

Environmental Science: Atmospheres

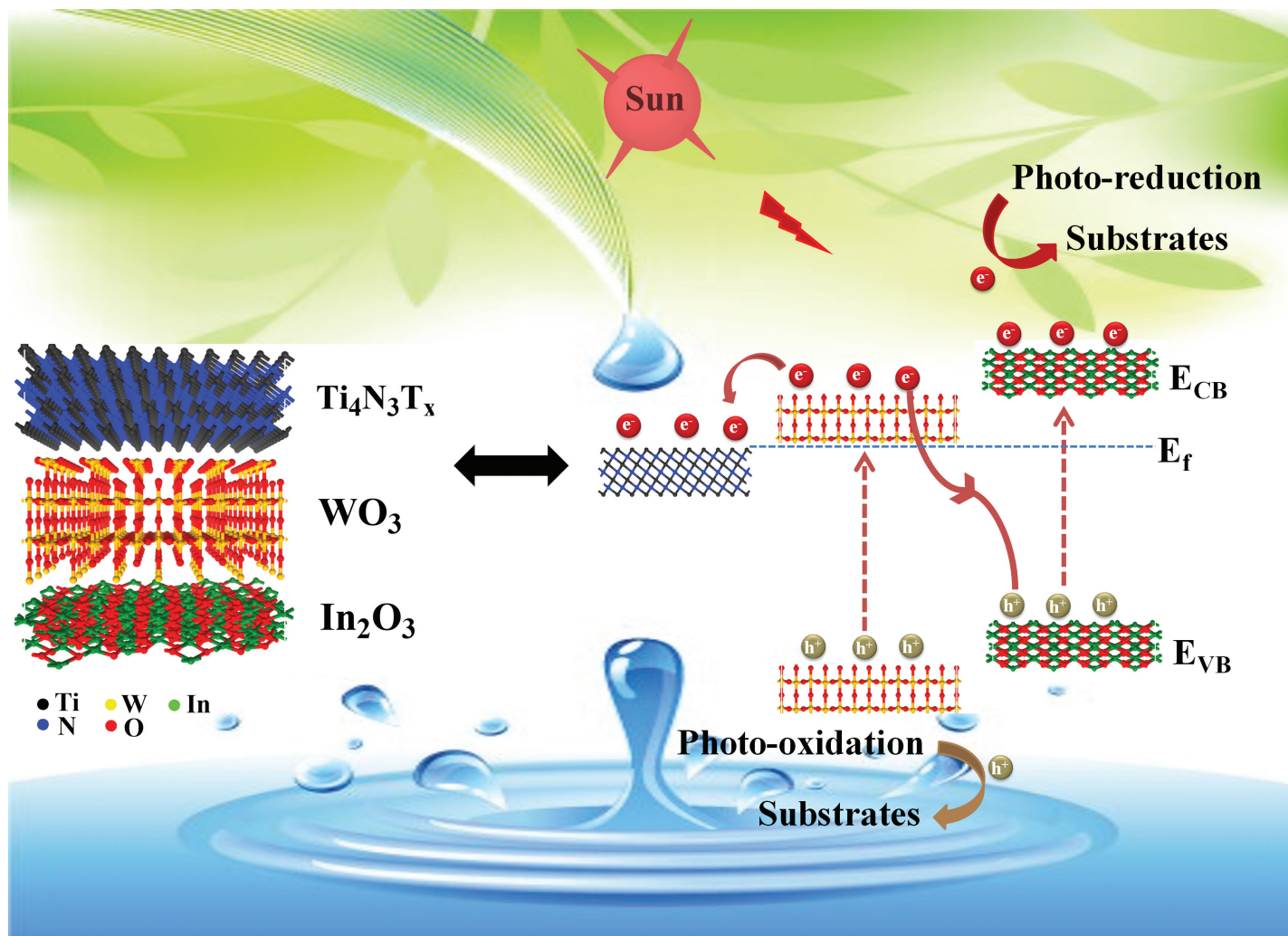
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Fundamental questions
Elemental answers





Showcasing research from Professor Langelihle Dlamini's laboratory, Department of Chemical Sciences, University of Johannesburg, Johannesburg, South Africa.

Interfacial engineering of a multijunctional $\text{In}_2\text{O}_3/\text{WO}_3@ \text{Ti}_4\text{N}_3\text{T}_x$ S-scheme photocatalyst with enhanced photoelectrochemical properties

The work entails the fabrication of a ternary composite of two semiconductor materials fused with Titanium Nitride MXene resulting in a multijunctional S-Scheme material, with possible applications in environmental remediation. Therefore, the artwork considered the lattice structure of the materials and their possible charge transfer mechanisms showcasing improved photoelectrochemical properties.

Crystal structures created with BIOVIA Materials Studio 2020 and background via VectorStock.com

As featured in:



See Langelihle Nsikayezwe Dlamini *et al.*, *Dalton Trans.*, 2024, **53**, 7694.