

Table S5. Statistics of relative bioluminescence induction period in 1,4-benzoquinone solution (Figure 8)

Samples	p		
	Concentrations		
Fe ₃ O ₄	>0.05		
Fe ₃ O ₄ /APTES	0.01		
Fe ₃ O ₄ /HA	0.0001		
Comparison by sample pairs			
Fe ₃ O ₄ /APTES- Fe ₃ O ₄	0.01		
Fe ₃ O ₄ /HA- Fe ₃ O ₄	0.01		
Fe ₃ O ₄ /HA- Fe ₃ O ₄ /APTES	>0.05		

Bioactivity in relation to control:

Samples	Concentrations, mg/L												
	4.7E-12 0.01	4.7E-11 0.01	4.E-10 >0.05	4.7E-9 >0.05	4.E-8 >0.05	4.E-7 >0.05	4.E-6 >0.05	4.E-5 >0.05	4.E-4 >0.05	4.7E-3 >0.05	4.7E-2 >0.05	4.7E-1 >0.05	
Fe ₃ O ₄ -control													
Fe ₃ O ₄ /APTES-control	1.1E-12 >0.05	1.1E-11 >0.05	1E-10 0.01	1E-9 0.01	1E-8 >0.05	1E-7 0.01	1E-6 >0.05	1E-5 >0.05	1E-4 >0.05	1.1E-3 >0.05	1.1E-2 >0.05	1.1E-1 >0.05	1.1E+0 0.01
Fe ₃ O ₄ /HA-control	4.9E-13 >0.05	4.9E-12 >0.05	4.9E-11 >0.05	4.9E-10 >0.05	4.9E-9 0.01	4.9E-8 0.01	4.9E-7 0.01	4.9E-6 0.01	4.9E-5 0.001	4.9E-4 0.01	4.9E-3 0.01	4.9E-2 0.01	4.9E-1 0.0001