







nature with most prominent (002) reflection. The calculated crystalline size was found to be 67.53 nm. From STDA analysis, the first step reaction removes the small amount of hydroxyl ion present in the resultant powder by heating to a temperature of 200°C. Second step reaction confirms the crystalline phase of tungsten oxide at a temperature of 400°C. The optical study shows that the reflectance (61%) of tungsten oxide is high in the visible region. The observed indirect band gap value of annealed WO<sub>3</sub> is 2.98 eV, which can be used as potential application in solar cell.

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