Supporting Information

Influence of Interpenetration in Diamondoid MOFs on the Photoreactivity and Sensing Properties

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Table S1. Crytal Data for 3 (CCDC 1456992)

	3
formula	$C_{38}H_{42}N_4O_6Zn$
formula weight	716.12
crystal system	monoclinic
space group	*C*2/c
a (Å)	31.3256(6)
b (Å)	5.88880(10)
c (Å)	20.4485(4)
α (°)	90
β (°)	102.229(2)
γ (°)	90
V (Å^3)	3686.54(12)
Z	4
D_{calc}(g/cm^3)	1.290
μ (mm^{-1})	0.716
$2\theta_{max}$ (°)	52.00
reflections collected	27366
independent reflections	9989 (R_{int} = 0.0311)
goodness-of-fit on F^2	1.072
R_1, wR_2 [$I > 2\sigma(I)$]	0.0318, 0.0792
R_1, wR_2 (all data)	0.0355, 0.0813

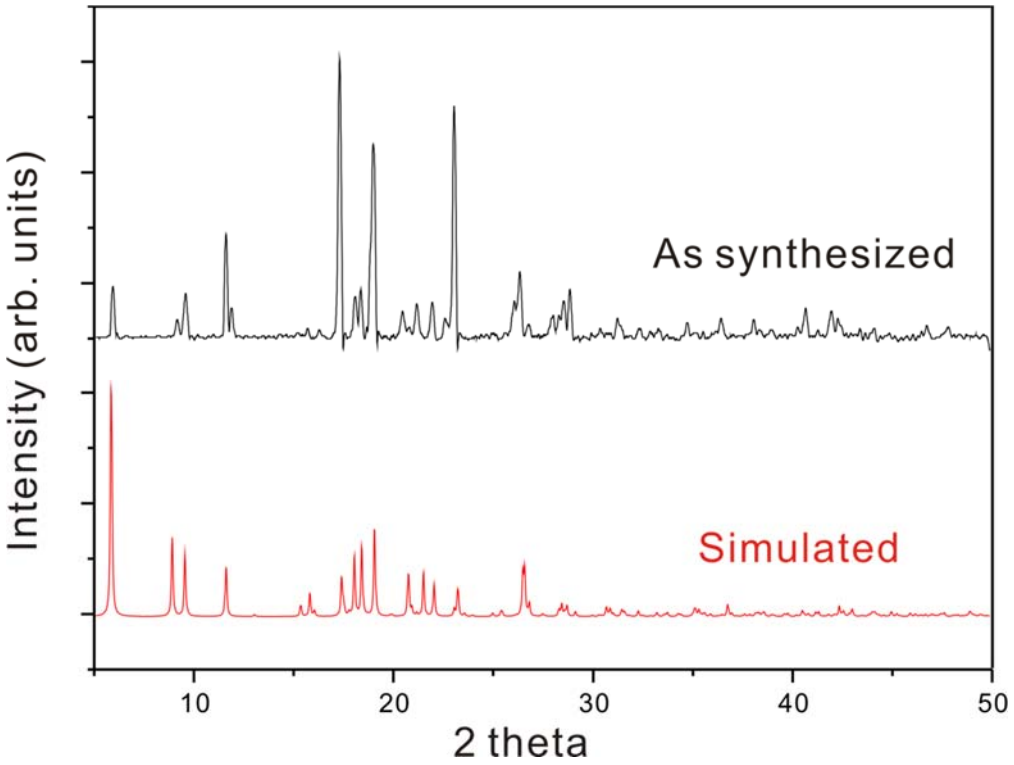


Figure S1. Comparison of PXRD patterns for **3**: (top) as synthesized and (bottom) simulated from the single crystal X-ray data. The deviations in these PXRD patterns may be due to the change of phase due to solvent loss during grinding during sample preparation.

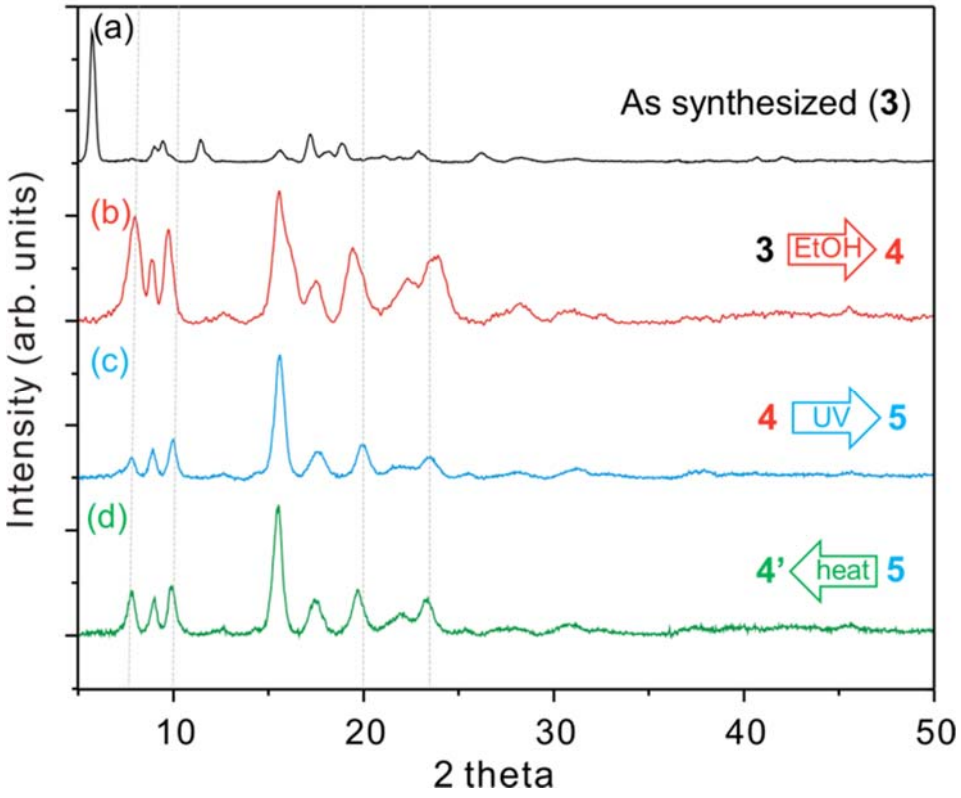


Figure S2. PXRD patterns for (a) **3**, (b) **4** (crystals of **3** after immersion in EtOH for 2 days), (c) **5** (crystals of **4** after UV irradiation for 2 days) and (d) **4'** (crystals of **5** after heat for 12 h.

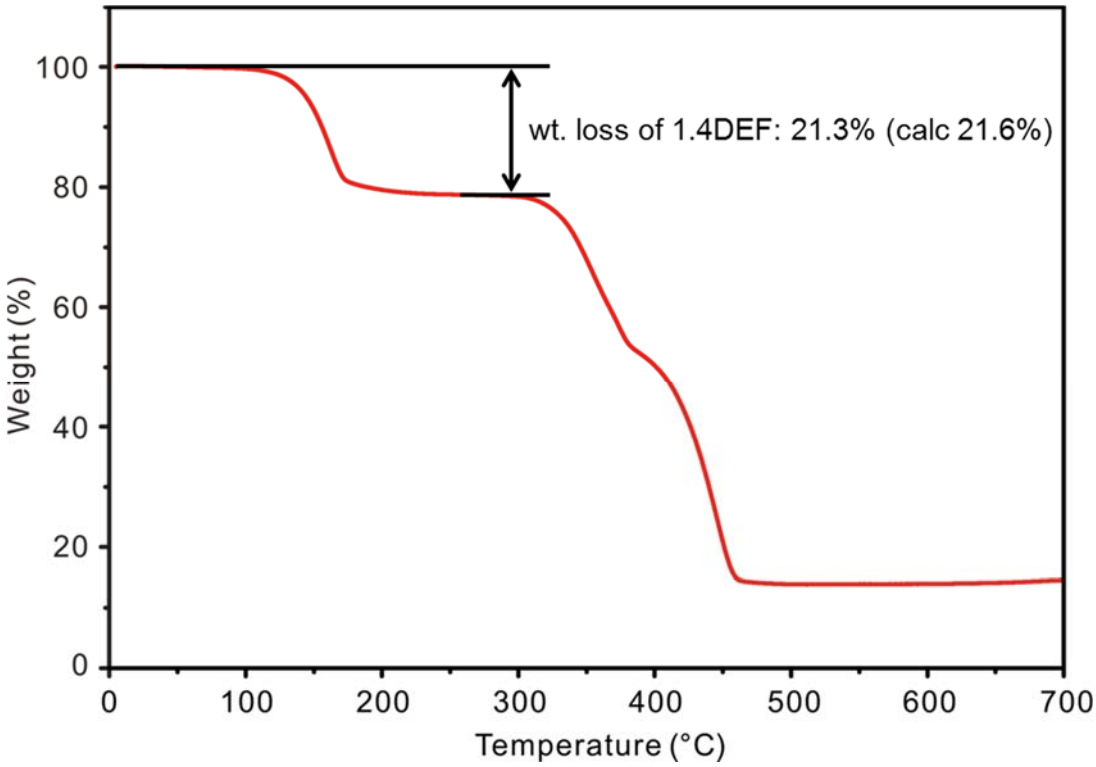


Figure S3. TGA curve of **3** with heating rate of 5 °C·min^{-1} under N_2 flow.

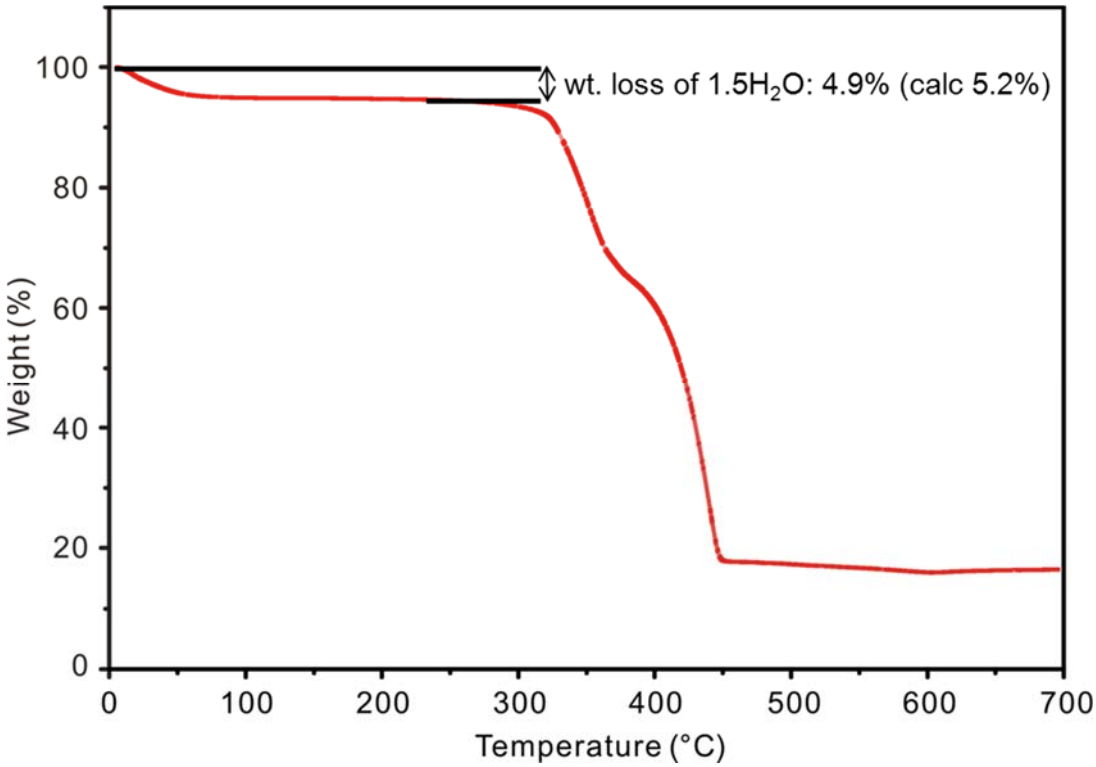


Figure S4. TGA curve of **4** with heating rate of 5 °C·min^{-1} under N_2 flow.

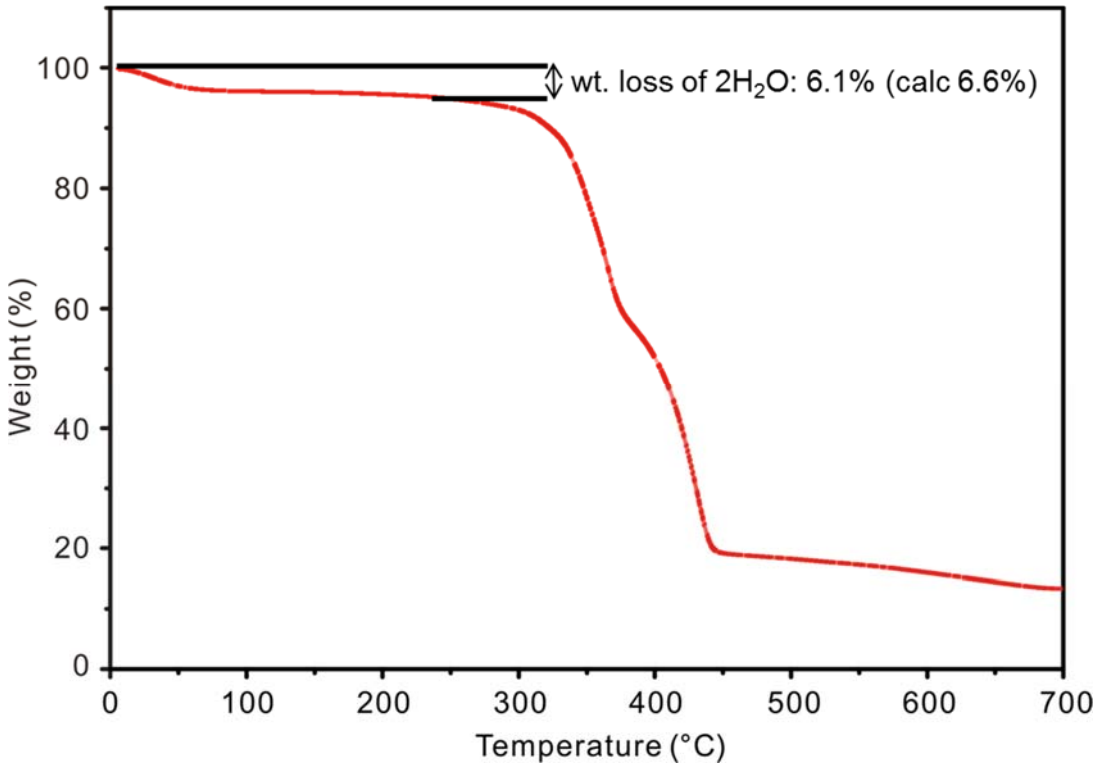
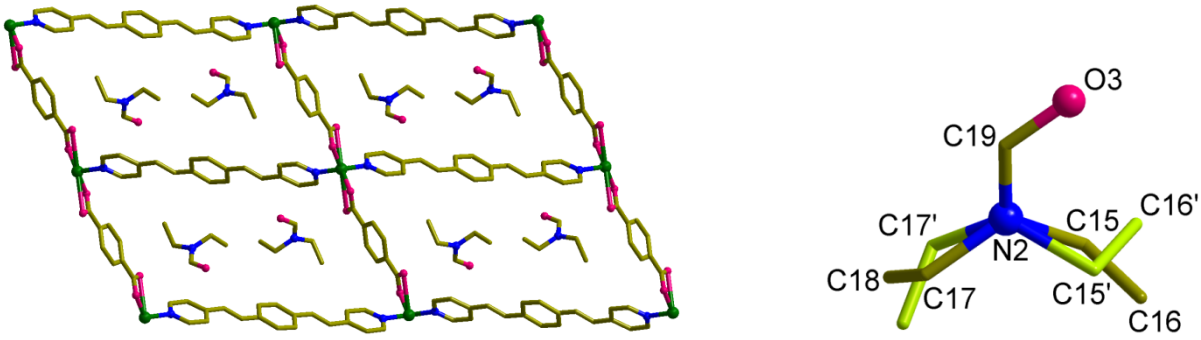


Figure S5. TGA curve of **5** with heating rate of 5 °C·min^{-1} under N_2 flow.



(a) (b)

Figure S6. Structure of **3**: (a) A portion of the structure showing the arrangement of the guest DEF molecules. (b) Disordered DEF molecule.

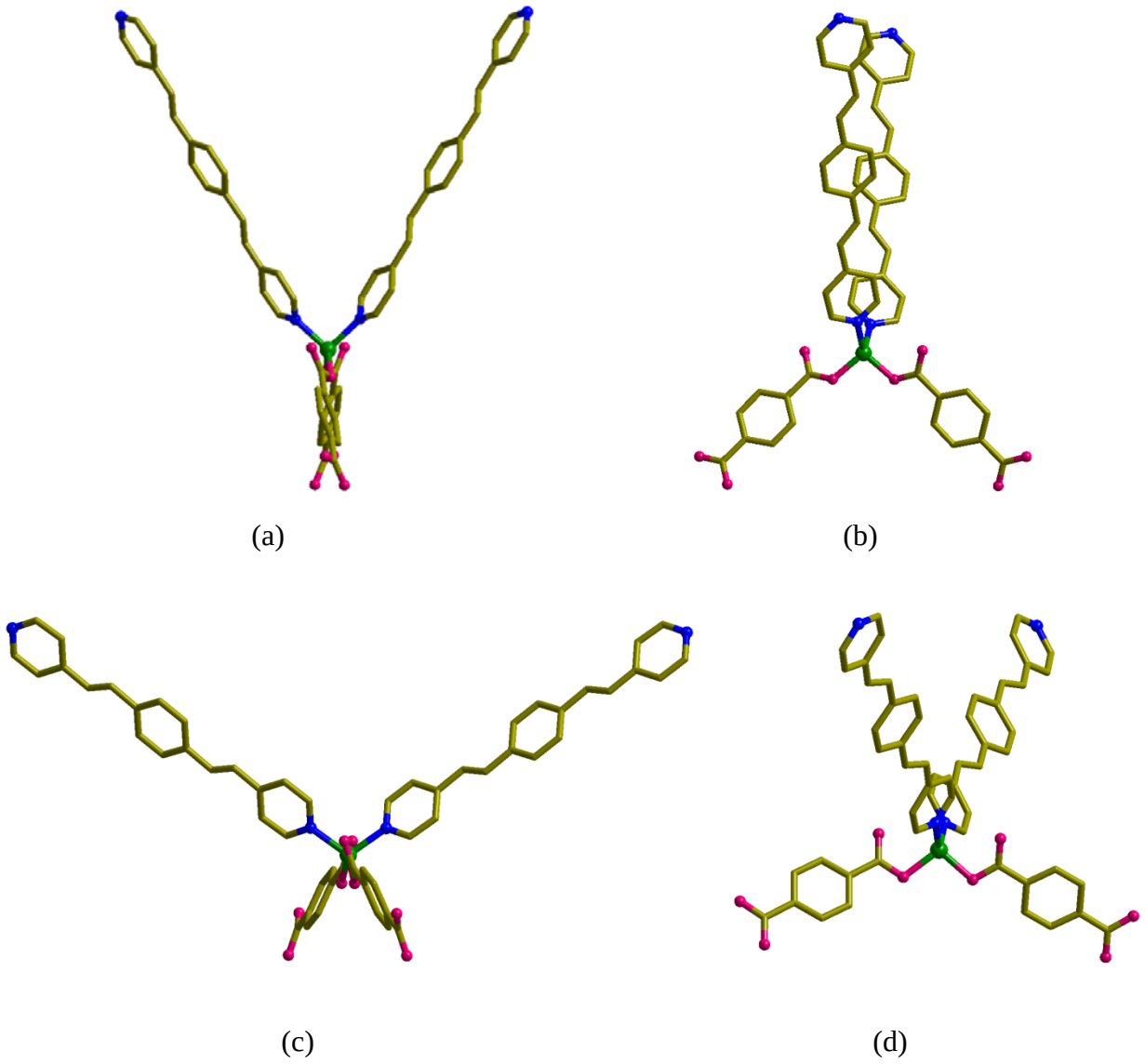
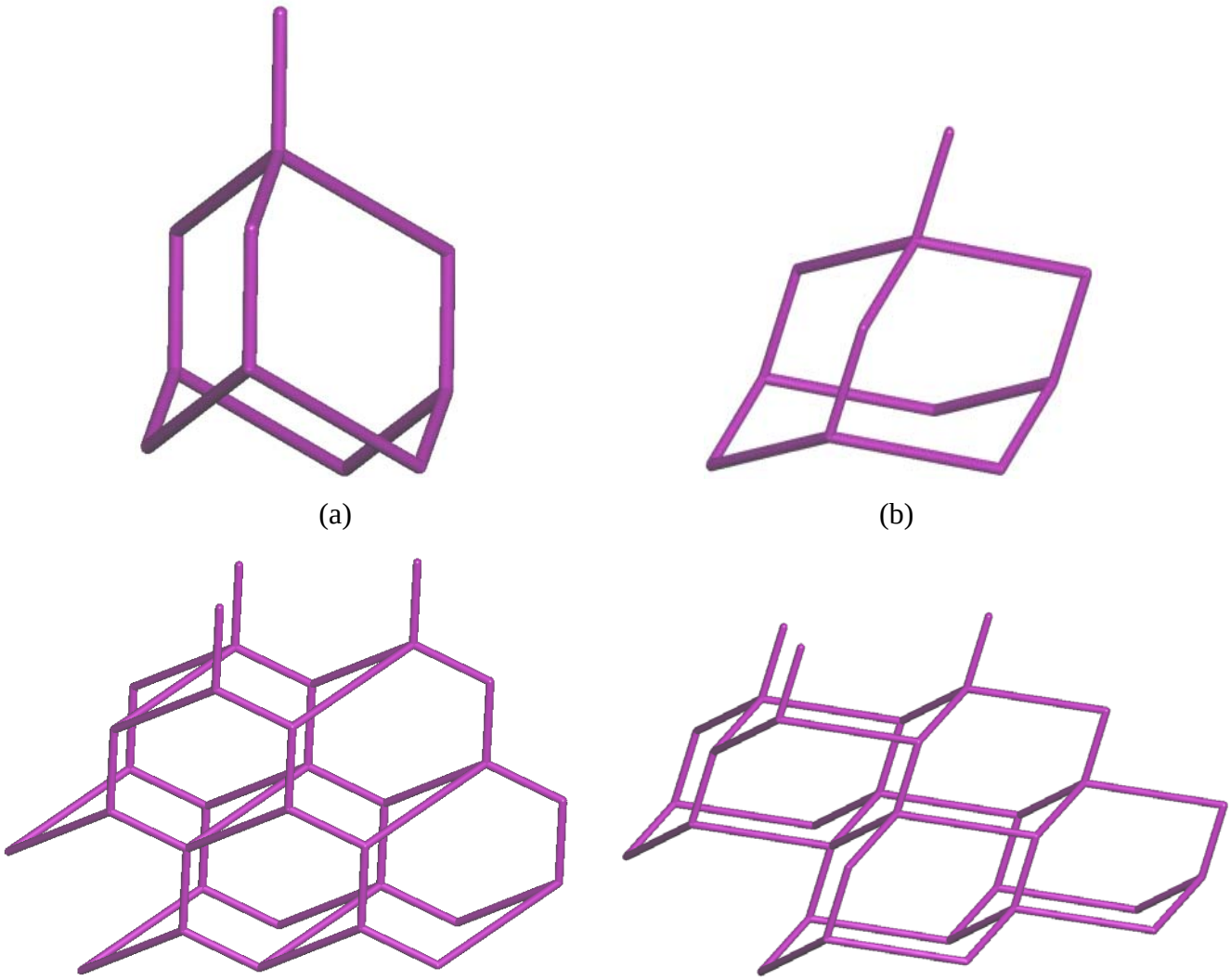


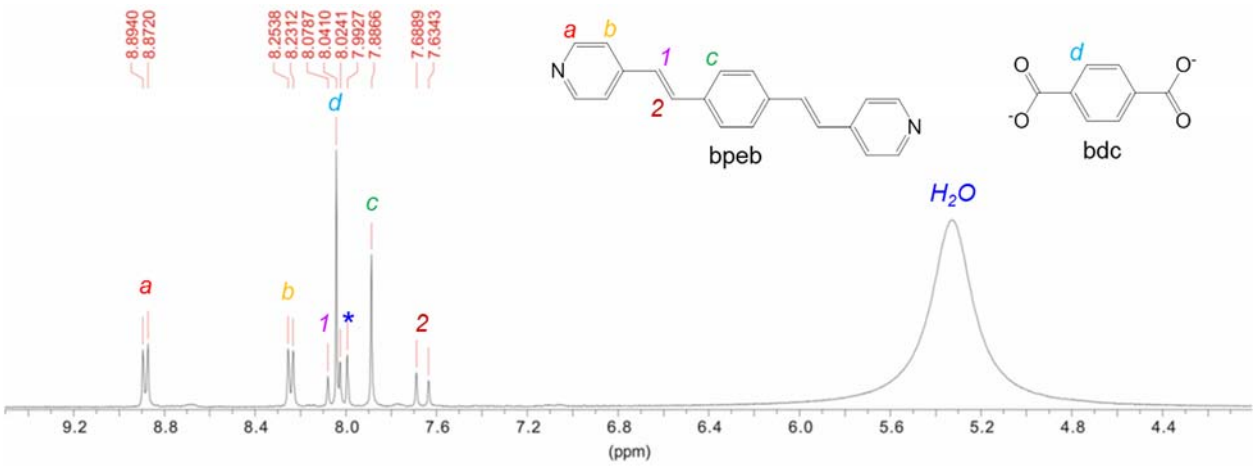
Figure S7. The structural comparison of coordination environments in (a) & (b) **1** and (c) & (d) **3**. The slip-stacked alignment arises from the relative orientations of the adjacent bpeb ligands which is governed by N-Zn-N angles.



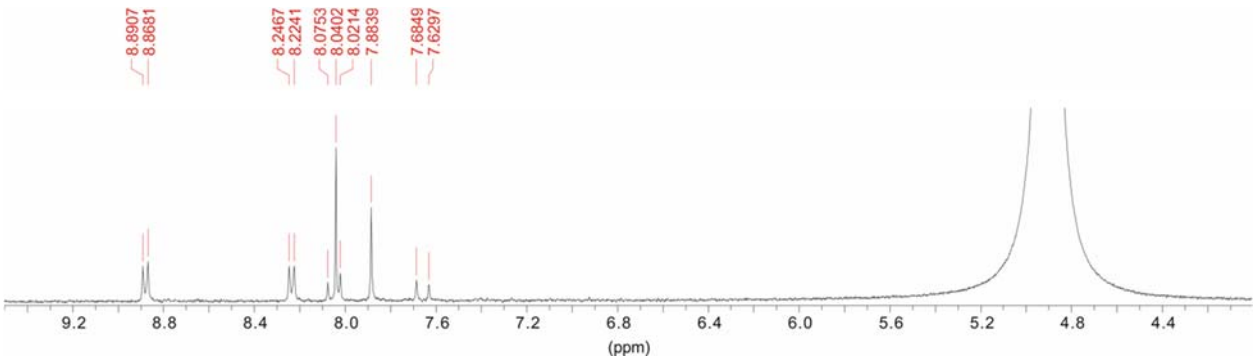
(a) (b)

(c) (d)

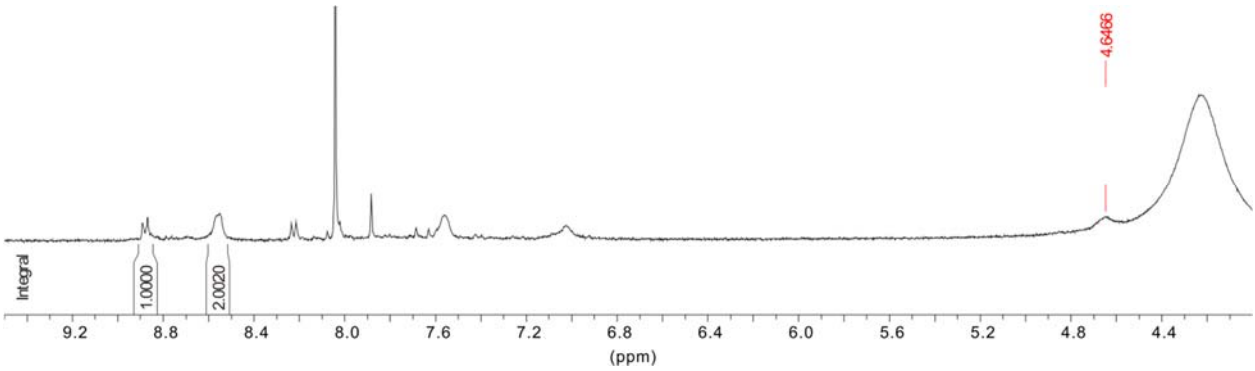
Figure S8. The single **dia** network in (a) **1** and (b) **3**. The **dia** topology in (c) **1** and (d) **3**.



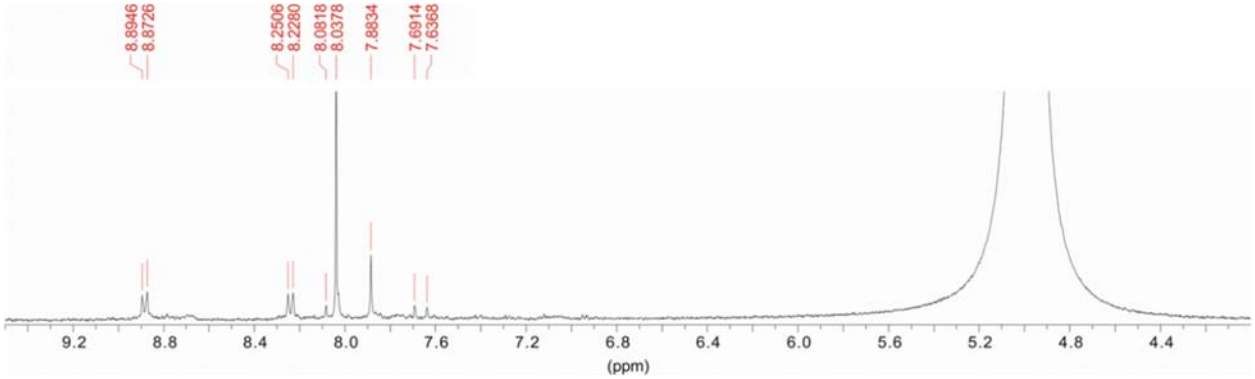
(a)



(b)



(c)



(d)

Figure S9. ^{1}H NMR spectrum of (a) **3**, (b) **4**, (c) **5**, and (d) **4'** and in DMSO-d_6 with a small drop of HNO_3 to dissolve the crystals. The humps around 4.5-5.5 ppm is due to the protonated water (*:DEF).

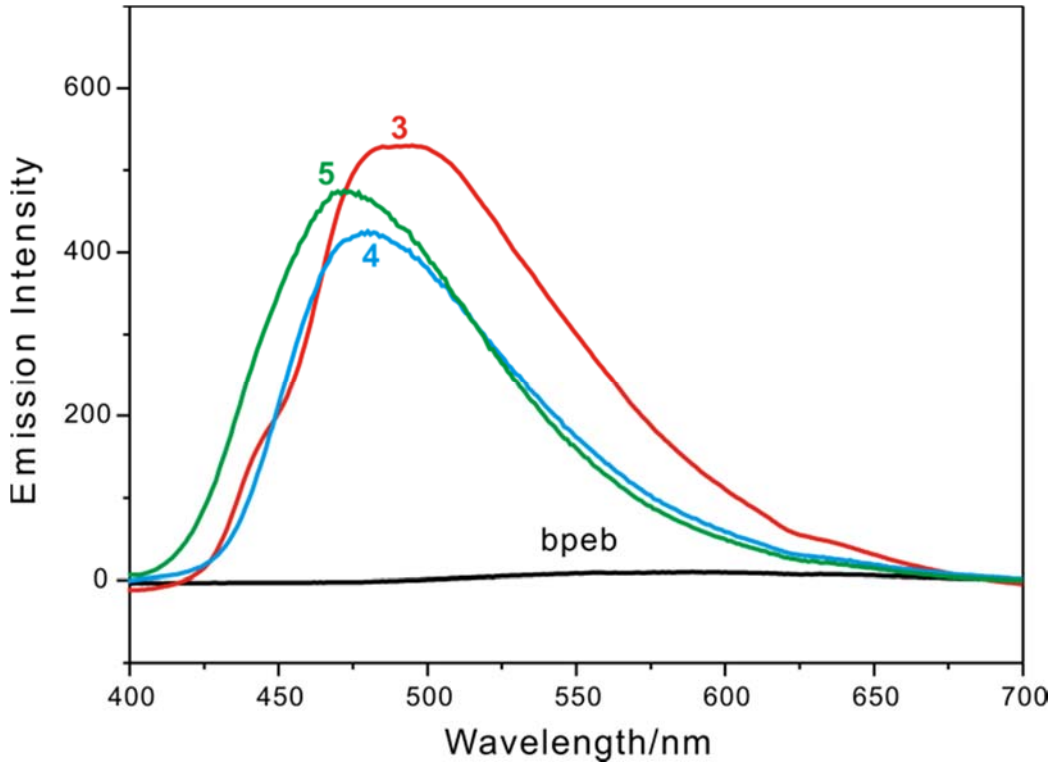


Figure S10. Solid-state emission spectra of bpeb, **3**, **4**, and **5** at room temperature (excitation at 360 nm).

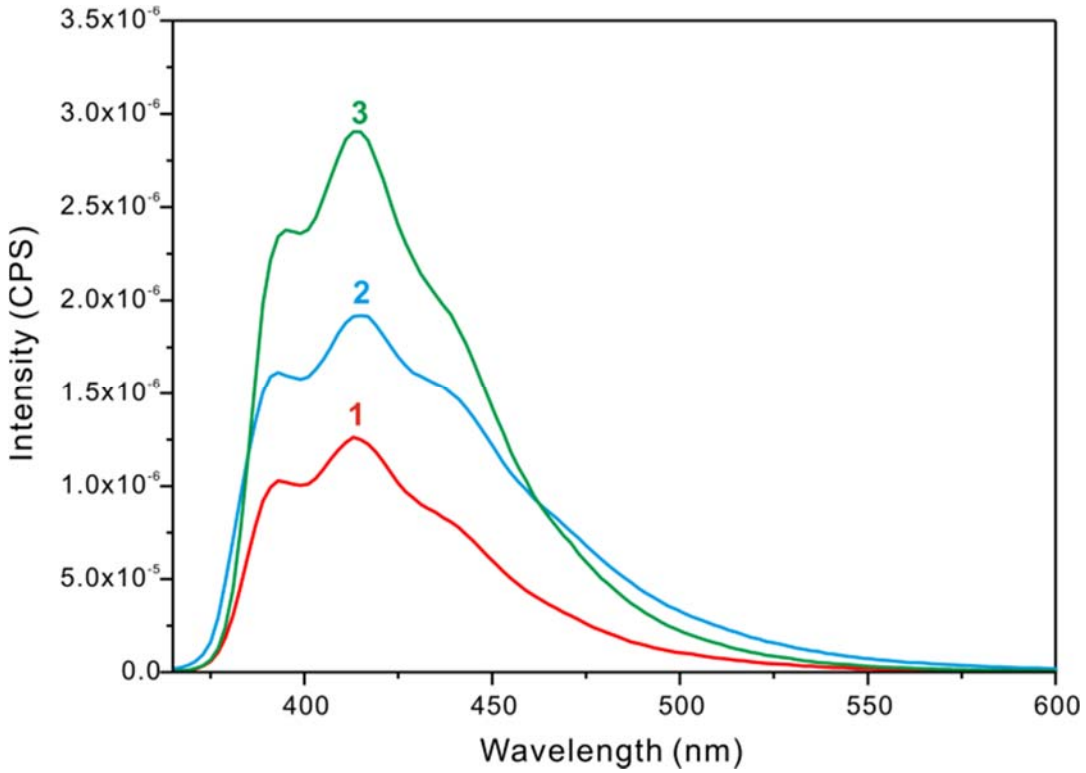
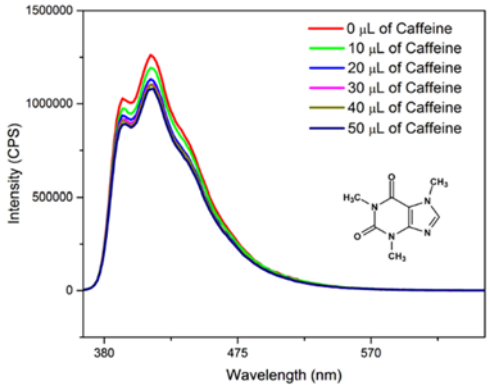


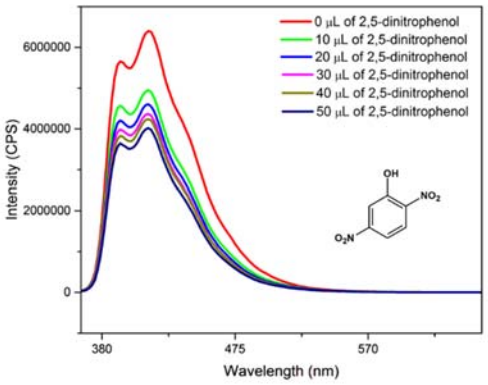
Figure S11. The PL spectra of **1**-**3** dispersed in 1 mL of DMF and excited at 360 nm.

Sensing of nitro compounds and drug molecules with compounds 1-5: Here we presented the PL titration data for the selected analytes which showed significant quenching behavior.

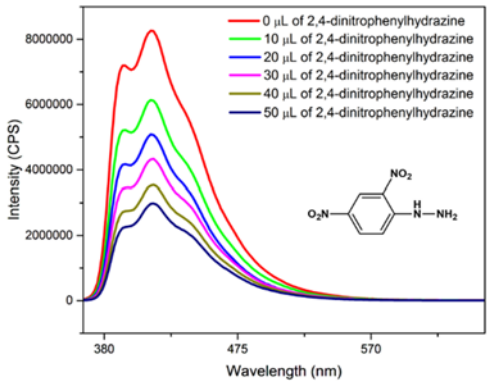
Quenching data for compound 1:



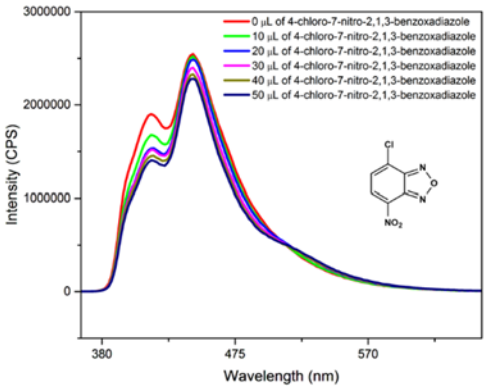
(a)



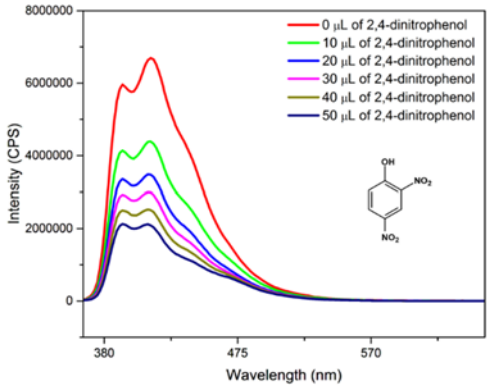
(b)



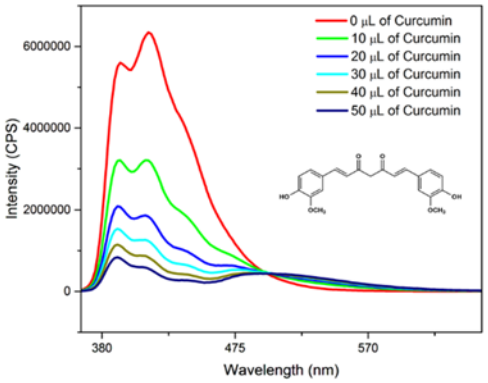
(c)



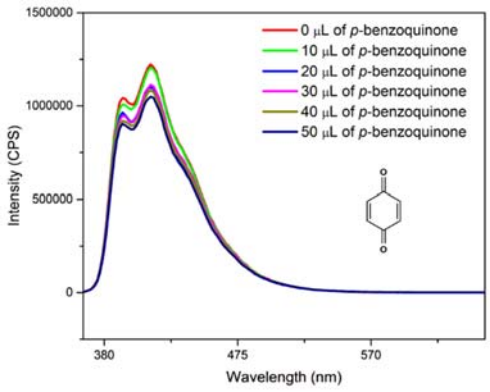
(d)



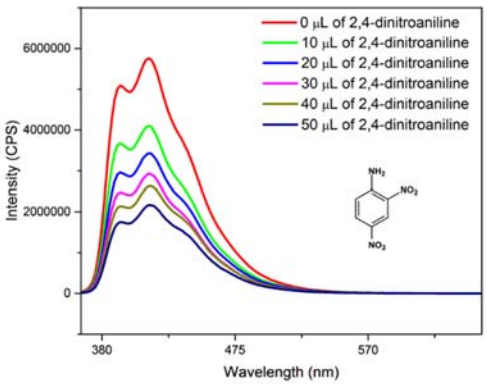
(e)



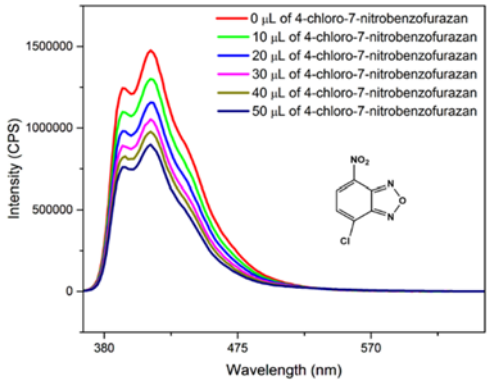
(f)


0 μL of p-benzoquinone
10 μL of p-benzoquinone
20 μL of p-benzoquinone
30 μL of p-benzoquinone
40 μL of p-benzoquinone
50 μL of p-benzoquinone
Intensity (CPS)
Wavelength (nm)

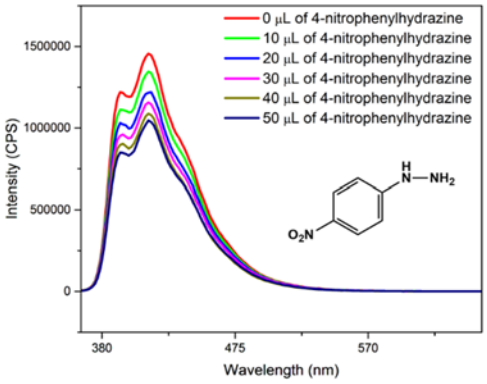
(g)


0 μL of 2,4-dinitroaniline
10 μL of 2,4-dinitroaniline
20 μL of 2,4-dinitroaniline
30 μL of 2,4-dinitroaniline
40 μL of 2,4-dinitroaniline
50 μL of 2,4-dinitroaniline
Intensity (CPS)
Wavelength (nm)

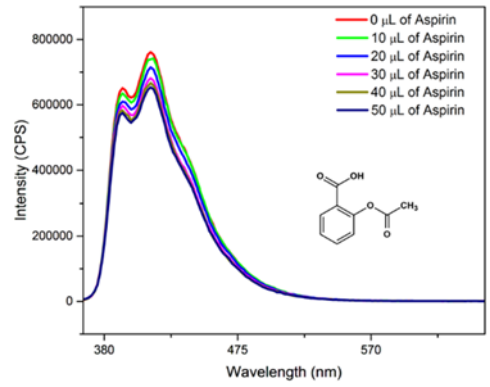
(h)


0 μL of 4-chloro-7-nitrobenzofurazan
10 μL of 4-chloro-7-nitrobenzofurazan
20 μL of 4-chloro-7-nitrobenzofurazan
30 μL of 4-chloro-7-nitrobenzofurazan
40 μL of 4-chloro-7-nitrobenzofurazan
50 μL of 4-chloro-7-nitrobenzofurazan
Intensity (CPS)
Wavelength (nm)

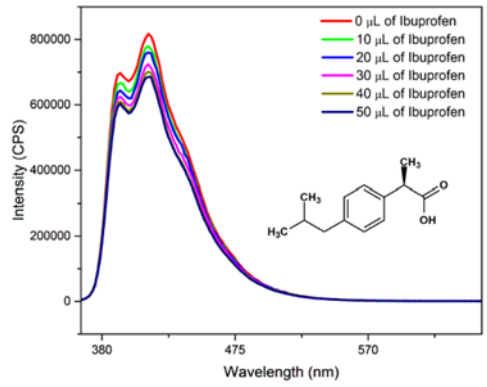
(i)


0 μL of 4-nitrophenylhydrazine
10 μL of 4-nitrophenylhydrazine
20 μL of 4-nitrophenylhydrazine
30 μL of 4-nitrophenylhydrazine
40 μL of 4-nitrophenylhydrazine
50 μL of 4-nitrophenylhydrazine
Intensity (CPS)
Wavelength (nm)

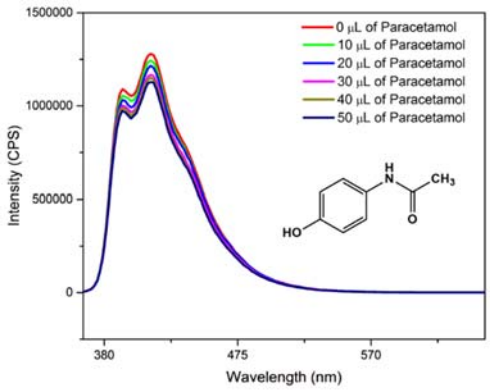
(j)


0 μL of Aspirin
10 μL of Aspirin
20 μL of Aspirin
30 μL of Aspirin
40 μL of Aspirin
50 μL of Aspirin
Intensity (CPS)
Wavelength (nm)

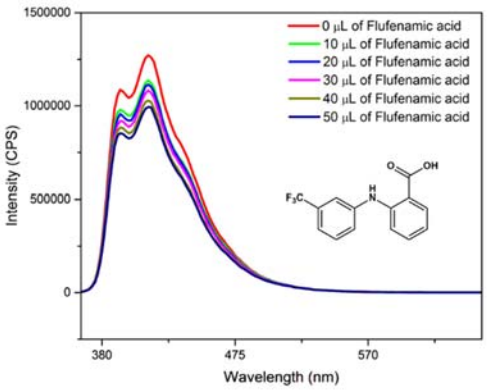
(k)


0 μL of Ibuprofen
10 μL of Ibuprofen
20 μL of Ibuprofen
30 μL of Ibuprofen
40 μL of Ibuprofen
50 μL of Ibuprofen
Intensity (CPS)
Wavelength (nm)

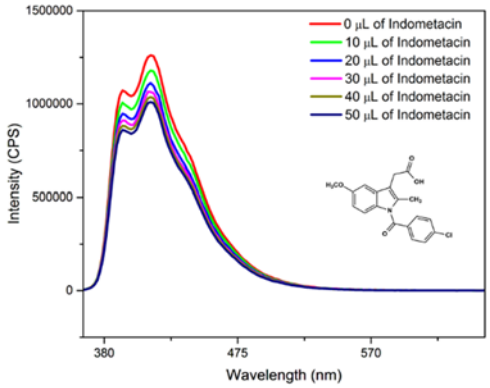
(l)


0 µL of Paracetamol
10 µL of Paracetamol
20 µL of Paracetamol
30 µL of Paracetamol
40 µL of Paracetamol
50 µL of Paracetamol
Intensity (CPS)
Wavelength (nm)

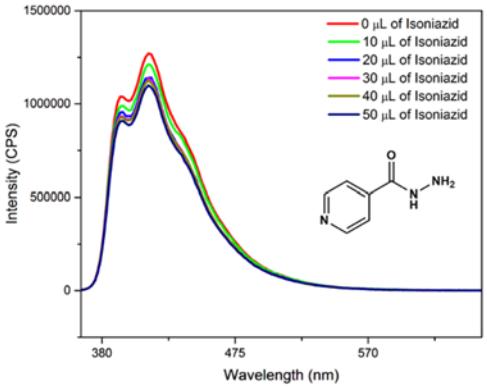
(m)


0 µL of Flufenamic acid
10 µL of Flufenamic acid
20 µL of Flufenamic acid
30 µL of Flufenamic acid
40 µL of Flufenamic acid
50 µL of Flufenamic acid
Intensity (CPS)
Wavelength (nm)

(n)


0 µL of Indometacin
10 µL of Indometacin
20 µL of Indometacin
30 µL of Indometacin
40 µL of Indometacin
50 µL of Indometacin
Intensity (CPS)
Wavelength (nm)

(o)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10 µL of Isoniazid
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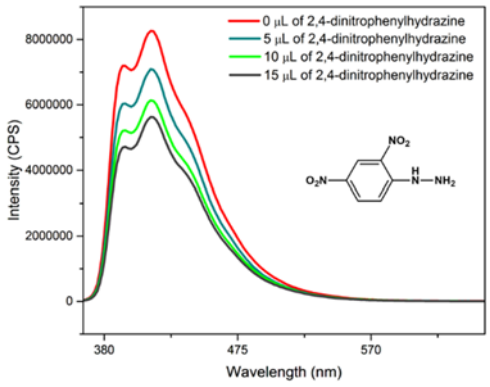
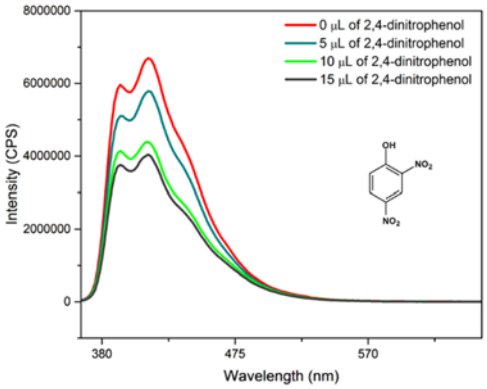
40 µL of Isoniazid
50 µL of Isoniazid
Intensity (CPS)
Wavelength (nm)

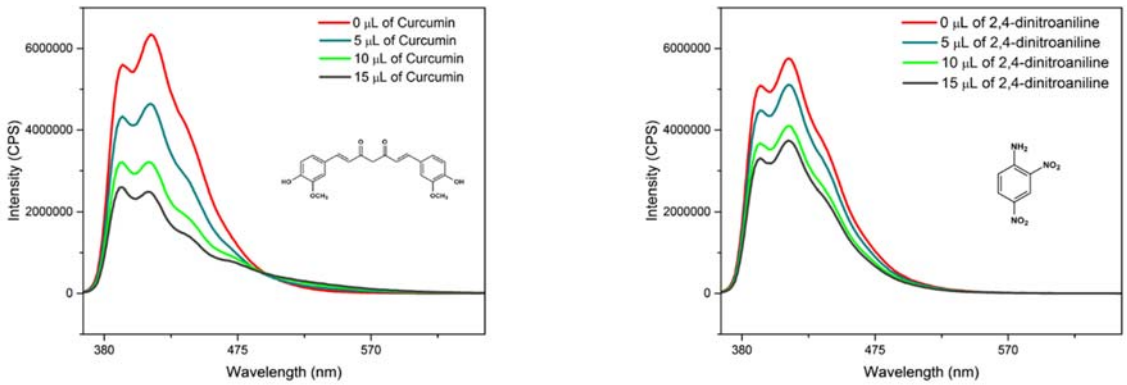
(p)


0 µL of 2,4-dinitrophenylhydrazine
5 µL of 2,4-dinitrophenylhydrazine
10 µL of 2,4-dinitrophenylhydrazine
15 µL of 2,4-dinitrophenylhydrazine
Intensity (CPS)
Wavelength (nm)

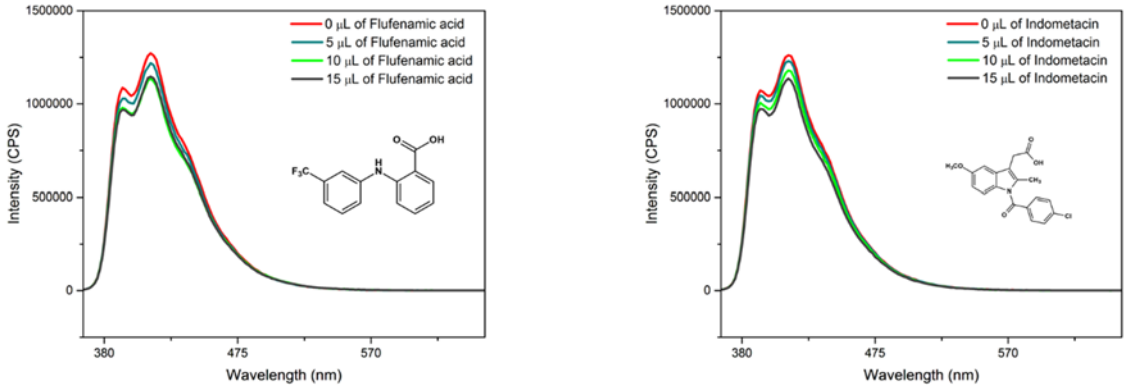
(q)


0 µL of 2,4-dinitrophenol
5 µL of 2,4-dinitrophenol
10 µL of 2,4-dinitrophenol
15 µL of 2,4-dinitrophenol
Intensity (CPS)
Wavelength (nm)

(r)



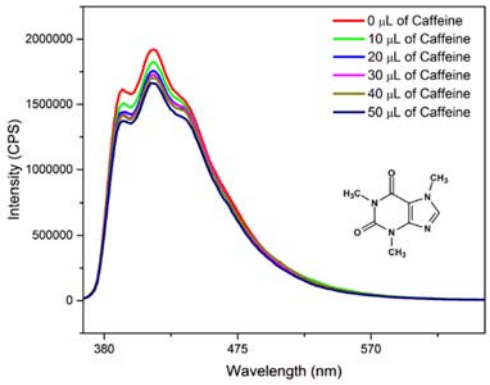
(s) (t)



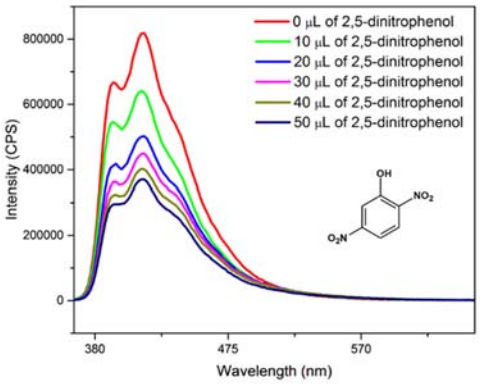
(u) (v)

Figure S12. PL spectral changes of compound **1** dispersed in DMF with (a) caffeine, (b) 2,5-dinitrophenol, (c) 2,4-dinitrophenylhydrazine, (d) 4-chloro-7-nitro-2,1,3-benzoxadiazole, (e) 2,4-dinitrophenol, (f) curcumin, (g) *p*-benzoquinone, (h) 2,4-dinitroaniline, (i) 4-chloro-7-nitrobenzofurazan, (j) 4-nitrophenylhydrazine, (k) aspirin, (l) ibuprofen, (m) paracetamol, (n) flufenamic acid, (o) indometacin, (p) isoniazid, (q) 2,4-dinitrophenylhydrazine (LOD), (r) 2,4-dinitrophenol (LOD), (s) curcumin (LOD), (t) 2,4-dinitroaniline (LOD), (u) flufenamic acid (LOD), (v) indometacin.

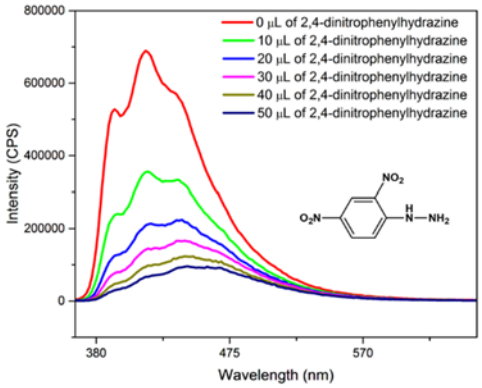
Quenching data for compound 2:



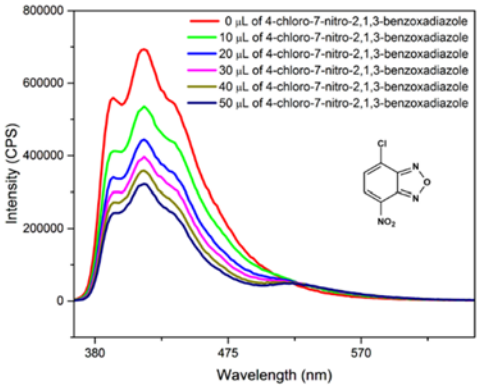
(a)



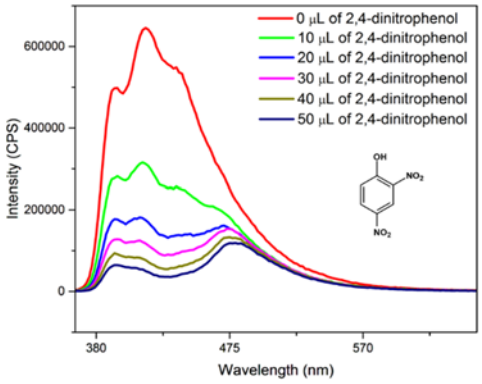
(b)



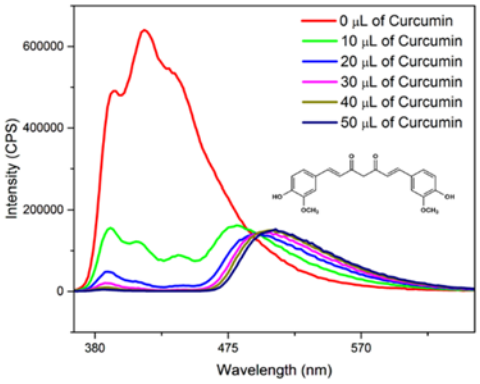
(c)



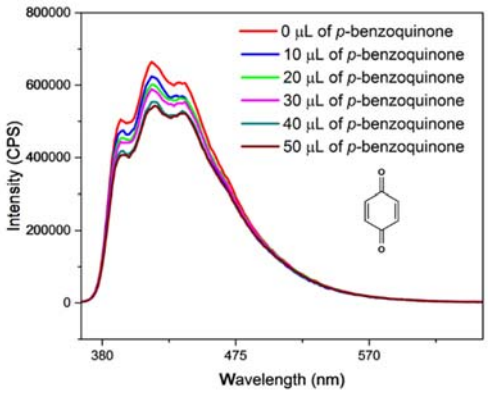
(d)



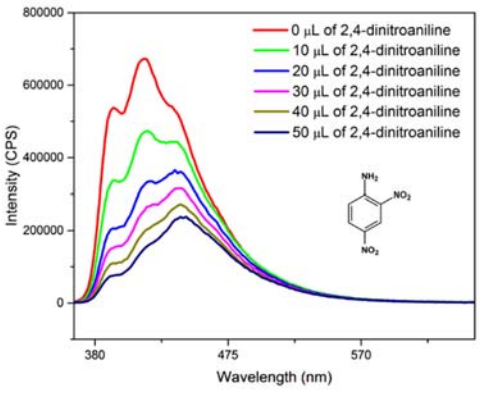
(e)



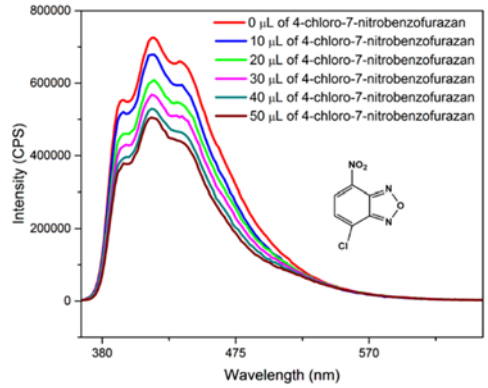
(f)


0 μL of p-benzoquinone
10 μL of p-benzoquinone
20 μL of p-benzoquinone
30 μL of p-benzoquinone
40 μL of p-benzoquinone
50 μL of p-benzoquinone
Intensity (CPS)
Wavelength (nm)

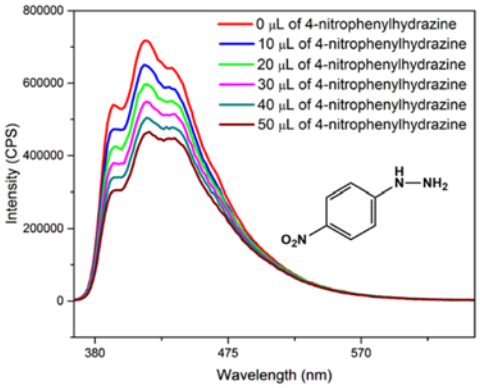
(g)


0 μL of 2,4-dinitroaniline
10 μL of 2,4-dinitroaniline
20 μL of 2,4-dinitroaniline
30 μL of 2,4-dinitroaniline
40 μL of 2,4-dinitroaniline
50 μL of 2,4-dinitroaniline
Intensity (CPS)
Wavelength (nm)

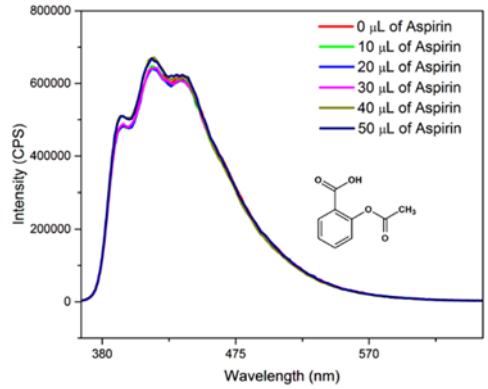
(h)


0 μL of 4-chloro-7-nitrobenzofurazan
10 μL of 4-chloro-7-nitrobenzofurazan
20 μL of 4-chloro-7-nitrobenzofurazan
30 μL of 4-chloro-7-nitrobenzofurazan
40 μL of 4-chloro-7-nitrobenzofurazan
50 μL of 4-chloro-7-nitrobenzofurazan
Intensity (CPS)
Wavelength (nm)

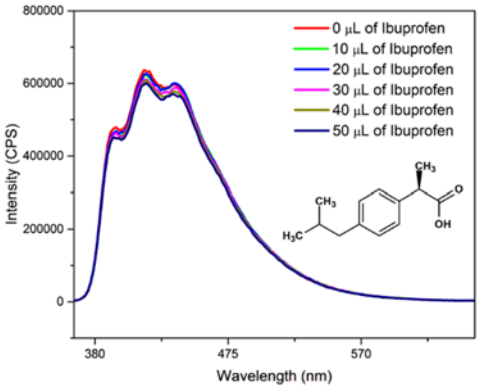
(i)


0 μL of 4-nitrophenylhydrazine
10 μL of 4-nitrophenylhydrazine
20 μL of 4-nitrophenylhydrazine
30 μL of 4-nitrophenylhydrazine
40 μL of 4-nitrophenylhydrazine
50 μL of 4-nitrophenylhydrazine
Intensity (CPS)
Wavelength (nm)

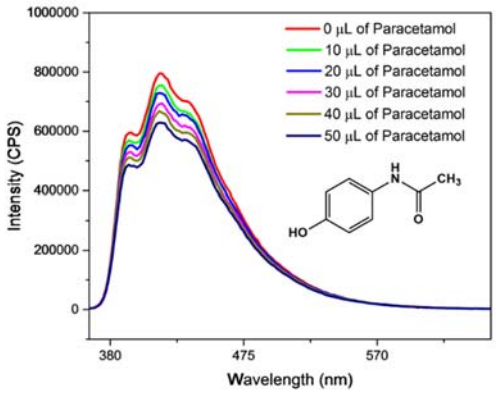
(j)


0 μL of Aspirin
10 μL of Aspirin
20 μL of Aspirin
30 μL of Aspirin
40 μL of Aspirin
50 μL of Aspirin
Intensity (CPS)
Wavelength (nm)

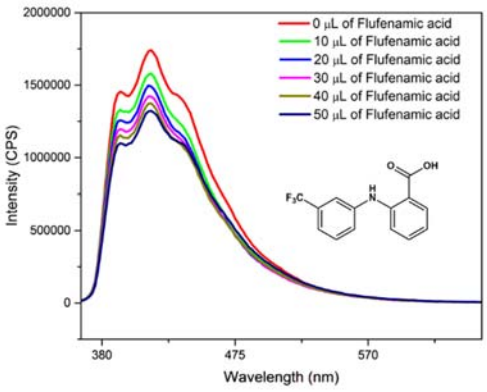
(k)


0 μL of Ibuprofen
10 μL of Ibuprofen
20 μL of Ibuprofen
30 μL of Ibuprofen
40 μL of Ibuprofen
50 μL of Ibuprofen
Intensity (CPS)
Wavelength (nm)

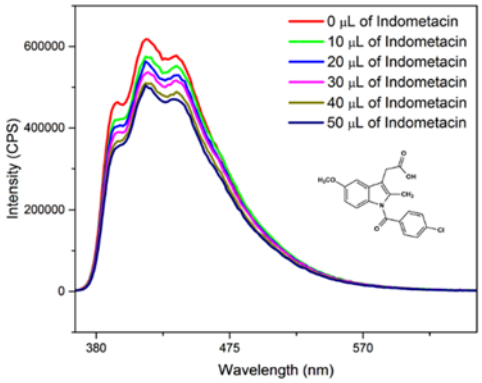
(l)


0 µL of Paracetamol
10 µL of Paracetamol
20 µL of Paracetamol
30 µL of Paracetamol
40 µL of Paracetamol
50 µL of Paracetamol
Intensity (CPS)
Wavelength (nm)

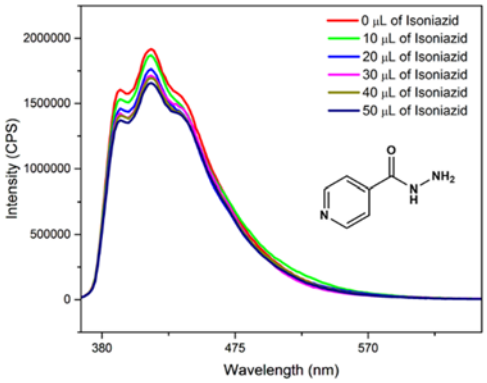
(m)


0 µL of Flufenamic acid
10 µL of Flufenamic acid
20 µL of Flufenamic acid
30 µL of Flufenamic acid
40 µL of Flufenamic acid
50 µL of Flufenamic acid
Intensity (CPS)
Wavelength (nm)

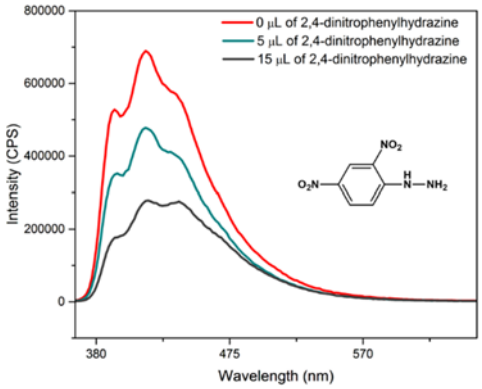
(n)


0 µL of Indometacin
10 µL of Indometacin
20 µL of Indometacin
30 µL of Indometacin
40 µL of Indometacin
50 µL of Indometacin
Intensity (CPS)
Wavelength (nm)

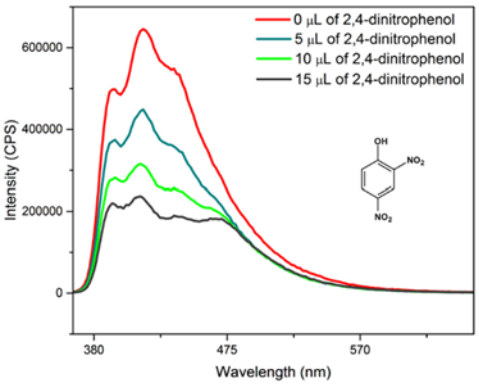
(o)


0 µL of Isoniazid
10 µL of Isoniazid
20 µL of Isoniazid
30 µL of Isoniazid
40 µL of Isoniazid
50 µL of Isoniazid
Intensity (CPS)
Wavelength (nm)

(p)


0 µL of 2,4-dinitrophenylhydrazine
5 µL of 2,4-dinitrophenylhydrazine
15 µL of 2,4-dinitrophenylhydrazine
Intensity (CPS)
Wavelength (nm)

(q)


0 µL of 2,4-dinitrophenol
5 µL of 2,4-dinitrophenol
10 µL of 2,4-dinitrophenol
15 µL of 2,4-dinitrophenol
Intensity (CPS)
Wavelength (nm)

(r)

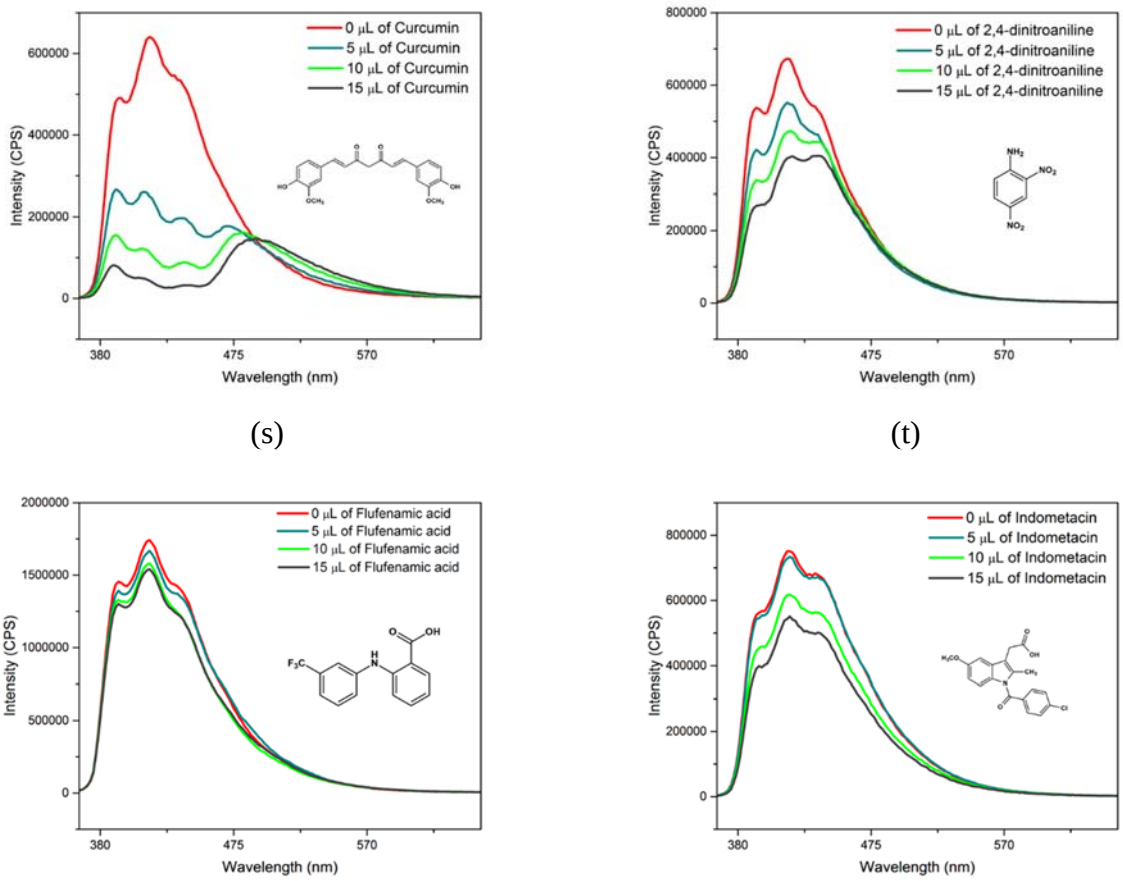
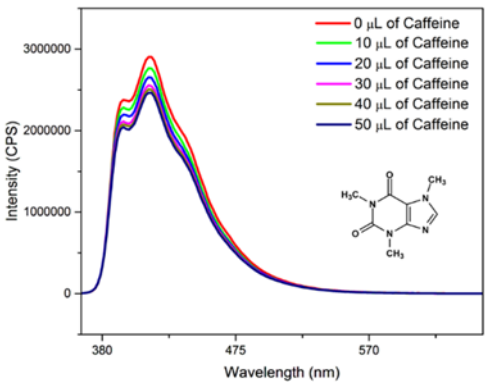
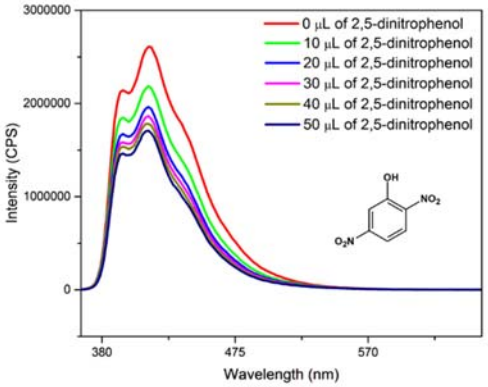


Figure S13. PL spectral changes of compound **2** dispersed in DMF with (a) caffeine, (b) 2,5-dinitrophenol, (c) 2,4-dinitrophenylhydrazine, (d) 4-chloro-7-nitro-2,1,3-benzoxadiazole, (e) 2,4-dinitrophenol, (f) curcumin, (g) *p*-benzoquinone, (h) 2,4-dinitroaniline, (i) 4-chloro-7-nitrobenzofurazan, (j) 4-nitrophenylhydrazine, (k) aspirin, (l) ibuprofen, (m) paracetamol, (n) flufenamic acid, (o) indometacin, (p) isoniazid, (q) 2,4-dinitrophenylhydrazine (LOD), (r) 2,4-dinitrophenol (LOD), (s) curcumin (LOD), (t) 2,4-dinitroaniline (LOD), (u) flufenamic acid (LOD), (v) indometacin.

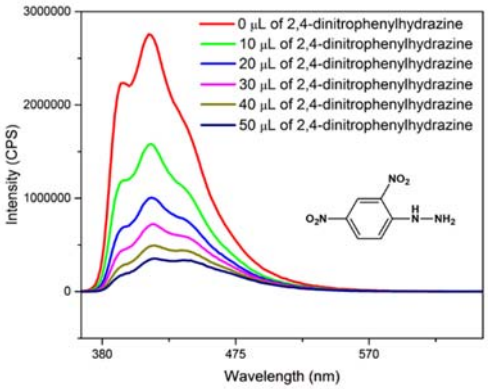
Quenching data for compound 3:



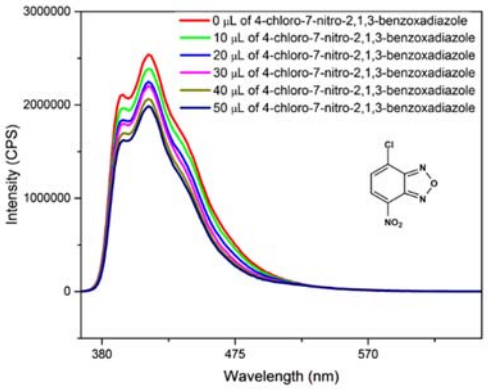
(a)



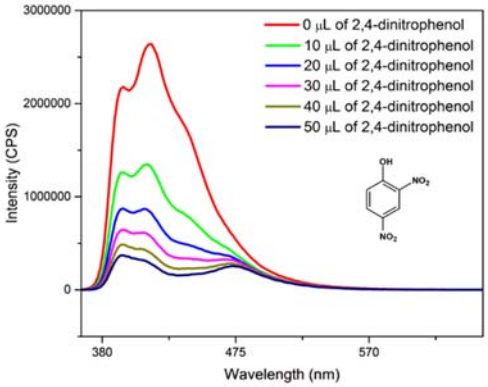
(n)



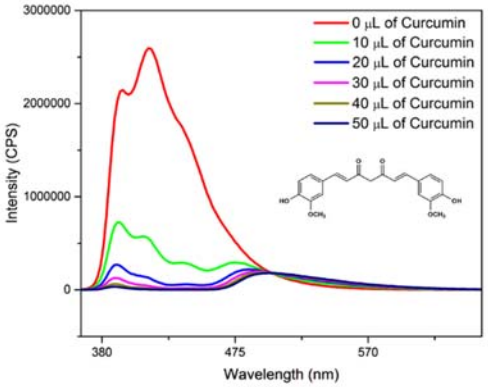
(c)



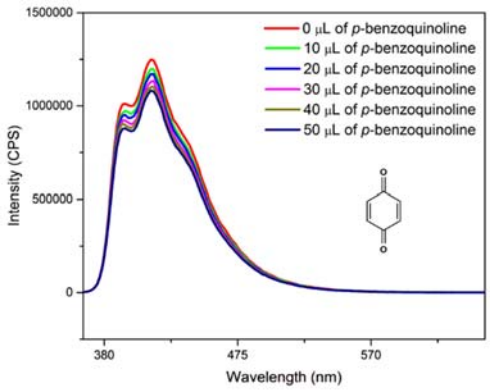
(d)



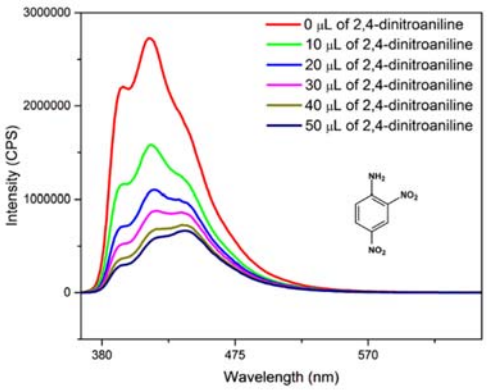
(e)



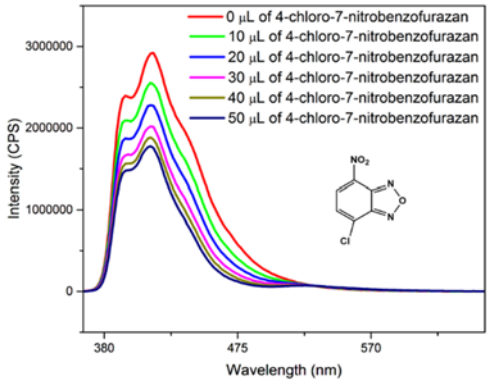
(f)


0 μL of p-benzoquinoline
10 μL of p-benzoquinoline
20 μL of p-benzoquinoline
30 μL of p-benzoquinoline
40 μL of p-benzoquinoline
50 μL of p-benzoquinoline
Intensity (CPS)
Wavelength (nm)

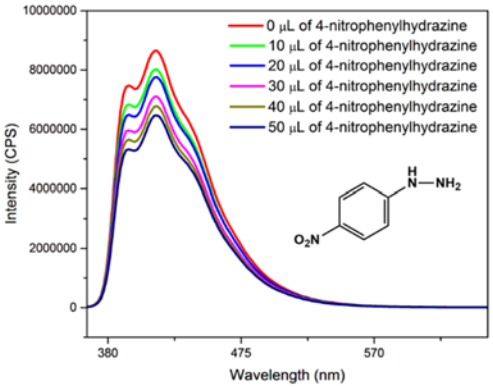
(g)


0 μL of 2,4-dinitroaniline
10 μL of 2,4-dinitroaniline
20 μL of 2,4-dinitroaniline
30 μL of 2,4-dinitroaniline
40 μL of 2,4-dinitroaniline
50 μL of 2,4-dinitroaniline
Intensity (CPS)
Wavelength (nm)

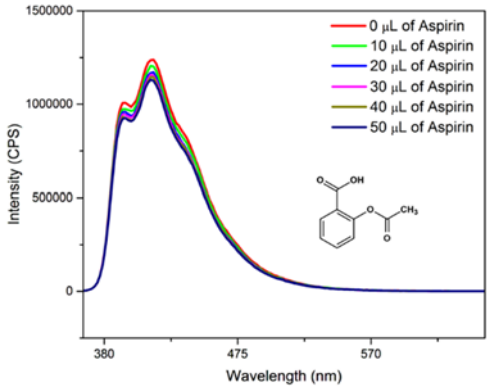
(h)


0 μL of 4-chloro-7-nitrobenzofurazan
10 μL of 4-chloro-7-nitrobenzofurazan
20 μL of 4-chloro-7-nitrobenzofurazan
30 μL of 4-chloro-7-nitrobenzofurazan
40 μL of 4-chloro-7-nitrobenzofurazan
50 μL of 4-chloro-7-nitrobenzofurazan
Intensity (CPS)
Wavelength (nm)

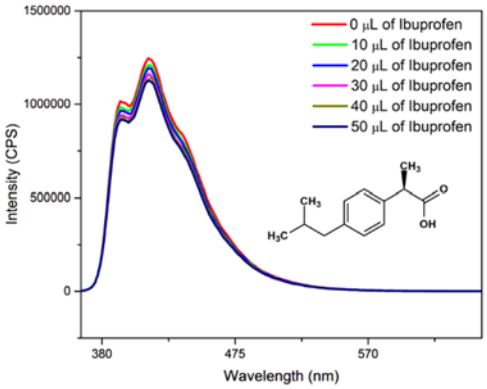
(i)


0 μL of 4-nitrophenylhydrazine
10 μL of 4-nitrophenylhydrazine
20 μL of 4-nitrophenylhydrazine
30 μL of 4-nitrophenylhydrazine
40 μL of 4-nitrophenylhydrazine
50 μL of 4-nitrophenylhydrazine
Intensity (CPS)
Wavelength (nm)

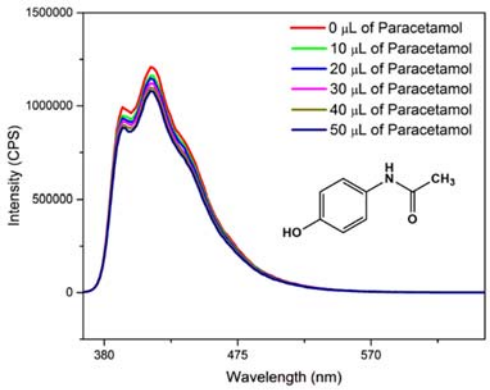
(j)


0 μL of Aspirin
10 μL of Aspirin
20 μL of Aspirin
30 μL of Aspirin
40 μL of Aspirin
50 μL of Aspirin
Intensity (CPS)
Wavelength (nm)

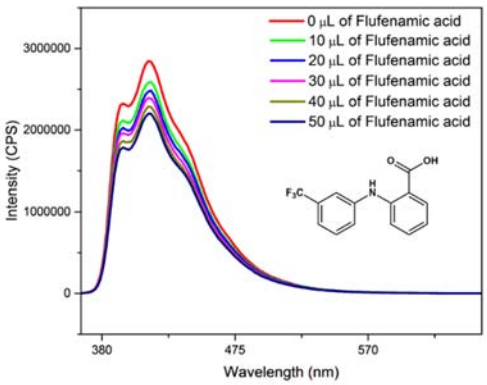
(k)


0 μL of Ibuprofen
10 μL of Ibuprofen
20 μL of Ibuprofen
30 μL of Ibuprofen
40 μL of Ibuprofen
50 μL of Ibuprofen
Intensity (CPS)
Wavelength (nm)

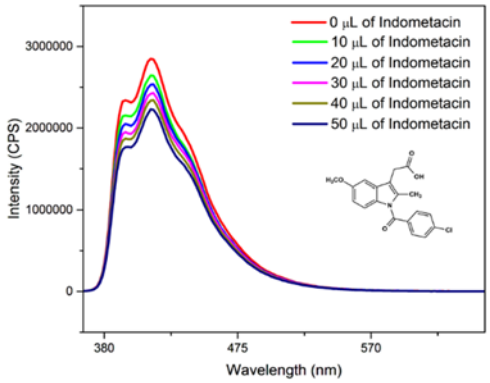
(l)


0 μL of Paracetamol
10 μL of Paracetamol
20 μL of Paracetamol
30 μL of Paracetamol
40 μL of Paracetamol
50 μL of Paracetamol
Intensity (CPS)
Wavelength (nm)

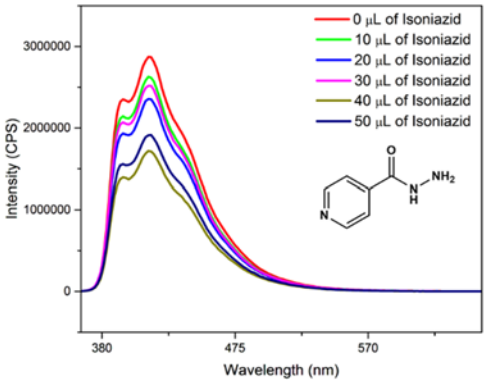
(m)


0 μL of Flufenamic acid
10 μL of Flufenamic acid
20 μL of Flufenamic acid
30 μL of Flufenamic acid
40 μL of Flufenamic acid
50 μL of Flufenamic acid
Intensity (CPS)
Wavelength (nm)

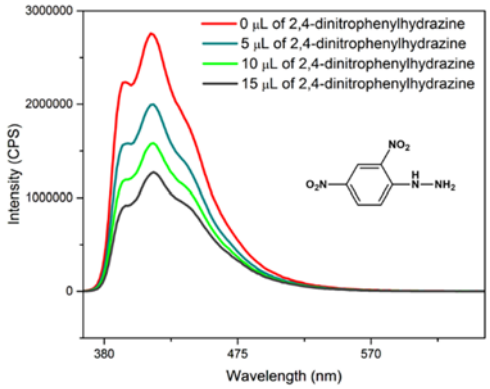
(n)


0 μL of Indometacin
10 μL of Indometacin
20 μL of Indometacin
30 μL of Indometacin
40 μL of Indometacin
50 μL of Indometacin
Intensity (CPS)
Wavelength (nm)

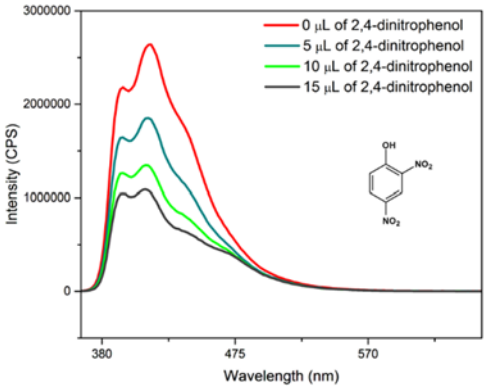
(o)


0 μL of Isoniazid
10 μL of Isoniazid
20 μL of Isoniazid
30 μL of Isoniazid
40 μL of Isoniazid
50 μL of Isoniazid
Intensity (CPS)
Wavelength (nm)

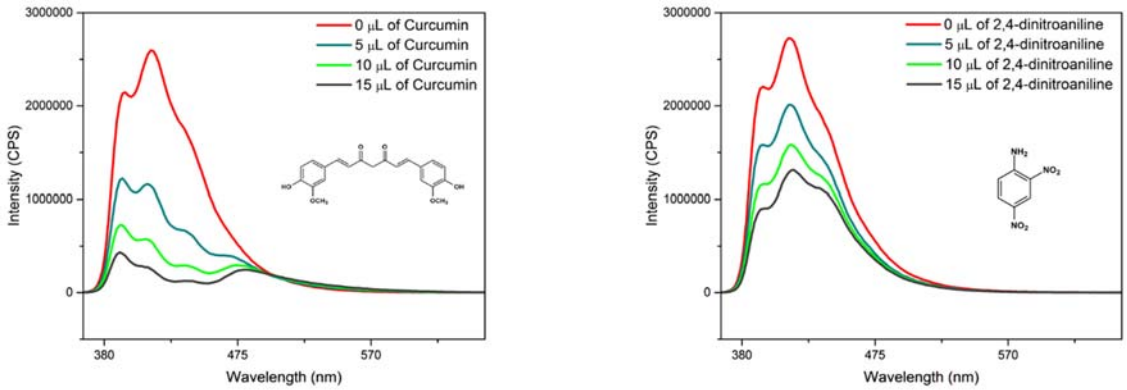
(p)


0 μL of 2,4-dinitrophenylhydrazine
5 μL of 2,4-dinitrophenylhydrazine
10 μL of 2,4-dinitrophenylhydrazine
15 μL of 2,4-dinitrophenylhydrazine
Intensity (CPS)
Wavelength (nm)

(q)

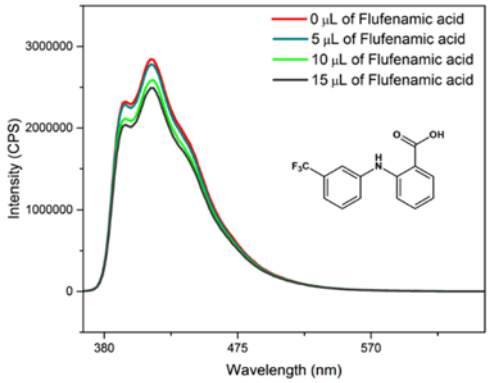

0 μL of 2,4-dinitrophenol
5 μL of 2,4-dinitrophenol
10 μL of 2,4-dinitrophenol
15 μL of 2,4-dinitrophenol
Intensity (CPS)
Wavelength (nm)

(r)

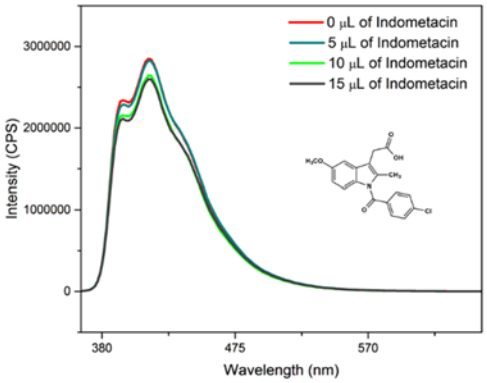


(s)

(t)



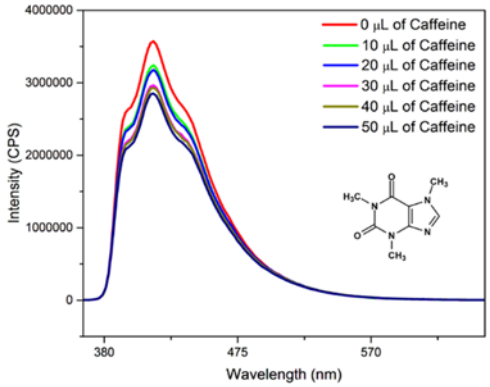
(u)



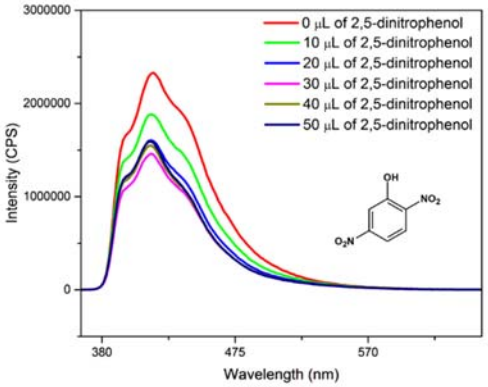
(v)

Figure S14. PL spectral changes of compound **3** dispersed in DMF with (a) caffeine, (b) 2,5-dinitrophenol, (c) 2,4-dinitrophenylhydrazine, (d) 4-chloro-7-nitro-2,1,3-benzoxadiazole, (e) 2,4-dinitrophenol, (f) curcumin, (g) *p*-benzoquinone, (h) 2,4-dinitroaniline, (i) 4-chloro-7-nitrobenzofurazan, (j) 4-nitrophenylhydrazine, (k) aspirin, (l) ibuprofen, (m) paracetamol, (n) flufenamic acid, (o) indometacin, (p) isoniazid, (q) 2,4-dinitrophenylhydrazine (LOD), (r) 2,4-dinitrophenol (LOD), (s) curcumin (LOD), (t) 2,4-dinitroaniline (LOD), (u) flufenamic acid (LOD), (v) indometacin.

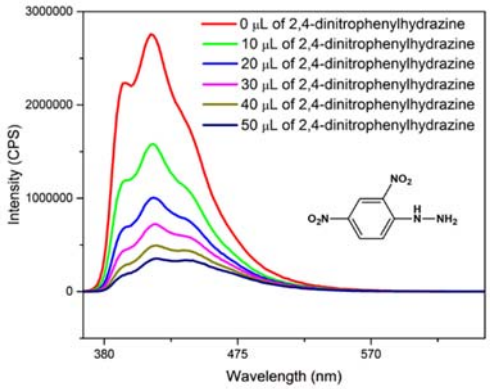
Quenching data for compound 4:



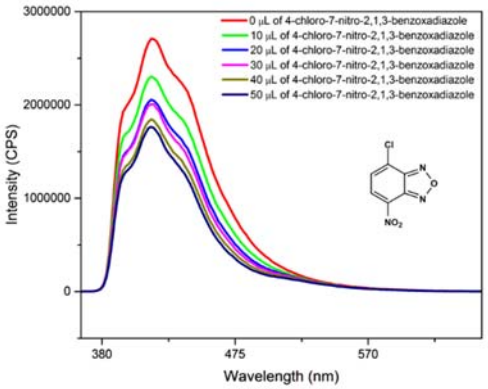
(a)



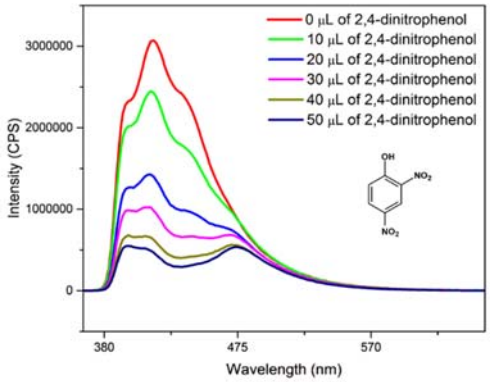
(b)



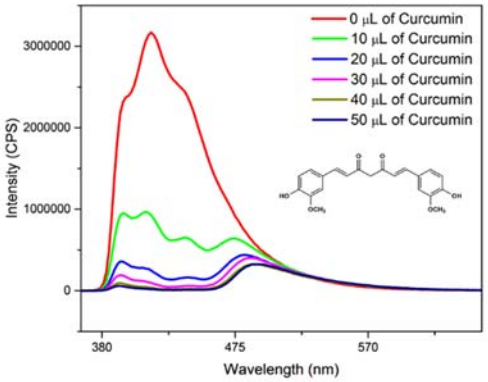
(c)



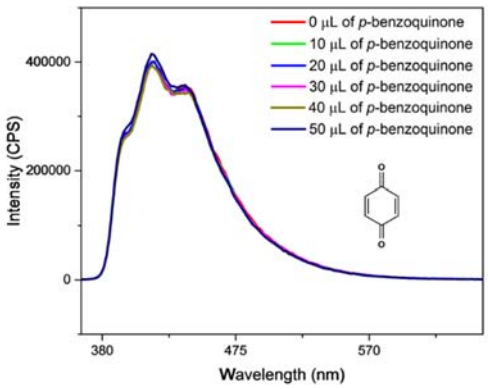
(d)



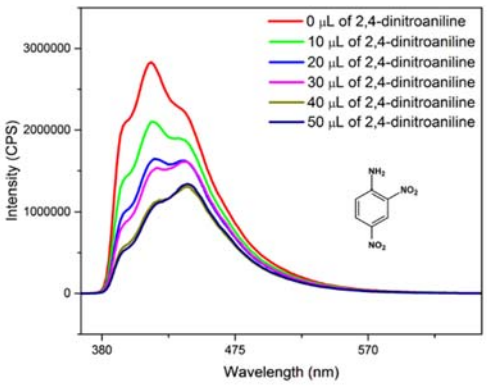
(e)



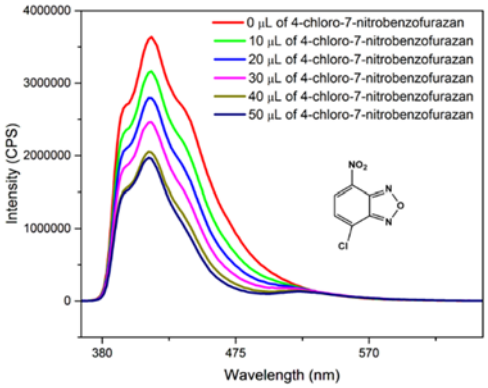
(f)


0 μL of p-benzoquinone
10 μL of p-benzoquinone
20 μL of p-benzoquinone
30 μL of p-benzoquinone
40 μL of p-benzoquinone
50 μL of p-benzoquinone
Intensity (CPS)
Wavelength (nm)

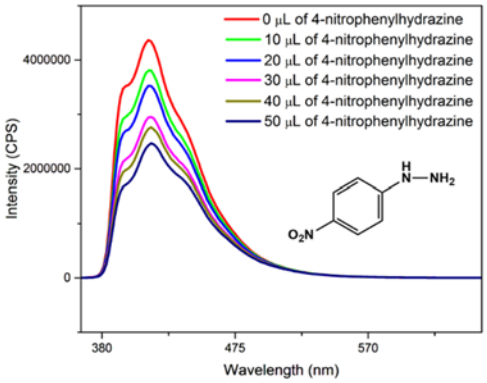
(g)


0 μL of 2,4-dinitroaniline
10 μL of 2,4-dinitroaniline
20 μL of 2,4-dinitroaniline
30 μL of 2,4-dinitroaniline
40 μL of 2,4-dinitroaniline
50 μL of 2,4-dinitroaniline
Intensity (CPS)
Wavelength (nm)

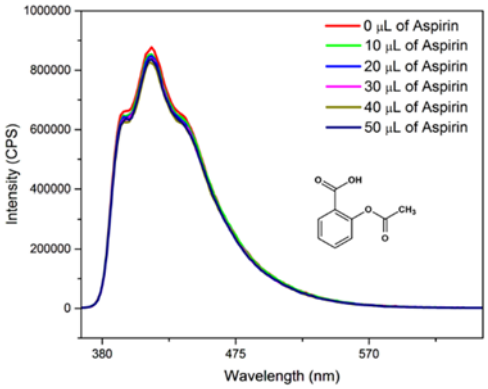
(h)


0 μL of 4-chloro-7-nitrobenzofurazan
10 μL of 4-chloro-7-nitrobenzofurazan
20 μL of 4-chloro-7-nitrobenzofurazan
30 μL of 4-chloro-7-nitrobenzofurazan
40 μL of 4-chloro-7-nitrobenzofurazan
50 μL of 4-chloro-7-nitrobenzofurazan
Intensity (CPS)
Wavelength (nm)

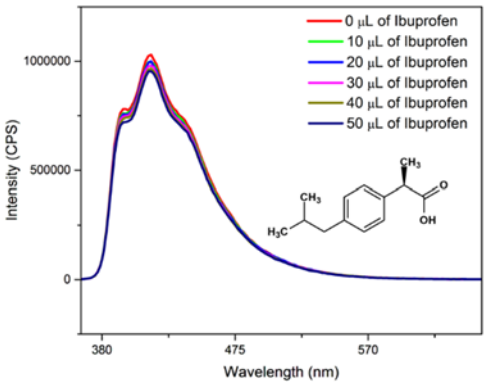
(i)


0 μL of 4-nitrophenylhydrazine
10 μL of 4-nitrophenylhydrazine
20 μL of 4-nitrophenylhydrazine
30 μL of 4-nitrophenylhydrazine
40 μL of 4-nitrophenylhydrazine
50 μL of 4-nitrophenylhydrazine
Intensity (CPS)
Wavelength (nm)

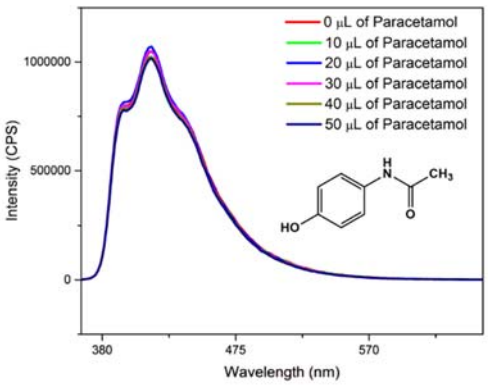
(j)


0 μL of Aspirin
10 μL of Aspirin
20 μL of Aspirin
30 μL of Aspirin
40 μL of Aspirin
50 μL of Aspirin
Intensity (CPS)
Wavelength (nm)

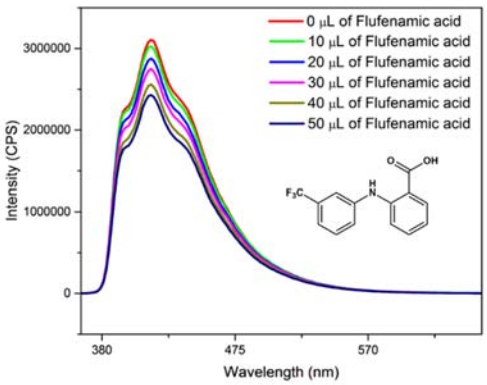
(k)


0 μL of Ibuprofen
10 μL of Ibuprofen
20 μL of Ibuprofen
30 μL of Ibuprofen
40 μL of Ibuprofen
50 μL of Ibuprofen
Intensity (CPS)
Wavelength (nm)

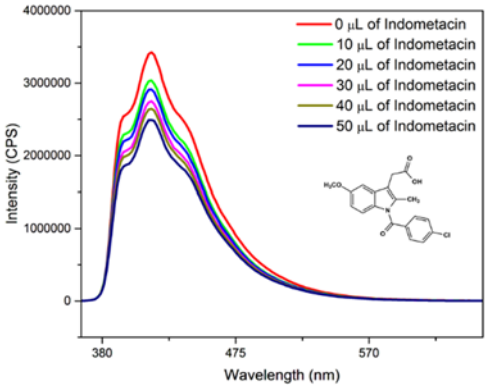
(l)


0 µL of Paracetamol
10 µL of Paracetamol
20 µL of Paracetamol
30 µL of Paracetamol
40 µL of Paracetamol
50 µL of Paracetamol
Intensity (CPS)
Wavelength (nm)

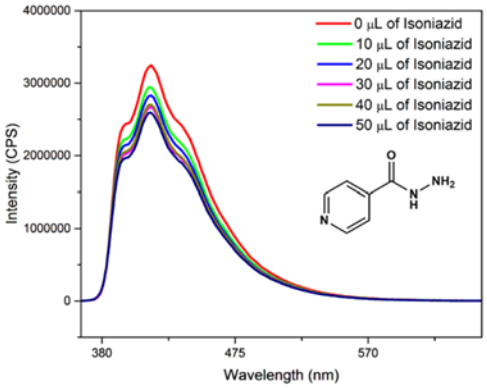
(m)


0 µL of Flufenamic acid
10 µL of Flufenamic acid
20 µL of Flufenamic acid
30 µL of Flufenamic acid
40 µL of Flufenamic acid
50 µL of Flufenamic acid
Intensity (CPS)
Wavelength (nm)

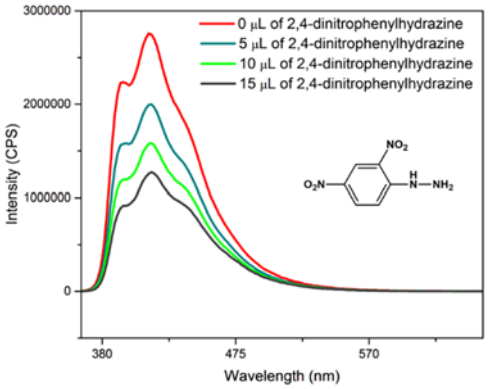
(n)


0 µL of Indometacin
10 µL of Indometacin
20 µL of Indometacin
30 µL of Indometacin
40 µL of Indometacin
50 µL of Indometacin
Intensity (CPS)
Wavelength (nm)

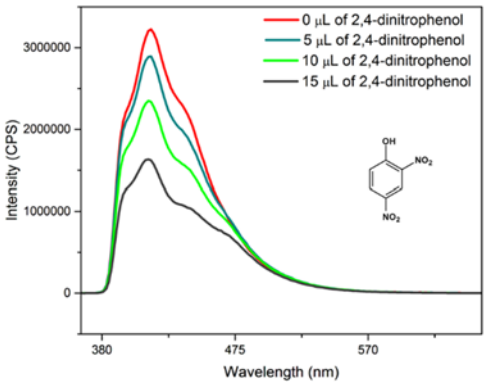
(o)


0 µL of Isoniazid
10 µL of Isoniazid
20 µL of Isoniazid
30 µL of Isoniazid
40 µL of Isoniazid
50 µL of Isoniazid
Intensity (CPS)
Wavelength (nm)

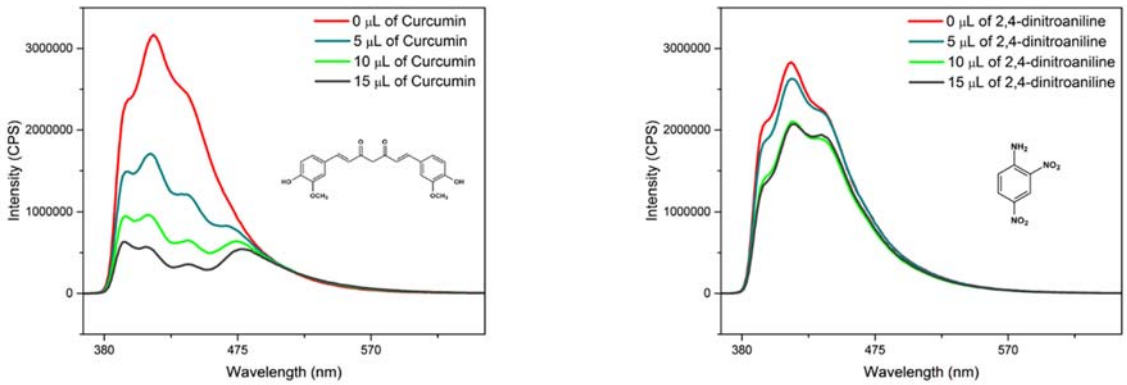
(p)


0 µL of 2,4-dinitrophenylhydrazine
5 µL of 2,4-dinitrophenylhydrazine
10 µL of 2,4-dinitrophenylhydrazine
15 µL of 2,4-dinitrophenylhydrazine
Intensity (CPS)
Wavelength (nm)

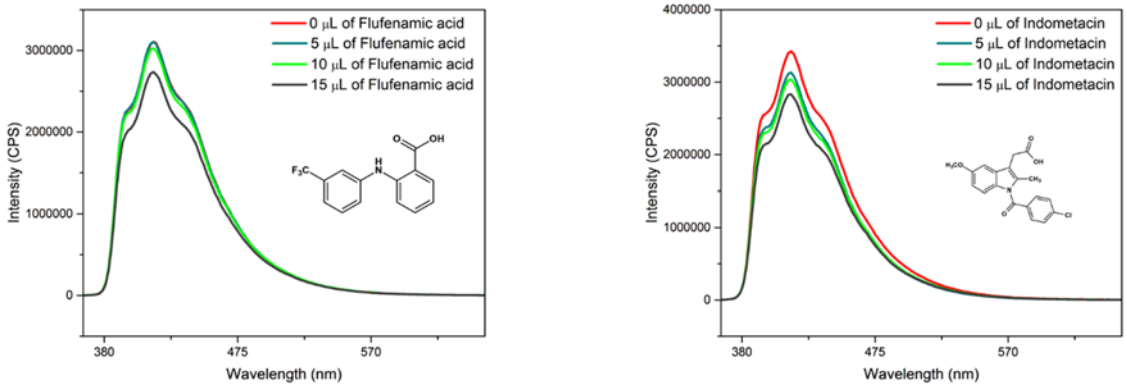
(q)


0 µL of 2,4-dinitrophenol
5 µL of 2,4-dinitrophenol
10 µL of 2,4-dinitrophenol
15 µL of 2,4-dinitrophenol
Intensity (CPS)
Wavelength (nm)

(r)



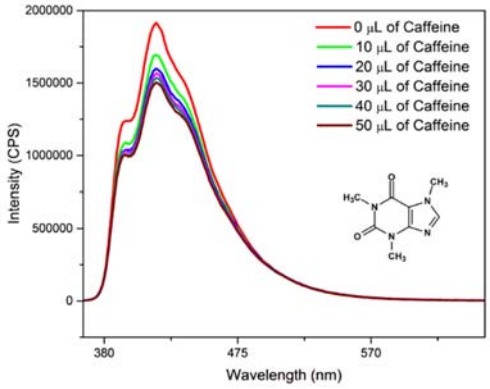
(s) (t)



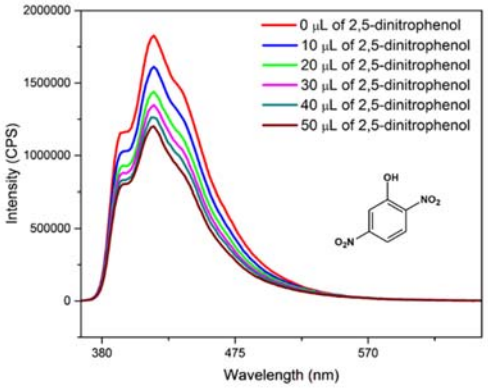
(u) (v)

Figure S15. PL spectral changes of compound **4** dispersed in DMF with (a) caffeine, (b) 2,5-dinitrophenol, (c) 2,4-dinitrophenylhydrazine, (d) 4-chloro-7-nitro-2,1,3-benzoxadiazole, (e) 2,4-dinitrophenol, (f) curcumin, (g) *p*-benzoquinone, (h) 2,4-dinitroaniline, (i) 4-chloro-7-nitrobenzofurazan, (j) 4-nitrophenylhydrazine, (k) aspirin, (l) ibuprofen, (m) paracetamol, (n) flufenamic acid, (o) indometacin, (p) isoniazid, (q) 2,4-dinitrophenylhydrazine (LOD), (r) 2,4-dinitrophenol (LOD), (s) curcumin (LOD), (t) 2,4-dinitroaniline (LOD), (u) flufenamic acid (LOD), (v) indometacin.

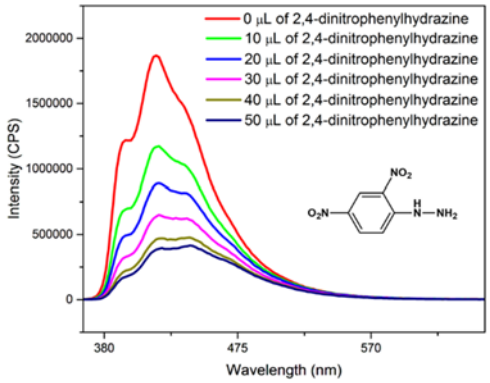
Quenching data for compound 5:



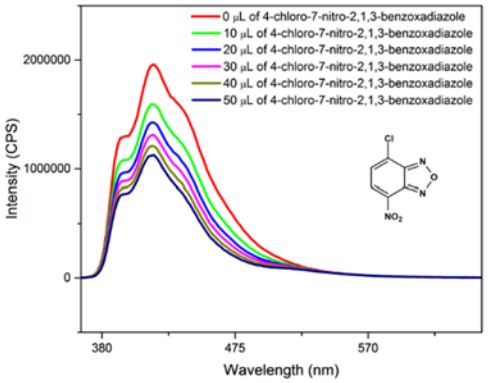
(a)



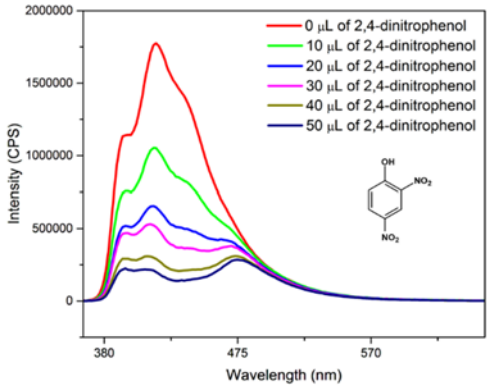
(b)



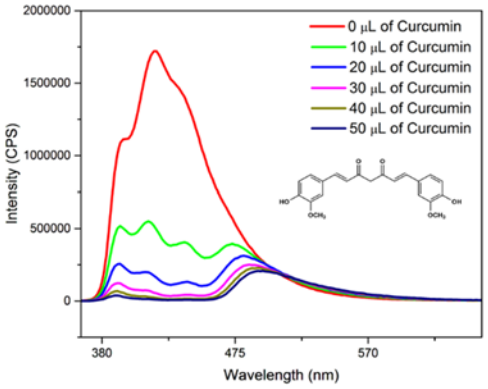
(c)



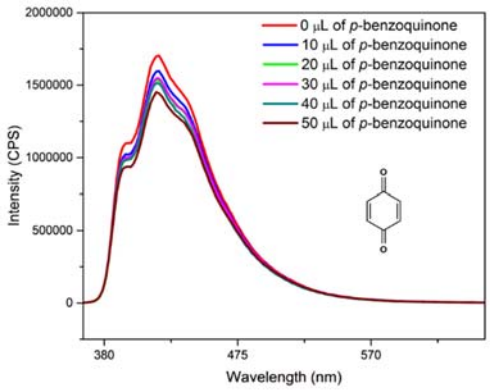
(d)



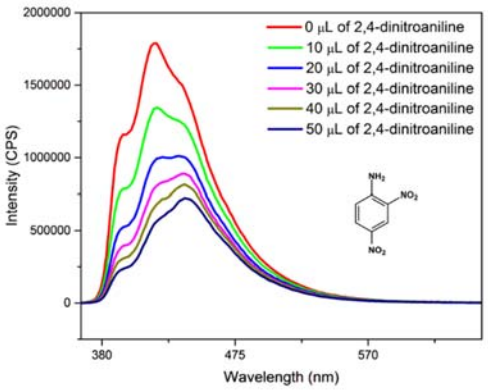
(e)



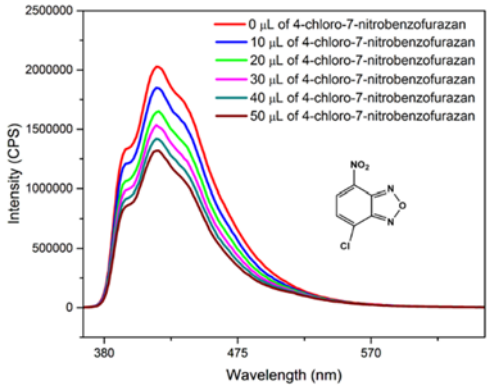
(f)


0 μL of p-benzoquinone
10 μL of p-benzoquinone
20 μL of p-benzoquinone
30 μL of p-benzoquinone
40 μL of p-benzoquinone
50 μL of p-benzoquinone
Intensity (CPS)
Wavelength (nm)

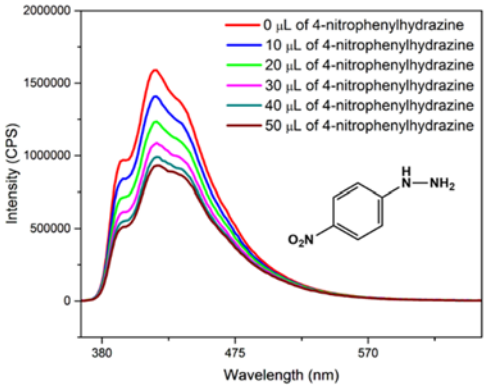
(g)


0 μL of 2,4-dinitroaniline
10 μL of 2,4-dinitroaniline
20 μL of 2,4-dinitroaniline
30 μL of 2,4-dinitroaniline
40 μL of 2,4-dinitroaniline
50 μL of 2,4-dinitroaniline
Intensity (CPS)
Wavelength (nm)

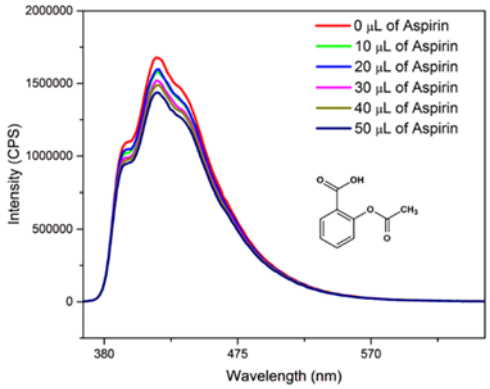
(h)


0 μL of 4-chloro-7-nitrobenzofurazan
10 μL of 4-chloro-7-nitrobenzofurazan
20 μL of 4-chloro-7-nitrobenzofurazan
30 μL of 4-chloro-7-nitrobenzofurazan
40 μL of 4-chloro-7-nitrobenzofurazan
50 μL of 4-chloro-7-nitrobenzofurazan
Intensity (CPS)
Wavelength (nm)

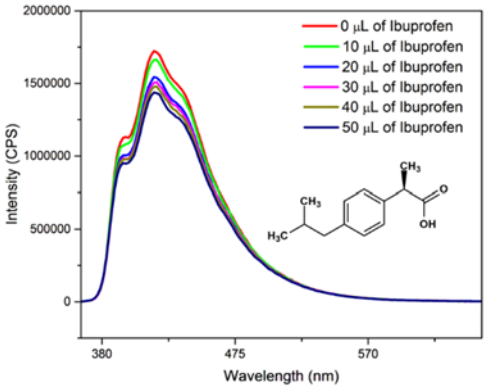
(i)


0 μL of 4-nitrophenylhydrazine
10 μL of 4-nitrophenylhydrazine
20 μL of 4-nitrophenylhydrazine
30 μL of 4-nitrophenylhydrazine
40 μL of 4-nitrophenylhydrazine
50 μL of 4-nitrophenylhydrazine
Intensity (CPS)
Wavelength (nm)

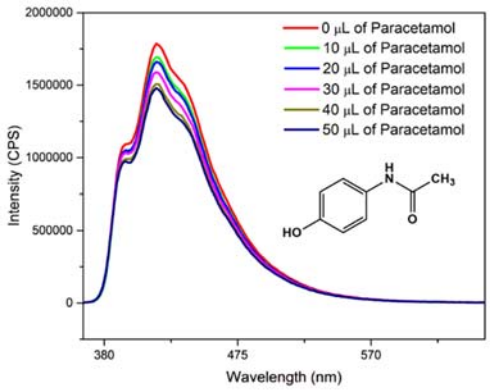
(j)


0 μL of Aspirin
10 μL of Aspirin
20 μL of Aspirin
30 μL of Aspirin
40 μL of Aspirin
50 μL of Aspirin
Intensity (CPS)
Wavelength (nm)

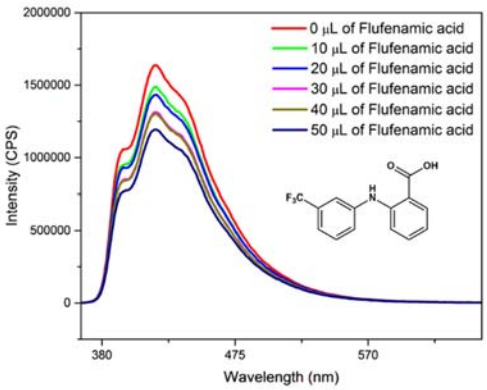
(k)


0 μL of Ibuprofen
10 μL of Ibuprofen
20 μL of Ibuprofen
30 μL of Ibuprofen
40 μL of Ibuprofen
50 μL of Ibuprofen
Intensity (CPS)
Wavelength (nm)

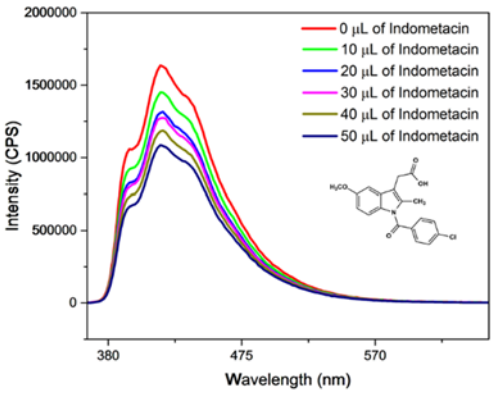
(l)


0 µL of Paracetamol
10 µL of Paracetamol
20 µL of Paracetamol
30 µL of Paracetamol
40 µL of Paracetamol
50 µL of Paracetamol
Intensity (CPS)
Wavelength (nm)

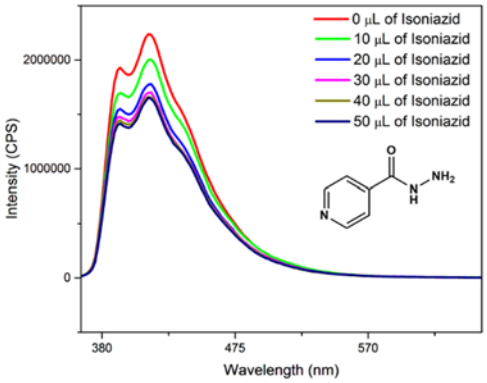
(m)


0 µL of Flufenamic acid
10 µL of Flufenamic acid
20 µL of Flufenamic acid
30 µL of Flufenamic acid
40 µL of Flufenamic acid
50 µL of Flufenamic acid
Intensity (CPS)
Wavelength (nm)

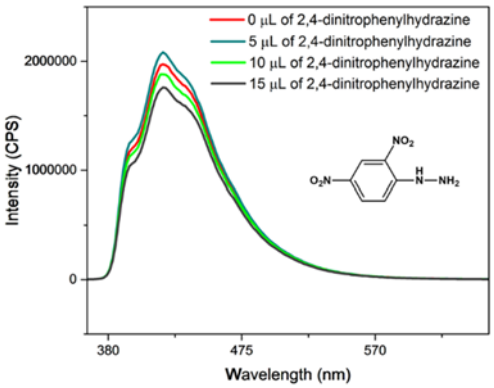
(n)


0 µL of Indometacin
10 µL of Indometacin
20 µL of Indometacin
30 µL of Indometacin
40 µL of Indometacin
50 µL of Indometacin
Intensity (CPS)
Wavelength (nm)

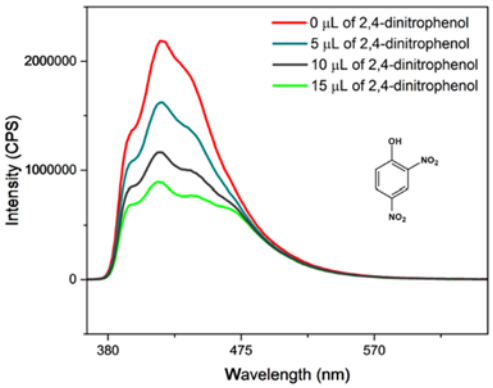
(o)


0 µL of Isoniazid
10 µL of Isoniazid
20 µL of Isoniazid
30 µL of Isoniazid
40 µL of Isoniazid
50 µL of Isoniazid
Intensity (CPS)
Wavelength (nm)

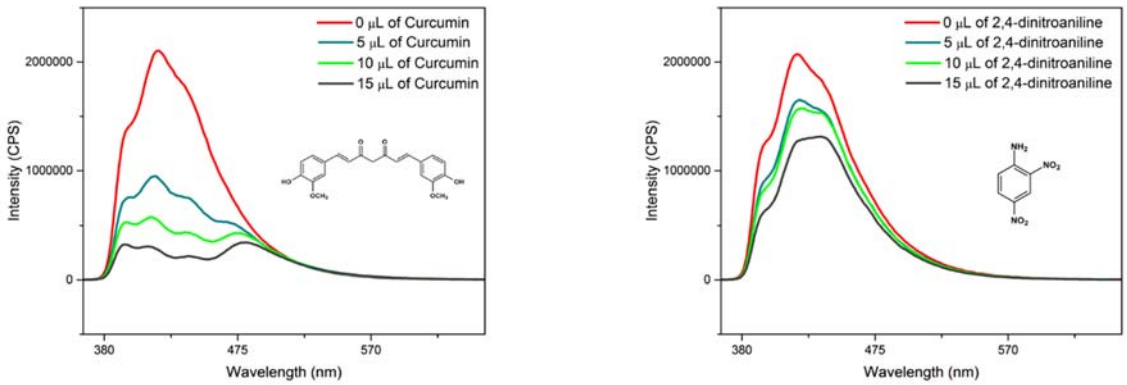
(p)


0 µL of 2,4-dinitrophenylhydrazine
5 µL of 2,4-dinitrophenylhydrazine
10 µL of 2,4-dinitrophenylhydrazine
15 µL of 2,4-dinitrophenylhydrazine
Intensity (CPS)
Wavelength (nm)

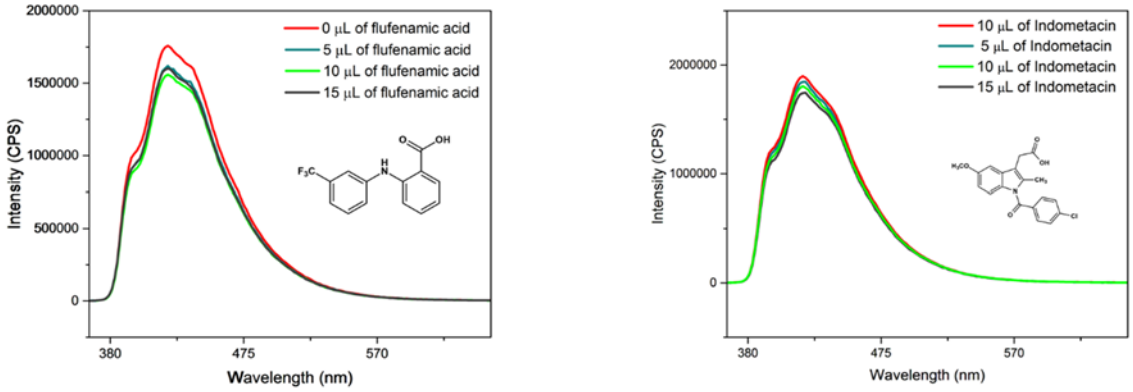
(q)


0 µL of 2,4-dinitrophenol
5 µL of 2,4-dinitrophenol
10 µL of 2,4-dinitrophenol
15 µL of 2,4-dinitrophenol
Intensity (CPS)
Wavelength (nm)

(r)

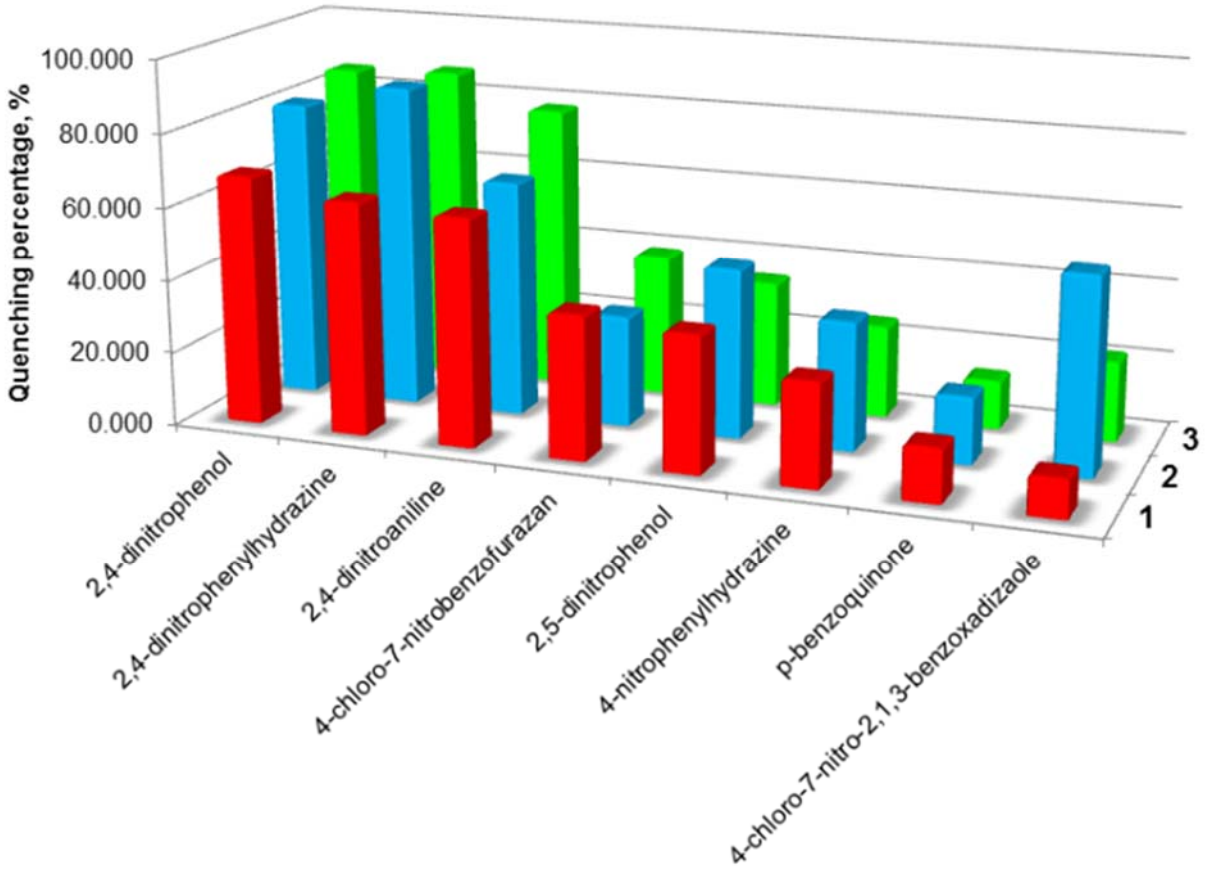


(s) (t)

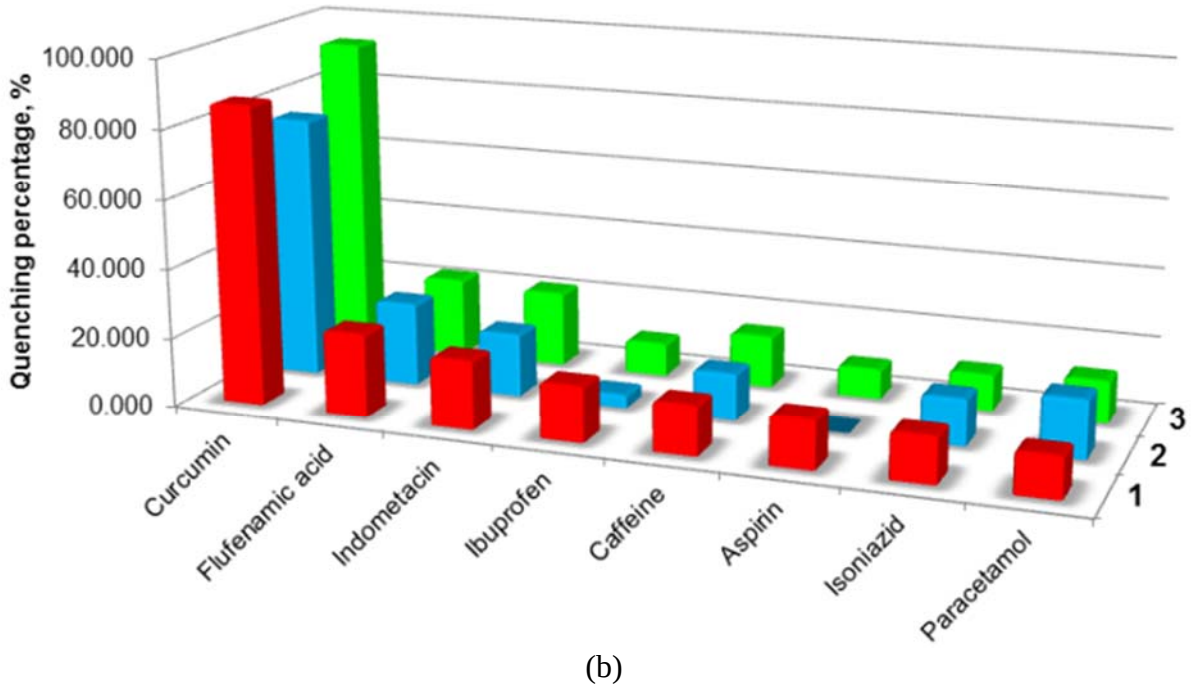


(u) (v)

Figure S16. PL spectral changes of compound **5** dispersed in DMF with (a) caffeine, (b) 2,5-dinitrophenol, (c) 2,4-dinitrophenylhydrazine, (d) 4-chloro-7-nitro-2,1,3-benzoxadiazole, (e) 2,4-dinitrophenol, (f) curcumin, (g) *p*-benzoquinone, (h) 2,4-dinitroaniline, (i) 4-chloro-7-nitrobenzofurazan, (j) 4-nitrophenylhydrazine, (k) aspirin, (l) ibuprofen, (m) paracetamol, (n) flufenamic acid, (o) indometacin, (p) isoniazid, (q) 2,4-dinitrophenylhydrazine (LOD), (r) 2,4-dinitrophenol (LOD), (s) curcumin (LOD), (t) 2,4-dinitroaniline (LOD), (u) flufenamic acid (LOD), (v) indometacin.



(a)



(b)

Figure S17. PL quenching efficiencies obtained from (a) selected nitro analytes and (b) selected pharmaceutical drugs by **1-3**.