

**All-lead-free Cs₂SnCl₆/Cu₂ZnSnS₄/CuFeO₂ cascade band-aligned multilayer
heterostructures for solar-driven hydrogen production from wastewater**

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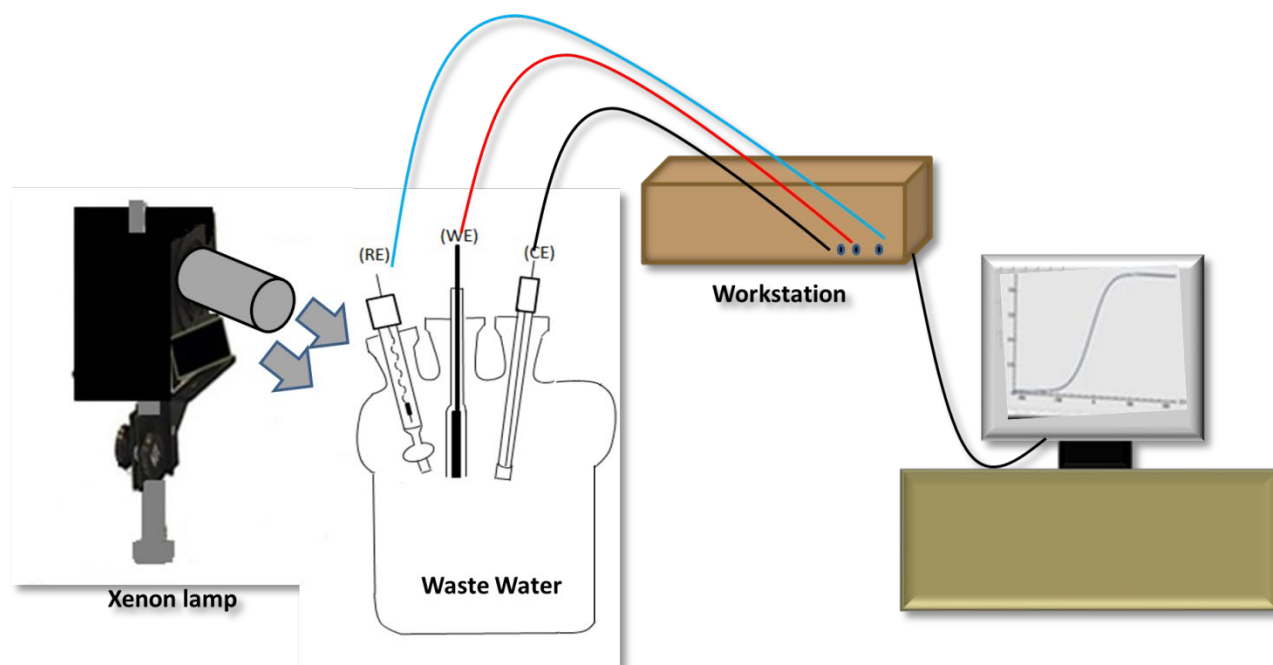


Figure S1. Schematic representation of the experimental setup used to evaluate the $\text{CuFeO}_2/\text{Cu}_2\text{ZnSnS}_4/\text{Cs}_2\text{SnCl}_6$ -based hydrogen generation system.

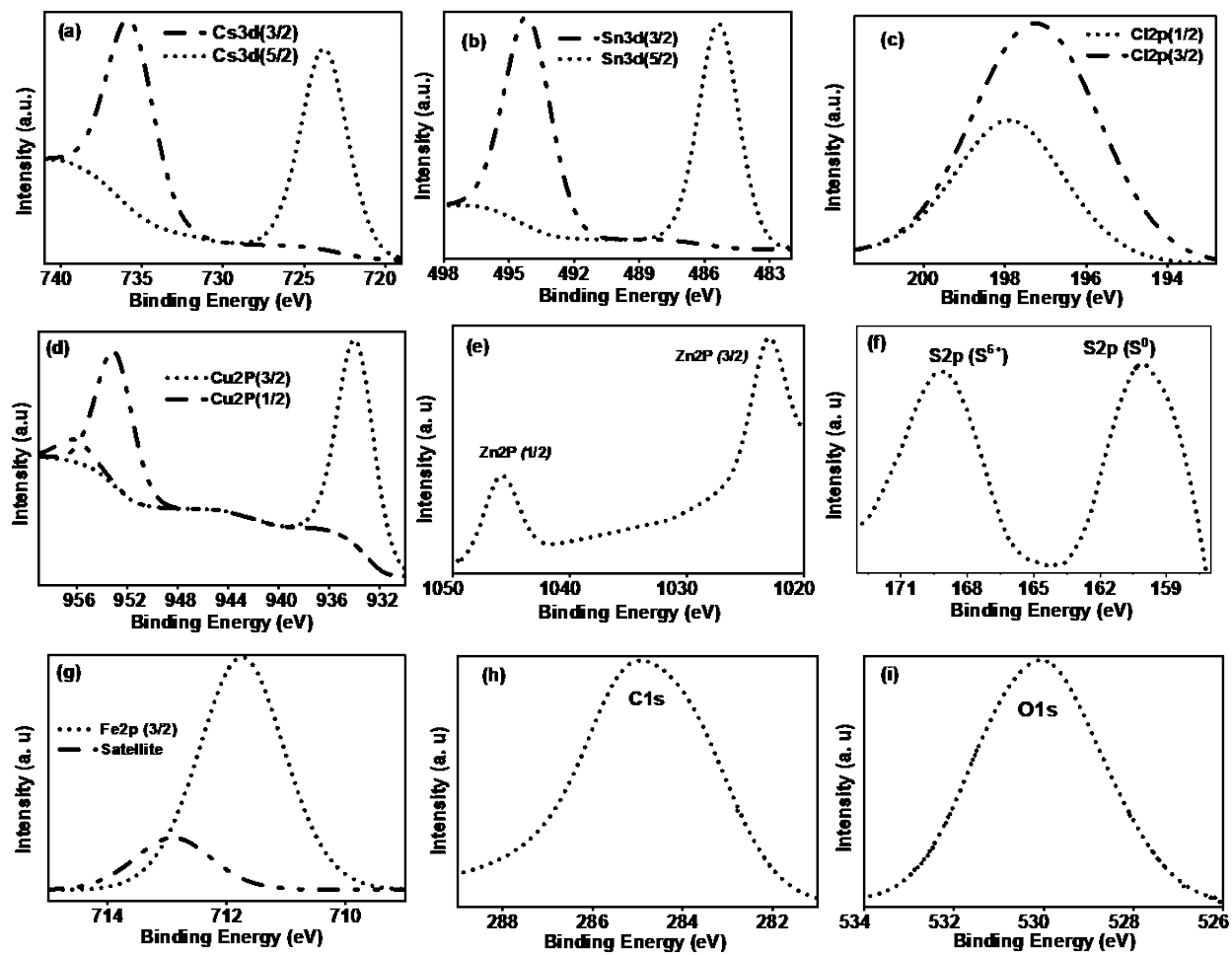


Figure S2. High-resolution XPS spectra of the $\text{CuFeO}_2/\text{Cu}_2\text{ZnSnS}_4/\text{Cs}_2\text{SnCl}_6$ multilayers.