

TiO₂ and WO₃ semiconductor particles in contact: photochemical reduction of WO₃ to the non-stoichiometric blue form

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Abstract. Hydrated tungsten oxide WO₃.xH₂O in contact with TiO₂ grains suspended in water is found to reduce to WO_{2.98}.xH₂O upon irradiation with uv light. Measurement of the band position of WO₃.xH₂O suggests that electron transfer from TiO₂ to WO₃.xH₂O is responsible for the reduction.