

**CHEM****BIO**CHEM

## Supporting Information

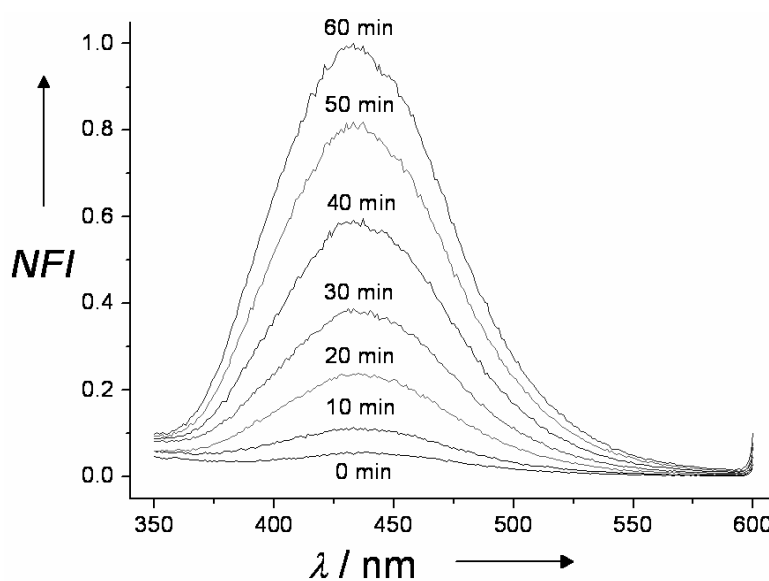
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# Supporting Information

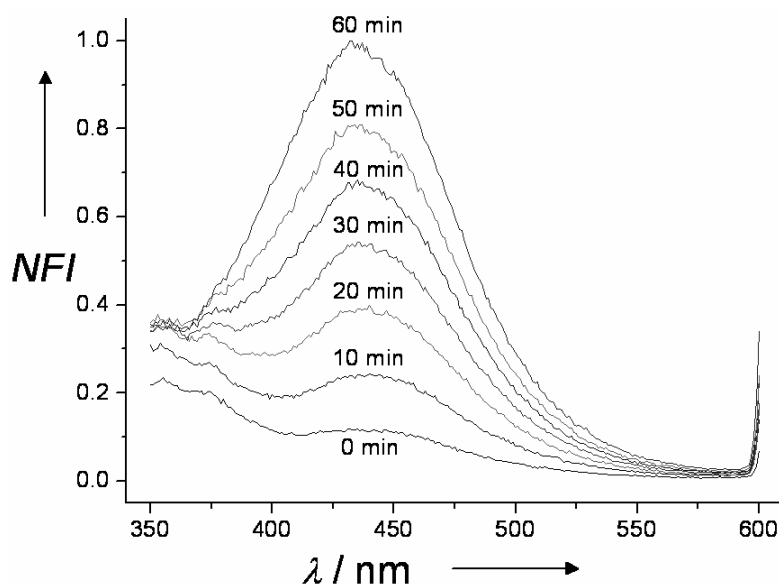
for

## Biomolecular Oxidative Damage Activated by Enzyme Logic Systems: Biologically Inspired Approach

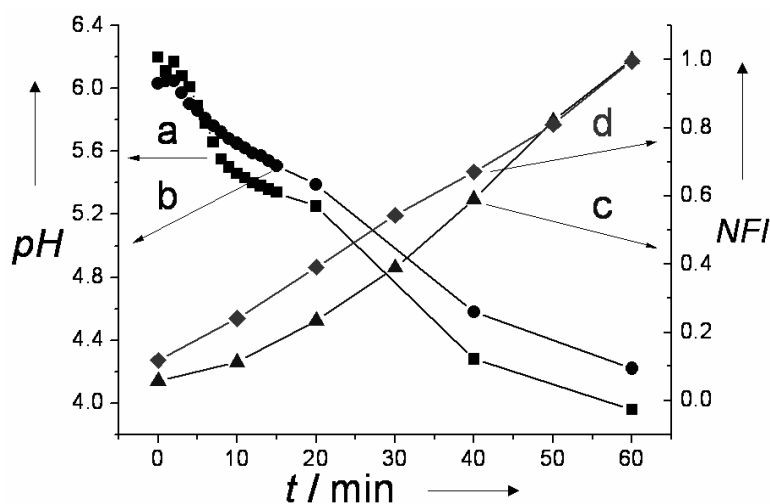
Jian Zhou, Galina Melman, Marcos Pita, Maryna Ornatska, Xuemei Wang,  
Artem Melman,\* and Evgeny Katz\*



**Figure S1:** Time-dependent increase of the normalized fluorescent intensity (NFI) generated upon reacting benzoic acid, 1 mM, with  $\text{Fe}^{3+}(\text{BHT})_2$  and the enzyme **AND** logic gate activated by 1,1 combination of the input signals. The solutions composition and the input signal concentrations are specified in the experimental section of the paper.



**Figure S2:** Time-dependent increase of the normalized fluorescent intensity (NFI) generated upon reacting benzoic acid, 1 mM, with  $\text{Fe}^{3+}(\text{BHT})_2$  and the enzyme **OR** logic gate activated by **1,1** combination of input signals. The solutions composition and the input signal concentrations are specified in the experimental section of the paper.



**Figure S3.** Time-dependent decrease of the solution pH value and the corresponding increase of the normalized fluorescent intensity (NFI) generated upon reacting benzoic acid, 1 mM, with  $\text{Fe}^{3+}(\text{BHT})_2$  and the enzyme logic gates activated by **1,1** combination of input signals: a) pH changes produced by the **AND** gate, b) pH changes produced by the **OR** gate, c) NFI triggered by the **AND** gate (derived from Figure S1), d) NFI triggered by the **OR** gate (derived from Figure S2). The solutions composition and the input signal concentrations are specified in the experimental section of the paper.