Erratum: "A complete set of material properties of single domain $0.26Pb(In_{1/2}Nb_{1/2})O_3-0.46Pb(Mg_{1/3}Nb_{2/3})O_3-0.28PbTiO_3$ single crystals" [Appl. Phys. Lett. 96, 012907 (2010)]

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In our publication[1] the reference frame corresponds to a reference frame rotated around the z-axis by 180° as described in Ref. 2. To avoid confusion, we provide a revised Table II for the complete data set based on the standard coordinate system (the 0° rotation one in Ref. 2).

Figures 2 and 3 were recalculated based on the standard coordinate system. The maximum values of d_{33}^*, k_{33}^*, ε_{33}^*, and s_{33}^* occur at 60.7°, 57.8°, 90°, and 51.5°, respectively, from the poling direction $[111]_c$.

TABLE II. (In standard coordinates) Measured and derived material properties of $0.26Pb(In_{1/2}Nb_{1/2})O_3-0.46Pb(Mg_{1/3}Nb_{2/3})O_3-0.28PbTiO_3$ single-domain single crystal poled in $[111]_c$ (density: $\rho=8102\ kg/m^3$).

Elastic stiffness constants, c_{ij} ($10^{10}\ N/m^2$)

c_{11}^E [a]	c_{12}^E	c_{13}^E	c_{14}^E	c_{33}^E	c_{44}^E [a]	c_{66}^E [a]	c_{11}^D	c_{12}^D	c_{13}^D	c_{14}^D	c_{33}^D [a]	c_{44}^D	c_{66}^D
20.96	8.29	6.46	−2.66	17.65	2.10	6.33	22.01	8.25	5.61	−1.08	19.81	6.68	6.88

Elastic compliance constants, s_{ij} ($10^{-12}\ m^2/N$)

s_{11}^E [a]	s_{12}^E	s_{13}^E	s_{14}^E	s_{33}^E	s_{44}^E	s_{66}^E	s_{11}^D	s_{12}^D	s_{13}^D	s_{14}^D	s_{33}^D [a]	s_{44}^D	s_{66}^D
10.43	−6.40	−1.49	21.38	6.76	101.85	33.75	5.58	−1.87	−1.09	1.21	5.88	15.36	14.91

Piezoelectric coefficients, $e_{i\lambda}$ (C/m^2)				$d_{i\lambda}$ ($10^{-12}\ C/N$)				$g_{i\lambda}$ ($10^{-3}\ Vm/N$)				$h_{i\lambda}$ ($10^8\ V/m$)			
e_{15}	e_{22}	e_{31}	e_{33}	d_{15}	d_{22}	d_{31}	d_{33}	g_{15}	g_{22}	g_{31}	g_{33}	h_{15}	h_{22}	h_{31}	h_{33}
18.78	−6.48	−5.19	8.72	2190	−511	−34	74	3.93	−0.92	−0.55	1.20	24.39	−8.41	−9.74	16.38

Dielectric constants, $\varepsilon(\varepsilon_0)$				$\beta(10^{-4}/\varepsilon_0)$				Electromechanical coupling factors $k_{i\lambda}$			
ε_{11}^S [a]	ε_{33}^S [a]	ε_{11}^T [a]	ε_{33}^T [a]	β_{11}^S	β_{33}^S	β_{11}^T	β_{33}^T	k_{15} [a]	k_{31} [a]	k_{33} [a]	k_t [a]
870	601	6286	702	11.49	16.63	15.91	14.24	0.92	0.13	0.36	0.33

[a]Directly measured properties.

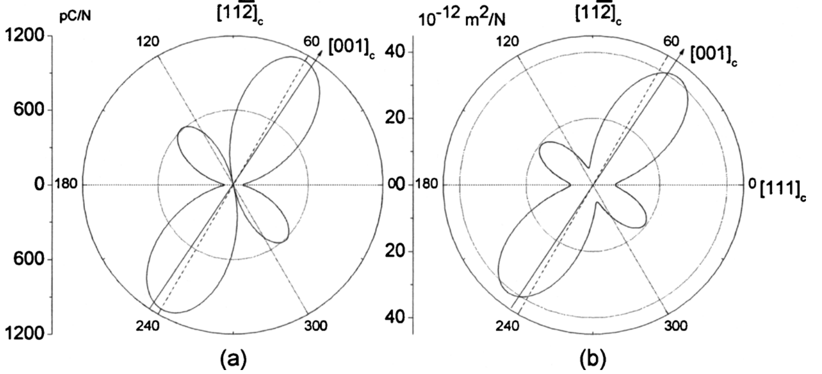

FIG. 2. Orientation dependence of piezoelectric constant d_{33}^* (a) and elastic compliance s_{33}^* (b), of single domain $0.26Pb(In_{1/2}Nb_{1/2})O_3-0.46Pb(Mg_{1/3}Nb_{2/3})O_3-0.28PbTiO_3$ single crystal.

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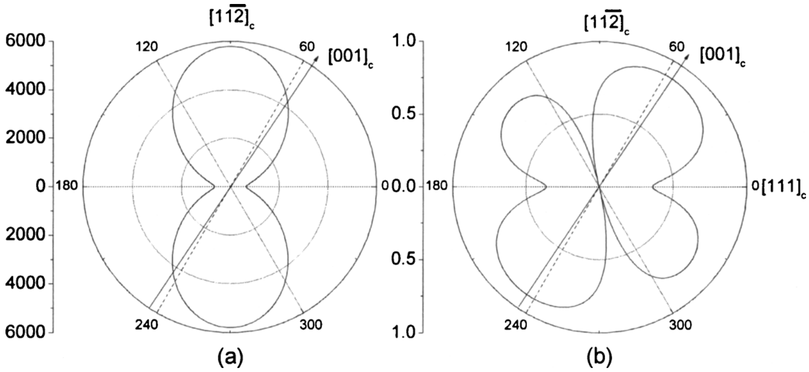

FIG. 3. Orientation dependence of dielectric constant ε_{33}^{*} (a) and electromechanical coupling factor k_{33}^{*} (b) of single domain $0.26Pb(In_{1/2}Nb_{1/2})O_3-0.46Pb(Mg_{1/3}Nb_{2/3})O_3-0.28PbTiO_3$ single crystal.

[1]X. Liu, S. Zhang, J. Luo, T. R. Shrout, and W. Cao, Appl. Phys. Lett. **96**, 012907 (2010).
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