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Title: Preferential orientation, microstructure and functional properties of SnO₂: Sb thin film: the effects of post-growth annealing

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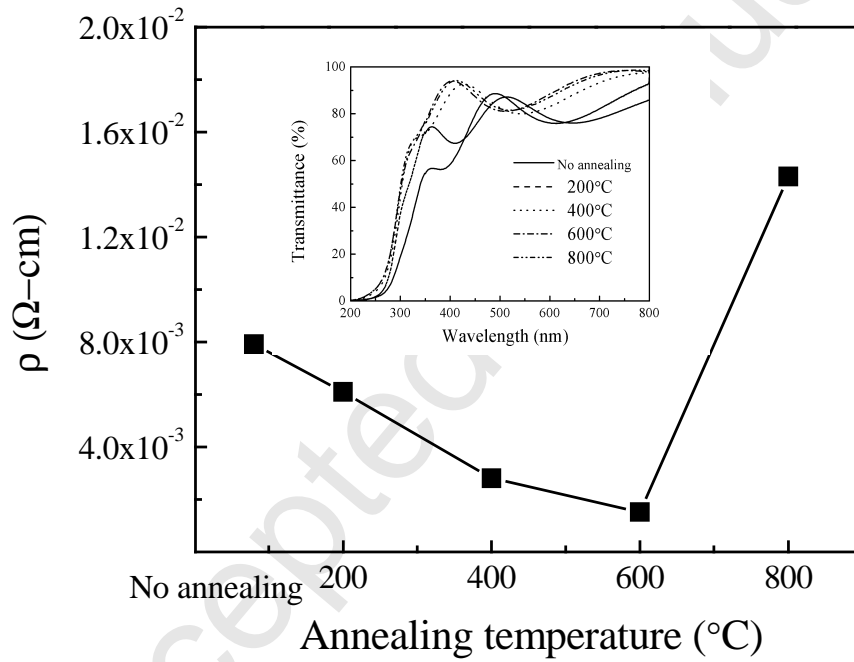
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Texture coefficients were used to analyze the effects of annealing temperature.

The scattering mechanisms as a function of annealing temperature were studied.

The optimal optical transmittance was 84.9% when annealed at 600°C.

The mechanism of the changes of electrical and optical properties was proposed.



The obtained ATO thin film annealed at 600°C showed the lowest resistivity of $1.5 \times 10^{-3} \Omega \cdot \text{cm}$, the average optical transmittance was ~85% in the visible wavelength range from 380 to 780 nm.

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