Supporting Information

Upconverted nanoparticle-porphyrin metal organic framework platform for near-infrared detection of nitenpyram

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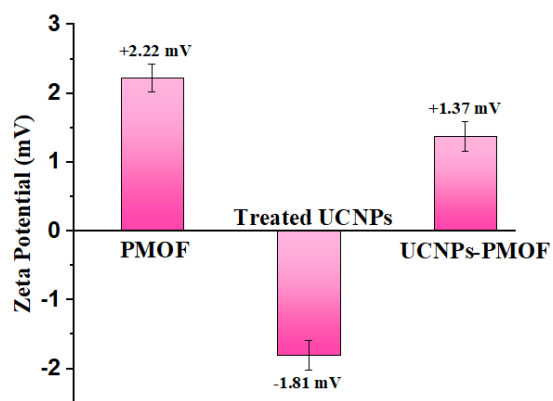*E-mail address for the corresponding author: yaocheng@njtech.edu.cn

Figure S1. Zeta potential of PMOF, Treated UCNPs and UCNPs-PMOF nanoparticles in ethanol solution.
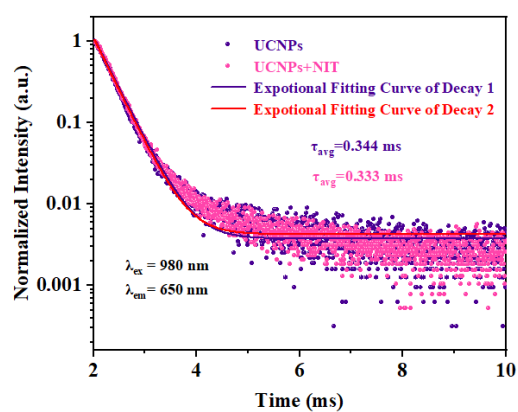

Figure S2. Lifetime decay curve of UCNPs at 654 nm before and after adding NIT.

Table S1. Comparison of structural strategies and sensing performance with reported fluorescent sensors for the detection of nitenpyram.

Fluorescent Probe	Detection method	Fluorescence Linear range	LOD	Whether the ratio	Ref.
N-CQDs @ SiO$_2$	Downconversion	0-300 mg·L^{-1}	1.53 mg·L^{-1}	No	[1]
EY @ Zr-MOF	Downconversion	0-0.1 mM	0.94 μM	No	[2]
Rho 6G @ 1	Downconversion	/	0.48 nM	Yes	[3]
Rho 6G @ 2	Downconversion	/	0.30 nM	Yes	[3]
PMOF	Downconversion	0.05 - 10.0 μg·mL^{-1}	0.03 μg·mL^{-1}	No	[4]
Ln-MOF	Downconversion	0-0.05 mM	0.71 nM	No	[5]
UCNPs-PMOF	Downconversion	0-115 μM	0.76 μM	No	This work
	Upconversion	0-115 μM	0.22 μM	Yes	

References

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