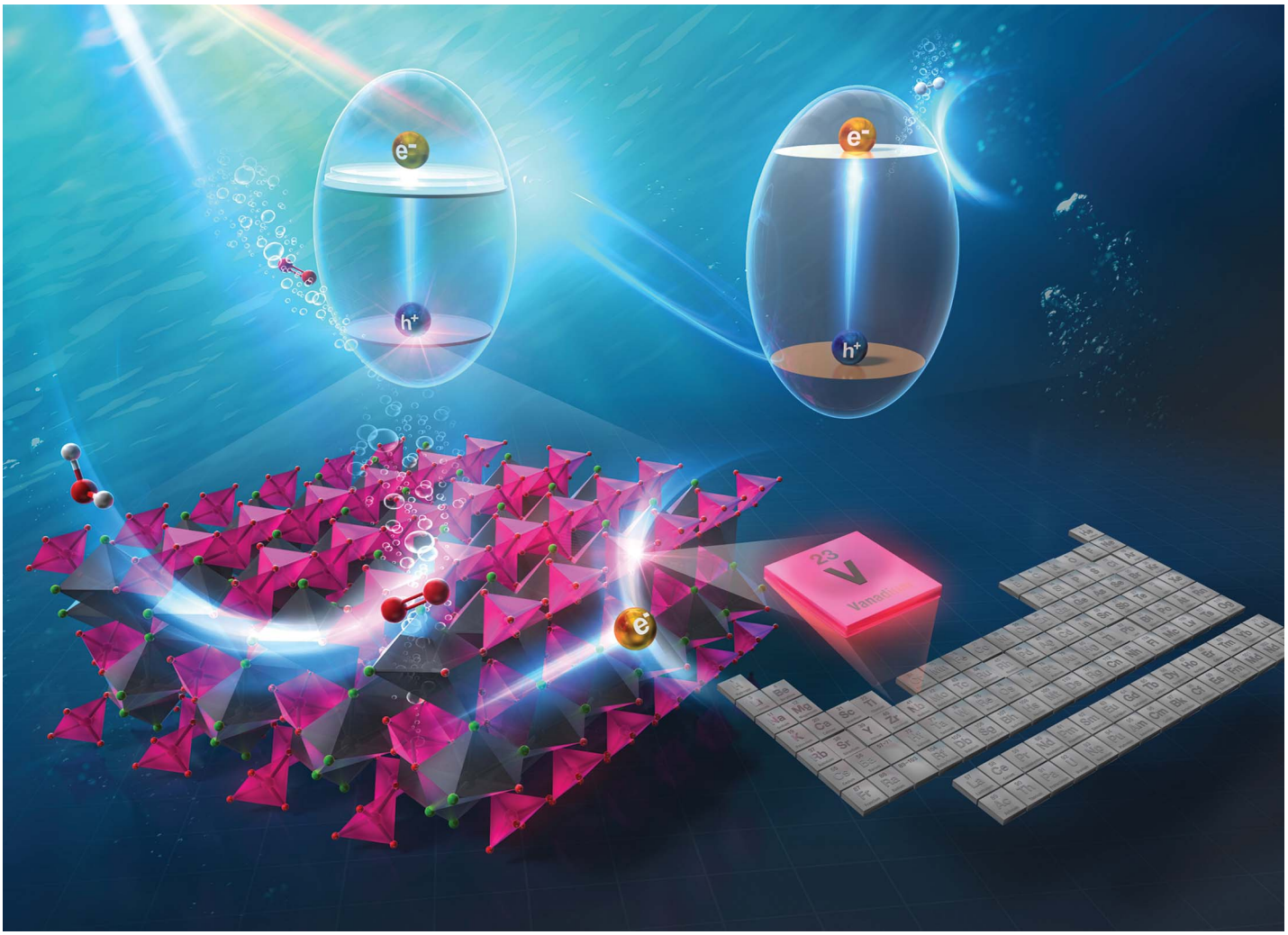

Showcasing research from Dr. Hajime Suzuki's group in Prof. Ryu Abe's laboratory, Graduate School of Engineering, Kyoto University, Japan.

Vanadium-based oxyhalide photocatalysts for visible-light-driven Z-scheme water splitting: advancing conduction band engineering

This study demonstrates the potential of V-based oxyhalides as oxygen-evolving photocatalysts in Z-scheme water-splitting systems. Owing to the positively located conduction band derived from vanadium orbitals, $PbVO_3Cl$ absorbs visible light up to 550 nm and functions as an oxygen-evolving photocatalyst under visible light irradiation.

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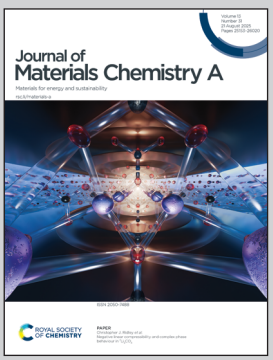

See Hajime Suzuki, Ryu Abe *et al.*, *J. Mater. Chem. A*, 2025, **13**, 25356.

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