

## **Ferroelectricity in Nano-Composite Films of Sodium Nitrite: Starch Prepared by Drop Cast Technique**

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**Abstract :** Nano-composite films of sodium nitrite (NaNO<sub>2</sub>): Starch with different proportions of NaNO<sub>2</sub> and Starch have been prepared by drop cast technique. The ferroelectric hysteresis loops (P-V) have been traced using modified Sawyer-Tower circuit. The films containing equal proportions of NaNO<sub>2</sub> and Starch exhibit optimized ferroelectric properties. The stability of the remanent polarization, Pr in the optimized nano-composite films exhibit improved stability over the pure NaNO<sub>2</sub> films. The Atomic Force Microscopy (AFM) has been employed to investigate the surface morphology. AFM images clearly reveal the nano sized particles of NaNO<sub>2</sub> dispersed in starch with small value of surface roughness.

**Keywords :** ferroelectricity, nano-composite films, Atomic Force Microscopy (AFM), nano composite film

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