



## Retraction Note: Supported black phosphorus nanosheets as hydrogen-evolving photocatalyst achieving 5.4% energy conversion efficiency at 353 K

Retraction to: *Nature Communications*  
<https://doi.org/10.1038/s41467-018-03737-4>,  
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The authors have retracted this article following discussion with Editors. It has come to our attention that there has been incorrect use of data in some figures in the published paper. The figure panels affected are Figure 1d, Supplementary Figure 5, Supplementary Figure 18, and Supplementary Figure 20. Some data from our previously published work<sup>1</sup> was inadvertently duplicated during the figure preparation for this paper. The figures in question are Figure 1b and 1c, Figure 3a and 3b, and Supplementary Figure 7. There was an error in the value of the x-axis in Figure 4b. Additionally, the original AFM image had not been processed properly thus the line-cut profiles presented (Figure 2e) are incorrect. We have shared the corrected Figures with the Editorial office, and all original data and images regarding the characterizations in question, including XRD, XPS, absorption spectra and AFM images, can be provided on request. In view of so many figures being affected, we wish to retract the Article. In addition, although Yue Tian worked at the Molecular Foundry, the affiliation should not be included for this study. All authors agree to this retraction.

### Reference

1. Tian, B. et al. Facile bottom-up synthesis of partially oxidized black phosphorus nanosheets as metal-free photocatalyst for hydrogen evolution. *Proc. Natl Acad. Sci. USA* **115**, 4345–4350 (2018).

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