

## CORRECTION

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# Correction: Ultrafast conversion of carcinogenic 4-nitrophenol into 4-aminophenol in the dark catalyzed by surface interaction on BiPO<sub>4</sub>/g-C<sub>3</sub>N<sub>4</sub> nanostructures in the presence of NaBH<sub>4</sub>

Ahmed B. Azzam,<sup>\*a</sup> Ridha Djellabi,<sup>b</sup> Sheta M. Sheta<sup>c</sup> and S. M. El-Sheikh<sup>d</sup>

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Correction for 'Ultrafast conversion of carcinogenic 4-nitrophenol into 4-aminophenol in the dark catalyzed by surface interaction on BiPO<sub>4</sub>/g-C<sub>3</sub>N<sub>4</sub> nanostructures in the presence of NaBH<sub>4</sub>' by Ahmed B. Azzam *et al.*, *RSC Adv.*, 2021, **11**, 18797–18808. DOI: 10.1039/D1RA02852A.

The authors regret that some misleading statements were included in section 3.2.1 'Effect of initial concentration on 4-NP'. The corrected version of section 3.2.1 is presented below. There are no changes to Fig. 8 or its caption.

<sup>a</sup>Faculty of Science, Chemistry Department, Helwan University, Ain Helwan, Cairo 11795, Egypt. E-mail: [ahmed\\_azzam2000@hotmail.com](mailto:ahmed_azzam2000@hotmail.com); Tel: +201285259709

<sup>b</sup>Università degli Studi di Milano, Dip. Chimica and INSTM-UdR Milano, Via Golgi, 19, 20133 Milano, Italy

<sup>c</sup>Department of Inorganic Chemistry, National Research Centre, 33, El-Behouth St., Dokki, Giza 12622, Egypt

<sup>d</sup>Nanomaterials and Nanotechnology Department, Advanced Materials Division, Central Metallurgical R & D Institute (CMRDI), P. O. Box, 87 Helwan, 11421 Cairo, Egypt

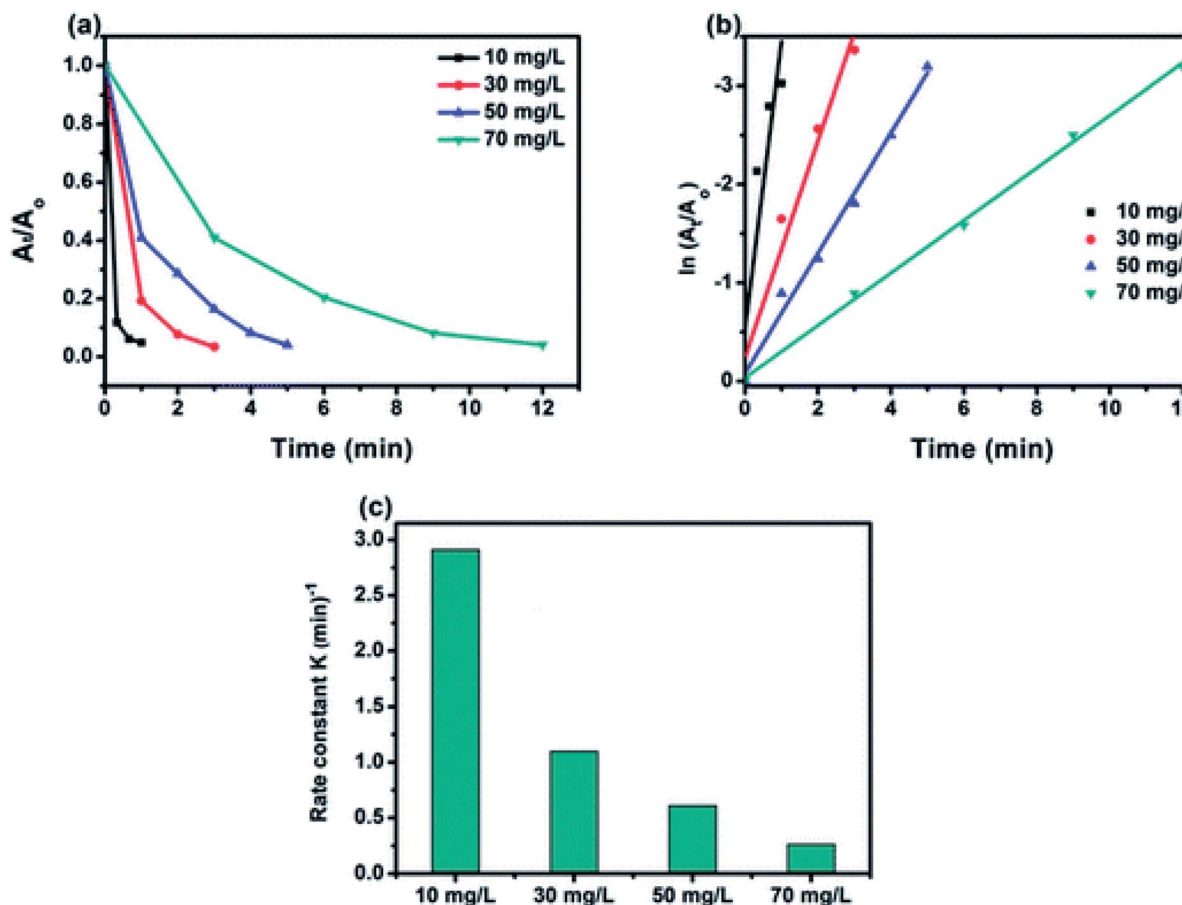



Fig. 8 Effect of initial concentration on reduction rate of 4-NP (a); corresponding linear transform  $\ln(A_t/A_0) = f(t)$  of the 4-NP reduction kinetics curves (b); comparison of the rate constant value for the reduction of the 4-NP over initial different concentration (c). ([4-NP] = 10–70  $\text{mg L}^{-1}$ , [catalyst] = 0.5  $\text{g L}^{-1}$ ).

### 3.2.1 Effect of initial concentration of 4-NP

The effect of the initial concentration of 4-NP on the catalytic efficiency rate using 50%  $\text{BiPO}_4/\text{g-C}_3\text{N}_4$  catalyst was carried out by varying the concentration from 10 to 70  $\text{mg L}^{-1}$ , and the obtained results are shown in Fig. 8a. Interestingly, 50%  $\text{BiPO}_4/\text{g-C}_3\text{N}_4$  was able to reduce all 4-NP solutions at concentrations from 10 to 70  $\text{mg L}^{-1}$ , reflecting the high efficiency of such a catalyst towards this 4-NP reduction. At lower concentrations, a superior constant rate was recorded due to the availability of a large number of catalytic sites per given amount of 4-NP moles. And *vice versa*, the higher the concentration, the lower the rate constant (Fig. 8b), due to the high competition of 4-NP molecules on the limited sites. In addition, the number of molecules adsorbed at the surface of the  $\text{BiPO}_4/\text{g-C}_3\text{N}_4$  heterojunction increases with the increase in concentration of 4-nitrophenol and hence, the surface becomes saturated by 4-nitrophenol molecules. This leads to a decrease in concentration of  $\text{BH}_4^-$  ions approaching the surface of the  $\text{BiPO}_4/\text{g-C}_3\text{N}_4$  heterojunction, hence lowering the rate of hydrogen transfer from  $\text{BH}_4^-$  ion to the 4-nitrophenol molecule.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

