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## Retraction: Comprehensive insights into the charge dynamics process and excellent photoelectric properties of heterojunction solar cells

Xiangyang Liu,\* Shun Wang, Haiwu Zheng, Xiuying Cheng and Yuzong Gu\*

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Retraction of 'Comprehensive insights into the charge dynamics process and excellent photoelectric properties of heterojunction solar cells' by Xiangyang Liu *et al.*, *Phys. Chem. Chem. Phys.*, 2016, **18**, 24299–24306.

We, the named authors, hereby wholly retract this *Physical Chemistry Chemical Physics* article. Although a standard silicon photodiode detector was used to calibrate the light intensity before the measurements were taken, recent further investigations have established that the light intensity in our testing system was very unstable. In order to ensure the accuracy of our original data, we prepared 100 devices with Zn<sub>2</sub>SnO<sub>4</sub> nanoparticles/Cu<sub>4</sub>Bi<sub>4</sub>S<sub>9</sub>-graphene nanoplatelets (ZTO/CBS-GNs). The new results indicate that the power conversion efficiency (PCE) of the ZTO/CBS-GNs solar cell is much higher than the reported value in our paper. The unstable light intensity source resulted in unreliable PCEs and therefore the conclusions of our paper can no longer be relied upon. We retract this article to avoid misleading readers and to protect the integrity and accuracy of the scientific record.

Signed: Xiangyang Liu, Shun Wang, Haiwu Zheng, Xiuying Cheng and Yuzong Gu

Date: 7th January 2019

Retraction endorsed by Katie Lim, Executive Editor, *Physical Chemistry Chemical Physics*.

