# Optical Engineering 

# Errata: Lattice location of $\mathbf{H f}$ and its interaction with other impurities in $\mathrm{LiNbO}_{3}$ : a review 

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This article [Opt. Eng. 53(6), 060901 (2014)] was originally published on 12 June 2014 with two typesetting errors, described below.

In the first line of the second column of p. 4, a multiplication sign was erroneously inserted. The correct line should read: "... of the $\gamma-\gamma$ cascade from the decay of ${ }^{111}$ In ( $T_{1 / 2}=80 \mathrm{~ns}$ )...'

In row 3 of Table 1 , the variable $\eta$, representing asymmetry parameters, was mistakenly typeset as H. The corrected table appears below.

The paper was corrected online on 13 June 2014. It appears correctly in print.

Table 1 Quadrupole interaction frequencies $\left(\nu_{Q}\right)$, asymmetry parameters $(\eta)$, quadrupole moments $(Q)$, and derived absolute values of the principal component of the electric field gradients (EFG), $V_{z z}$, for perturbed angular correlation, Mössbauer effect, and nuclear quadrupole resonance probes replacing Li and Nb sites in $\mathrm{LiNbO}_{3}$. The Sternheimer antishielding factor $\left(1-\gamma_{\infty}\right)$ was used to take into account the influence of the electron shells of the probes and to calculate the lattice EFG, $V_{z z}$ (latt). The principal component of the EFG was oriented along the $\langle 0001\rangle$ axis in all cases. The numbers in parentheses indicate the associated uncertainties.

| Probe | ${ }^{44} \mathrm{Ti} / \mathrm{Sc}$ | ${ }^{57} \mathrm{Fe}$ | ${ }^{111} \mathrm{In} / \mathrm{Cd}$ | ${ }^{181} \mathrm{Hf} / \mathrm{Ta}$ | ${ }^{93} \mathrm{Nb}$ | ${ }^{181} \mathrm{Hf} / \mathrm{Ta}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Lattice site | Li | Li | Li | Li | Nb | Nb |
| $\nu_{Q}(\mathrm{MHz})$ | $15.4(2)^{49}$ | $11.6(1.2)^{52}$ | $192(2)^{54}$ | $1154(12)^{47}$ | $22.0(1)^{50}$ | $327(4)^{47}$ |
| $\eta$ | $0.19^{49}$ | $<0.15^{52}$ | $0.16(2)^{54}$ | $0.21(1)^{47}$ | $\sim 0^{50}$ | $0.15(1)^{47}$ |
| $\|Q\|[\mathrm{b}]^{72}$ | $0.21(2)$ | $0.16(1)$ | $0.83(13)$ | $2.36(5)$ | $0.37(2)$ | $2.36(5)$ |
| $\left\|V_{z z}\right\|\left(10^{17} \mathrm{~V} / \mathrm{cm}^{2}\right)$ | $3.0(3)$ | $3.0(4)$ | $9.6(1.5)$ | $20.2(5)$ | $2.49(1)$ | $6.2(1)$ |
| $1-\gamma_{\infty}$ | 11.4 | 8.97 | 30.3 | 61.9 | 24 | 61.9 |
| $\mid V_{z z}($ latt $) \mid 10^{17} \mathrm{~V} / \mathrm{cm}^{2}$ | $0.27(3)$ | $0.33(4)$ | $0.32(5)$ | $0.32(1)$ | $0.104(5)$ | $0.093(2)$ |

