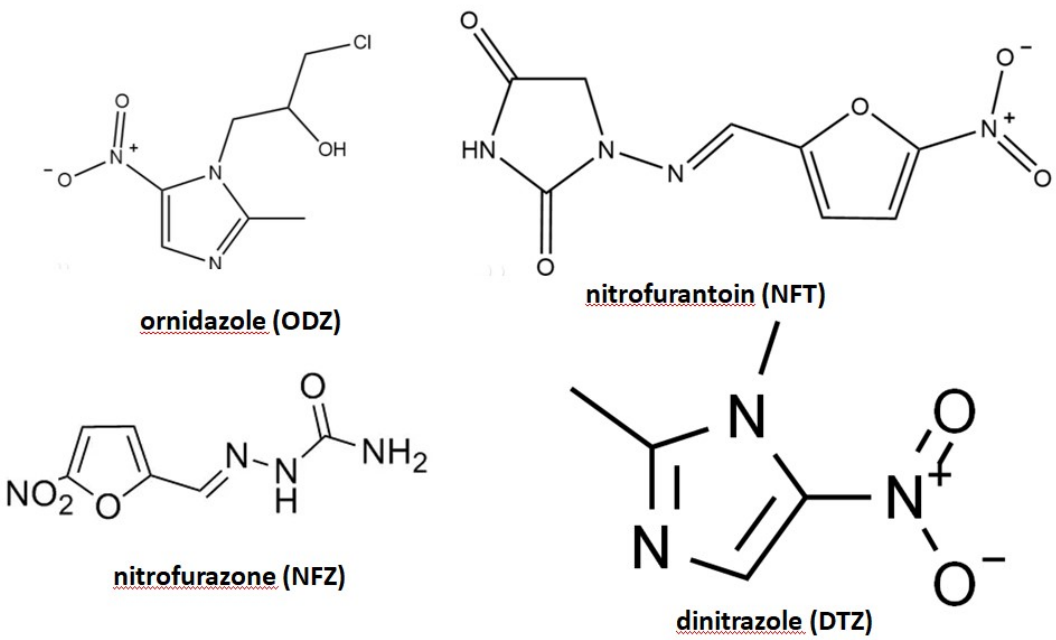
Electronic Supplementary Material (ESI) for CrystEngComm.

4,4'-bis(imidazolyl)biphenyl appended Cd(II) coordination polymer: A dual functional material for antibiotic sensing and photodegradation



Scheme S1 Chemical structures of antibiotics investigated in this work

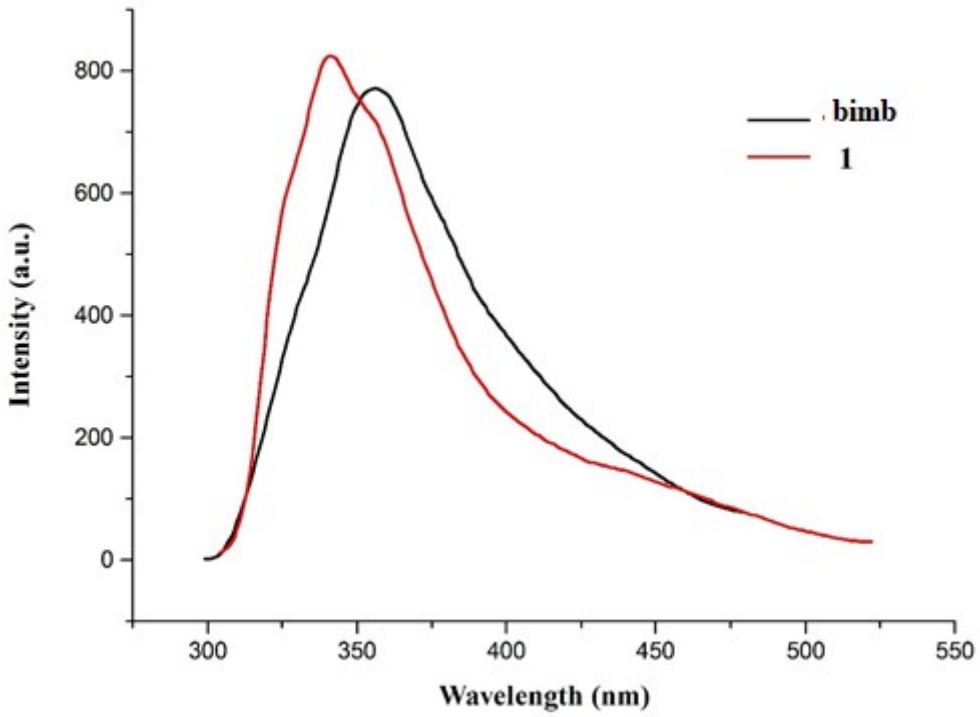


Fig. S1 Photoluminescence spectra for the bimb ligand and **1**.

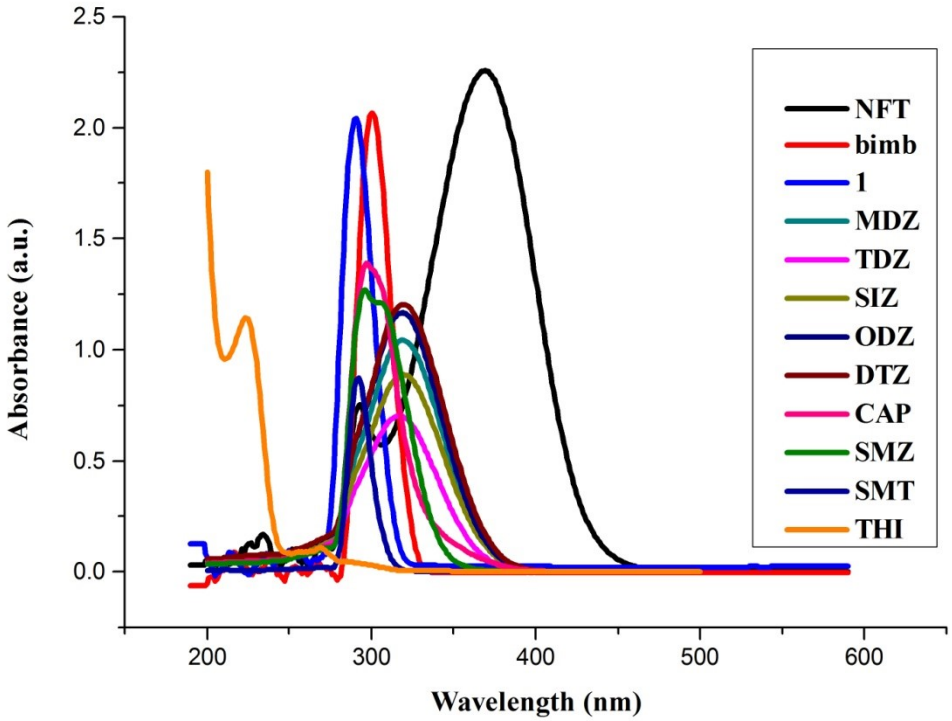


Fig. S2 UV-vis spectra for the bimb ligand, **1** and NFT.

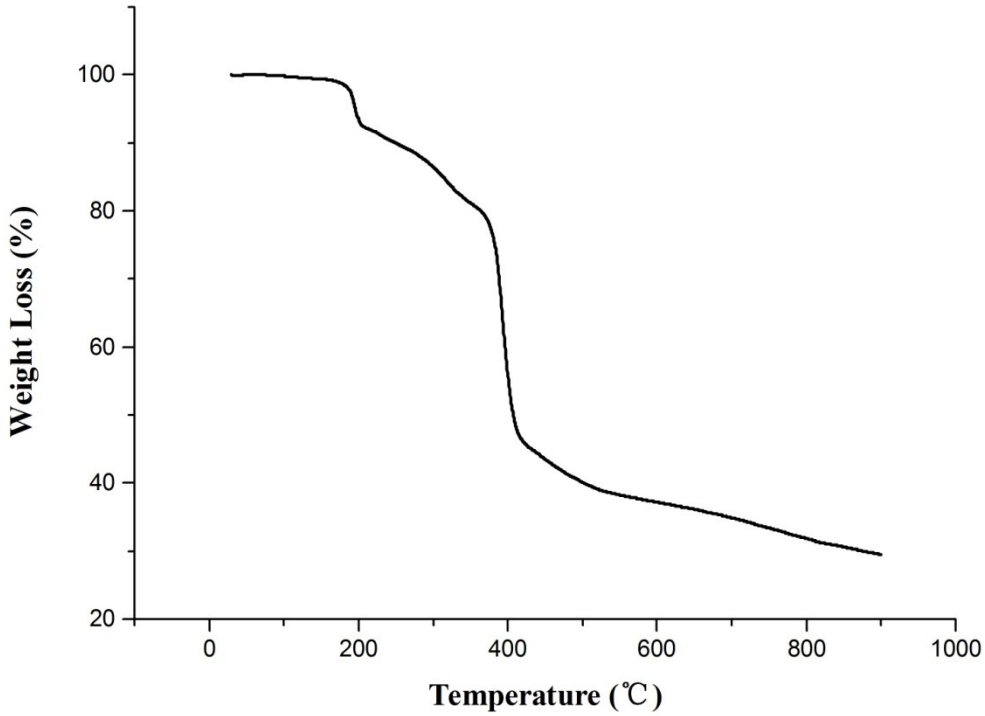


Fig. S3 TGA plot for **1**

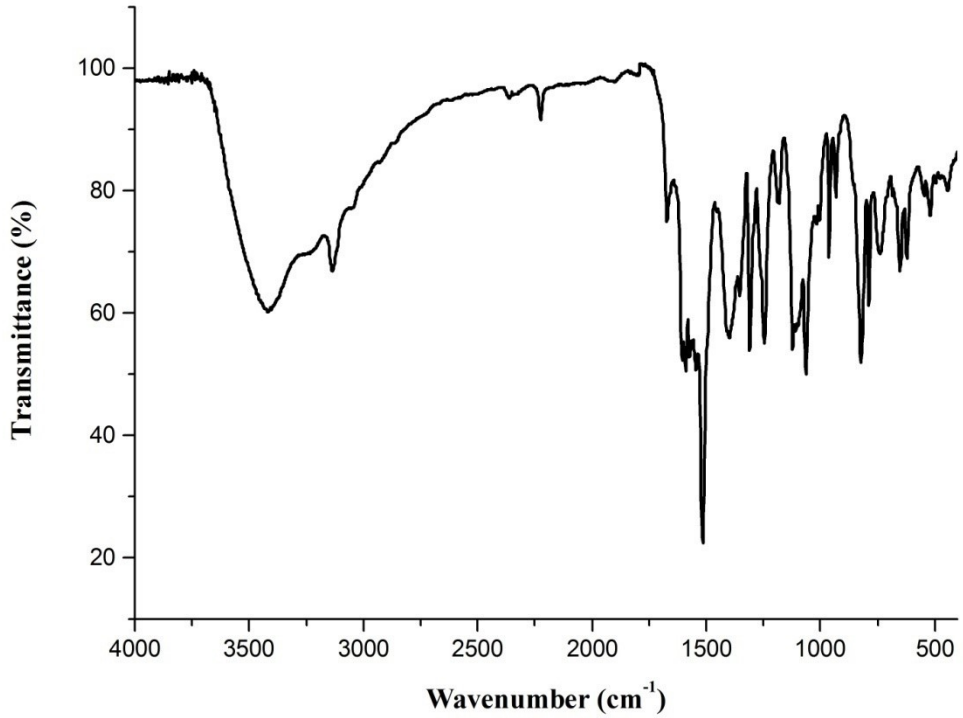


Fig. S4 The FTIR spectra of **1.**

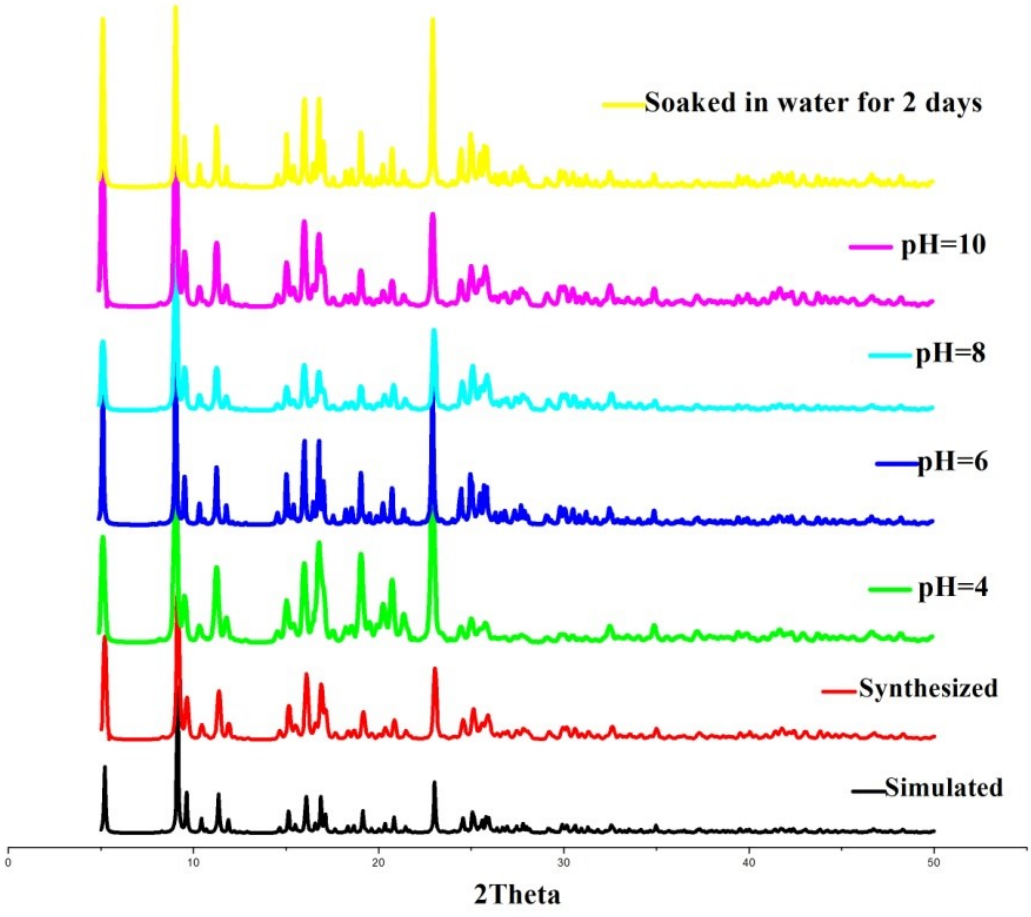


Fig. S5 Simulated and experimental PXRD patterns for **1** at different conditions viz. at different pH and after soaking in aqueous medium for 2 days.

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

Parameter	**1**
Formula	$C_{80}H_{68}Cd_3Cl_2N_{16}O_{16}$
Formula weight	1917.63
Crystal system	monoclinic
Space group	C2/c
Crystal color	yellow
a，[Å]	34.707(2)
b，[Å]	11.0408(7)
c，[Å]	21.7951(16)
α，[°]	90
β，[°]	102.2020(10)
γ，[°]	90
V，Å^3	8163.0(10)
Z	4
ρ_{calcd}，g/cm^3	1.560
μ，mm^{-1}	0.916
F(000)	3864
θRange，deg	2.46-22.68
Reflection collected	9329
Goodness-of-fit on F^2	1.028
R_1，$wR_2(I>2\sigma(I))^*$	0.0648, 0.1755
R_1，wR_2(all data)**	0.1231, 0.2210

$^*R=\sum(F_o-F_c)/\sum(F_o)$，$^{**}wR_2=\{\sum[w(F_o^2-F_c^2)^2]/\sum(F_o^2)^2\}^{1/2}$.

Table S2. Selected bond distances (Å) and angles (°) of **1**

Cd(1)-O(1)	2.360(6)	Cd(1)-O(2)	2.582(6)
Cd(1)-O(3A)	2.567(7)	Cd(1)-O(4A)	2.382(7)
Cd(1)-N(1)	2.315(6)	Cd(1)-N(4B)	2.305(5)
Cd(1)-N(5)	2.330(6)	Cd(2)-O(2A)	2.319(5)
Cd(2)-O(2)	2.319(5)	Cd(2)-O(3)	2.288(5)
Cd(2)-O(3A)	2.288(5)	Cd(2)-N(7A)	2.199(3)
Cd(2)-N(7)	2.199(3)		
O(1)-Cd(1)-O(2)	51.69(17)	O(1)-Cd(1)-O(3A)	123.53(18)
O(1)-Cd(1)-O(4A)	170.1(2)	N(1)-Cd(1)-O(2)	88.8(2)
N(1)-Cd(1)-N(4B)	174.8(2)	O(1)-Cd(1)-N(5)	92.2(2)
O(2)-Cd(2)-O(2A)	180.0(2)	O(3)-Cd(2)-O(2A)	82.0(2)
O(2)-Cd(2)-O(3)	98.0(2)	O(2)-Cd(2)-N(7A)	92.1(4)
O(3)-Cd(2)-N(7A)	89.8(5)	N(7)-Cd(2)-N(7A)	180.0(5)

Symmetry codes: A:0.5-x，1.5-y，1-z; B:-0.5+x，0.5+y，z.