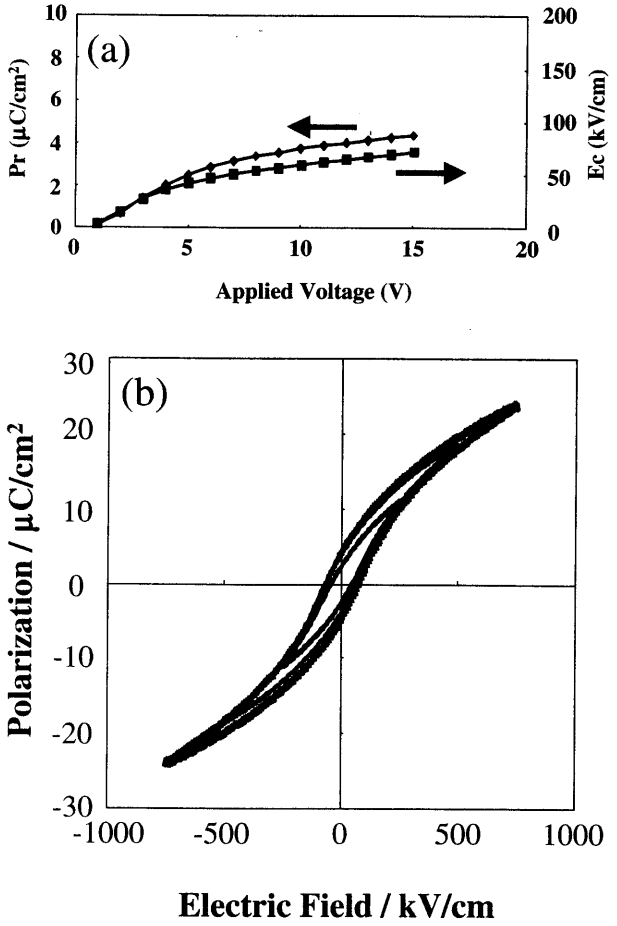

Fig. 8. P_r and E_c as a function of applied voltage for $Bi_{3.35}La_{0.75}Ti_3O_{12}$ thin films prepared at 550°C using excimer UV irradiation: (a) Saturation property, (b) P–E hysteresis loop at applied voltage of 15 V.

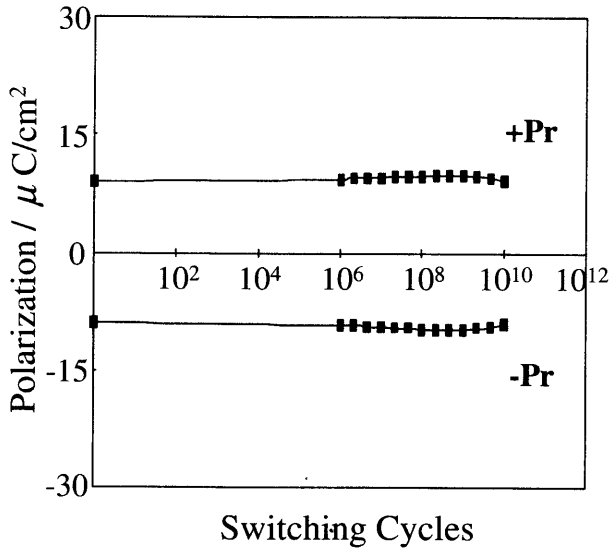

Fig. 10. Fatigue property of $Bi_{3.35}La_{0.75}Ti_3O_{12}$ thin films prepared at 600°C using excimer UV irradiation before and after 10^{10} switching cycles.

2. The excimer UV irradiation onto as-deposited films at 300°C in O_2 atmosphere was very effective in removing the residual organic groups in the gel films and in lowering the crystallization temperature of BLT to 550°C.

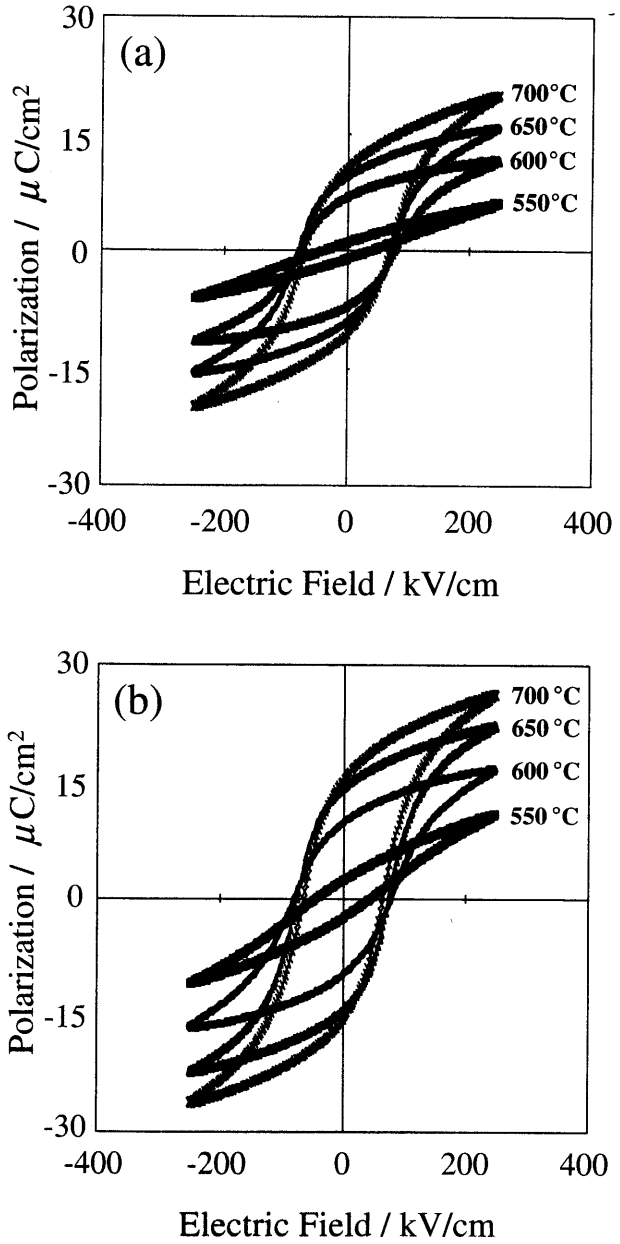

Fig. 9. P–E hysteresis loops of $Bi_{3.35}La_{0.75}Ti_3O_{12}$ thin films prepared at the temperature of 550–700°C by RTA without (a) and with (b) excimer UV irradiation.

3. The use of an excimer UV lamp further resulted in the easy formation of single-phase BLT thin films with a high (117) preferred orientation and with a homogeneous microstructure consisting of fine grains.
4. The 600°C-annealed BLT thin films subjected to excimer UV irradiation showed P_r of 9.8 μC/cm^2 and E_c of 78 kV/cm. Synthesized BLT films with appropriate ferroelectric properties are expected for use in the ferroelectric layers of FeRAM devices.

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