
Influence of Faraday elliptical birefringence on the acousto-optic diffraction efficiency: a case of isotropic interaction with quasi-longitudinal acoustic waves in KH_2PO_4 crystals. Errata

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Abstract. We introduce corrections to our recent article [1].

Keywords: acousto-optics, Faraday effect, ellipticity of eigenwaves, diffraction efficiency, KH_2PO_4 crystals

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We have found errors in our recent work [1]. Correction of these errors includes the following changes that must be introduced in its text and formulae. Below Eq. (6), the sentence should be written as: "...and implies the angle between the wavevector of AW and the X axis."

On page 98, the formulas:

$$\tan 2\zeta_2 = \frac{(C_{13} + C_{44}) \sin 2\Theta}{(C_{11} - C_{44}) \cos^2 \Theta + (C_{44} - C_{33}) \sin^2 \Theta}$$

and

$$\tan 2\zeta'_2 = \frac{(C_{13} + C_{44}) \sin 2\Theta'}{(0.5(C_{11} + C_{12} + 2C_{66}) - C_{44}) \cos^2 \Theta' + (C_{44} - C_{33}) \sin^2 \Theta'}$$

should be written as:

$$\tan 2\zeta_2 = \frac{(C_{13} + C_{44}) \sin 2\theta}{(C_{11} - C_{44}) \cos^2 \theta + (C_{44} - C_{33}) \sin^2 \theta}$$

and

$$\tan 2\zeta'_2 = \frac{(C_{13} + C_{44}) \sin 2\theta'}{(0.5(C_{11} + C_{12} + 2C_{66}) - C_{44}) \cos^2 \theta' + (C_{44} - C_{33}) \sin^2 \theta'}, \text{ respectively. In the}$$

Eqs. (9,10), the symbol Θ should be written as θ .

Reference

1. Mys O, Adamenko D and Vlokh R, 2023. Influence of Faraday elliptical birefringence on the acousto-optic diffraction efficiency: a case of isotropic interaction with quasi-longitudinal acoustic waves in KH_2PO_4 crystals. **24**(1): 95-103.

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Анотація Внесено виправлення до нашої недавньої статті [1].

Ключові слова: акустооптика, ефект Фарадея, еліптичність власних хвиль, дифракційна ефективність, кристали KH_2PO_4