PHOTONICS Research

Elucidation of "phase difference" in Raman tensor formalism: erratum

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This erratum corrects the errors that appeared in Photon. Res. 6, 709 (2018) associated with the polarization description of the experimental optical path, as well as the image errors. © 2020 Chinese Laser Press

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The authors wish to correct the errors related to the polarization description of the experimental optical path in the paper [1] as well as the image errors in the post-processing to avoid

misleading readers. But the specific scientific discussion has not been affected by these errors.

The details of the correction are as follows.

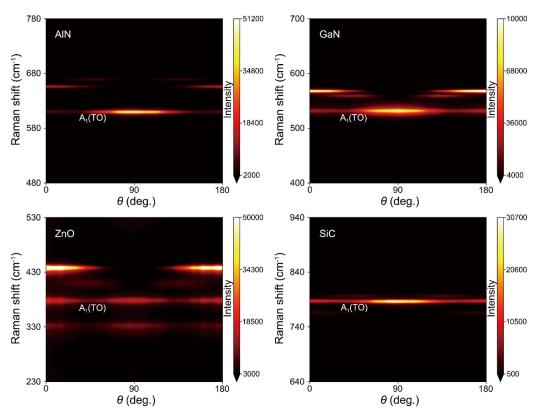


Fig. 1. Angle-dependent polarized Raman spectra of AlN, GaN, ZnO, SiC bulk single crystals obtained on the *m* plane under a parallel polarization configuration for different rotation angles increasing from 0° to 180° with a step of 5°. The $A_1(TO)$, $E_1(TO)$, E_2^2 phonons of each sample can be clearly identified. The parallel polarization configuration is written as $X(\alpha\alpha)$ \bar{X} in shorthand, where X and \bar{X} denote the direction of propagation of incident and scattered lights, respectively; α represents the direction of polarization. Here, $\alpha = y \cdot \cos \theta$, in which θ is the angle between the polarization vector and the y axis.

- 1. The polarization direction of the optical path given by the instrument is 90° different from the actual polarization direction, so the values of a and b measured by the experiment should be exchanged.
- Page 710. The angle θ shall be corrected to the angle between the polarization vector of incident light and the y axis (the test structure is the same as that of the Ref. [2]).
- Page 711. The values of |a| and |b| should be exchanged in Table 1, and the discussion on those datum should also be exchanged in the text.
 - 2. The errors in the post-processing of images.

• Page 710. Figure 1 shows the experimental test data. In the stage of image processing, in order to keep the picture font consistent, the ordinate was manually input in PS. Due to some processing errors, the annotations of the vertical coordinates in each mapping image are the same. The corrected figures read as Fig. 1.

REFERENCES

- 1. W. Zheng, J. Yan, F. Li, and F. Huang, "Elucidation of "phase difference" in Raman tensor formalism," Photon. Res. 6, 709–712 (2018).
- W. Zheng, R. Zheng, F. Huang, H. Wu, and F. Li, "Raman tensor of AIN bulk single crystal," Photon. Res. 3, 38–43 (2015).