

Structure and chemical properties of TiO₂ surfaces on C fiber

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Growth of TiO₂ films prepared by atomic layer deposition (ALD) was studied on C fiber. Moreover, adsorption and photocatalytic decomposition of methylene blue on TiO₂ thin films were studied. Preferential growth of TiO₂ on steps of C surfaces could be identified by scanning electron microscopy (SEM). X-ray Photoelectron Spectroscopy (XPS) showed thickness-dependent positive core level shift of Ti, which can be interpreted in terms of enhanced final state charging for thicker films. Adsorption and photocatalytic behaviors of TiO₂ thin films will be discussed in this poster.