Thin-Film Capacitor Based on the Strontium Titanate Formed by the Sol Gel Technique

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Abstract: A thin-film ferroelectric capacitor was produced on a silicon substrate. A multilayer strontium titanate film of 280 nm thickness is the base of the capacitor. This film was made by the sol gel technique at the annealing temperature of 750C. The bottom electrode was produced from platinum and the upper one was produced from nickel. The mean value of the dielectric constant is 153 and the standard deviation is 12. The mean value of the dielectric loss tangent is 0.06 and the standard deviation is 0.01.