

Erratum : “Theoretical stability of the polarization in insulating ferroelectric/semiconductor structures”

Watanabe, Yukio
Kyushu Institute of Technology

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ERRATA

Erratum: "Theoretical stability of the polarization in insulating ferroelectric/semiconductor structures" [J. Appl. Phys. 83, 2179 (1998)]

Yukio Watanabe

Kyushu Institute of Technology, Kitakyushu, Fukuoka 804, Japan

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The values of l_d should be doubled in Figs. 2, 4–11, and 15, and also on p. 2184, right column, line 15 and line 12 from the bottom and p. 2185, right column, line 9 from the top.

The values of l_e should be doubled on p. 2185, right column, lines 10 and 13 from the top, on p. 2186, left column, line 8, "a half of this number" should be changed to "the same," and on p. 2186, right column, line 3, "halves" should be changed to "the same as."

Figure 7 should be replaced by the new one shown here.

Equation (14) should be corrected as follows:

$$F_{d1} = \epsilon_0/2 \int_0^{2a} dy \int_0^{l_f} dx (\nabla \Psi(x,y))^2 / 2al_f$$

$$= \pi a \left(\sum' n^{-3} r_n^2 \sinh 2n\kappa l_f \sinh^2 n\kappa l_d \right) / 2\epsilon_0 l_f \quad (14a)$$

$$F_{d2} = \epsilon_d \epsilon_0 / 2 \int_0^{2a} dy \int_{l_f}^{l_f+l_d} dx [\nabla \Psi(x,y)]^2 / 2al_f$$

$$= \pi a \left(\sum' n^{-3} r_n^2 \epsilon_d \sinh^2 n\kappa l_f \sinh 2n\kappa l_d \right) / 2\epsilon_0 l_f \quad (14b)$$

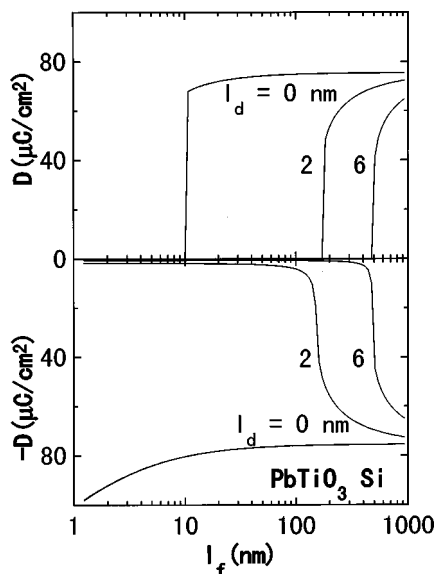


FIG. 7. Thickness (l_f)-dependence of D for $l_d=0, 2, 6$ nm and $\delta\phi=-1$ eV in $\text{PbTiO}_3/\text{SiO}_2/\text{Si}$ at 25 °C. The curves for $N_A=n_i$ and 10^{18} cm^{-3} are plotted but are indistinguishable from each other.