Erratum: Magnetoelectric bilayer and multilayer structures of magnetostrictive and piezoelectric oxides [Phys. Rev. B 64, 214408 (2001)]

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The necessary correction concerns Eq. (2) for the transverse magnetoelectric (ME) coefficient for a bilayer of magnetostrictive and piezoelectric phases. The exact expression given below takes into account the in-plane piezomagnetic coupling q_{12}^m measured perpendicular to the static magnetic field:

$$\alpha_{\mathbf{E},31}=\frac{\delta \mathbf{E}_3}{\delta \mathbf{H}_1}=\frac{-d_{31}^p(q_{11}^m+q_{12}^m)v_m}{(s_{11}^m+s_{12}^m)\varepsilon_{33}^{T,p}v_p+(s_{11}^p+s_{12}^p)\varepsilon_{33}^{T,p}v_m-2(d_{31}^p)^2v_m}.$$

The expression reduces to Eq. (2) for $q_{11}^m=q_{12}^m$. Such a condition, however, is not satisfied in nickel ferrite. Our estimation of q_{12}^m from data on magnetostriction for the ferrite indicates a small positive value for q_{12}^m (compared to a large negative value for q_{11}^m). The corrected theoretical values of $\alpha_{E,31}$ are thus a factor of 2 smaller than the estimates in Figs. 6 and 7. The overall good agreement between data and theory claimed in the work, however, is not affected by the correction to calculated values.

