

Article

Chemical Reaction and Ion Bombardment Effects of Plasma Radicals on Optoelectrical Properties of SnO₂ Thin Films via Atomic Layer Deposition

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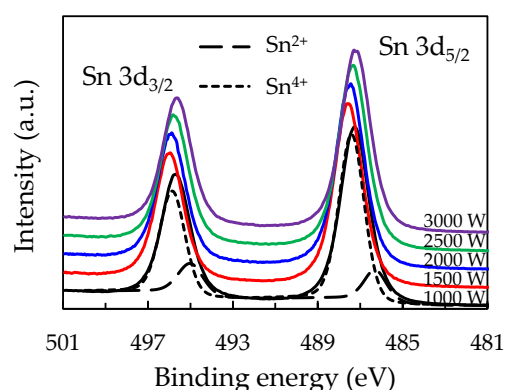


Figure S1. The Sn 3d core level spectra via X-ray photoelectron spectroscopy (XPS) for SnO₂ thin films deposited at different plasma power from 1000 to 3000 W with the deconvolution of sample at 1000 W.

The XPS Sn 3d peaks for the films prepared at different plasma powers are added as shown in Figure S1. The Sn 3d curves are deconvoluted into two components of Sn⁴⁺ at the binding energy of 487.5 eV and Sn²⁺ at 486.4 eV. The major Sn⁴⁺ and minor Sn²⁺ states of films are assigned to the bonding of the O_L and O_v, respectively. The area ratio of Sn⁴⁺/(Sn²⁺+Sn⁴⁺) has been added to the Figure 5b.