

Article

# A Novel Graphene Oxide-Based Aptasensor for Amplified Fluorescent Detection of Aflatoxin M<sub>1</sub> in Milk Powder

Xiaodong Guo <sup>1,2,3,†</sup>, Fang Wen <sup>1,3,†</sup>, Qinqin Qiao <sup>1,3</sup>, Nan Zheng <sup>1,3,4</sup>, Matthew Saive <sup>2</sup>, Marie-Laure Fauconnier <sup>2</sup> and Jiaqi Wang <sup>1,3,4,\*</sup>

<sup>1</sup> Key Laboratory of Quality & Safety Control for Milk and Dairy Products of Ministry of Agriculture and Rural Affairs, Institute of Animal Sciences, Chinese Academy of Agricultural Sciences, 100193 Beijing, China

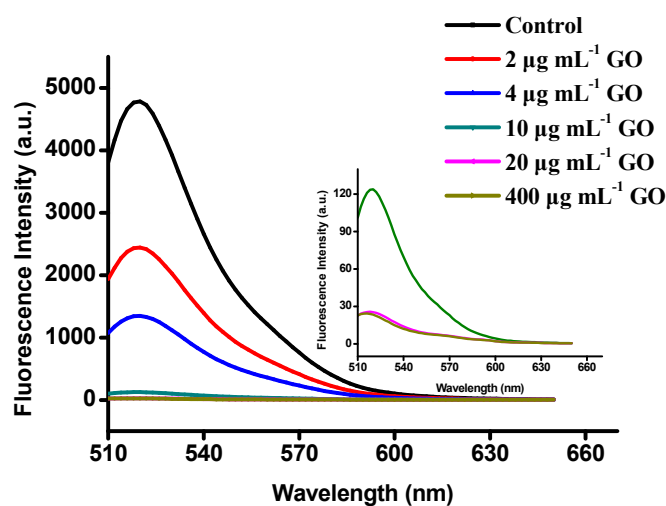
<sup>2</sup> Chimie générale et organique, Gembloux Agro-Bio Tech, Université de Liège, Passage des Déportés, 25030 Gembloux, Belgium

<sup>3</sup> Laboratory of Quality and Safety Risk Assessment for Dairy Products of Ministry of Agriculture and Rural Affairs, Institute of Animal Sciences, Chinese Academy of Agricultural Sciences, 100193 Beijing, China

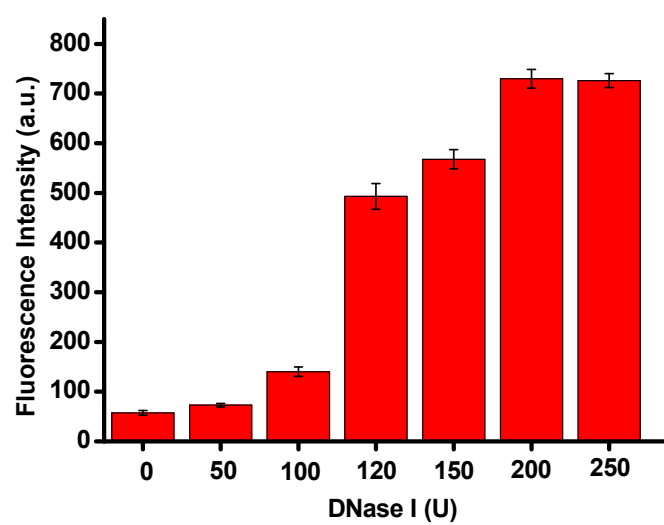
<sup>4</sup> State Key Laboratory of Animal Nutrition, Institute of Animal Science, Chinese Academy of Agricultural Sciences, 100193 Beijing, China

<sup>†</sup> The authors contributed equally.

\* Correspondence: wangjiaqi@caas.cn; Tel: +86-10-62816069



**Figure 1.** Fluorescence emission spectra of the aptasensor in the addition of GO at various concentrations. The experiment conditions are as following:  $\lambda_{\text{ex}} = 480 \text{ nm}$ , 200 nM AFM<sub>1</sub> aptamer.



**Figure S2.** Fluorescence intensity with the addition of DNase I at various concentrations. The experiment conditions are as follows: Excitation and emission wavelength are at  $\lambda_{ex}/\lambda_{em} = 480/520$  nm, 200 nM AFM<sub>1</sub> aptamer, 20  $\mu\text{g mL}^{-1}$  GO, 10 ng mL<sup>-1</sup> AFM<sub>1</sub>.