

Preparation of photocatalytic TiO₂ thin films by atomic layer deposition using TDMAT and H₂O₂

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Titanium dioxide thin films were grown by atomic layer deposition using tetrakis-dimethylamino titanium (TDMAT) and H₂O₂ as precursor and reactant, respectively. The films were grown at deposition temperature 100–250°C. Influence of experimental parameters; precursor, reactant and purge time, on thin films properties and photocatalism were studied. Various analysis methods were used to investigate the film properties, ellipsometer, four-point probe, X-ray diffractometer and Auger electron spectrometer.