

## Effects of Substrate Temperature on the Properties of Indium Nitride Thin Films Grown on Flexible Prepared by Reactive Sputtering Method

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In this study, indium nitride (InN) thin films were deposited on kapton polyimide flexible substrate by reactive radio frequency (RF) sputtering method using indium target in a mixture of Ar and N<sub>2</sub> gases. The InN thin films were deposited under different substrate temperatures, i.e., 100°C and 200°C. The effects of substrate temperature on structural, surface morphologies and optical properties of InN thin films were systematically investigated by using X-ray diffraction technique, field emission scanning electron microscope, energy dispersive X-ray spectroscopy, and Fourier transform infrared spectroscopy.