

SUPPORTING INFORMATION

Unveiling the Catalytic Potential of Topological Nodal-Line Semimetal AuSn₄ for Hydrogen Evolution and CO₂ Reduction

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S1. O-1s core level of AuSn₄ before and after exposure to O₂, CO, H₂O and air

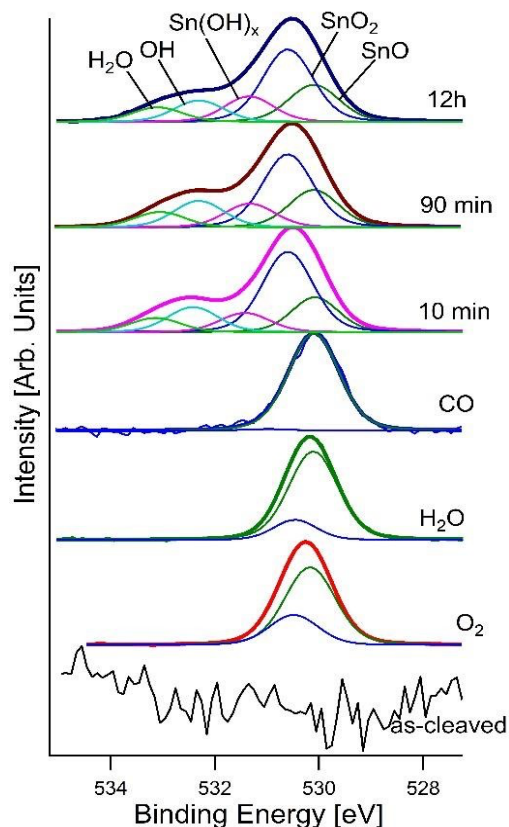


Figure S1: O-1s Core-level spectra collected from as-cleaved AuSn₄ (black curve) and from the same surface exposed to O₂ (red curve), H₂O (green curve) and CO (blue curve). The AuSn₄ surface was also exposed to air for different times, 10 minutes (pink curve), 90 minutes (brown curve) and 12 hours (dark blue curve). The photon energy is 900 eV and the spectra are normalized to the maximum.

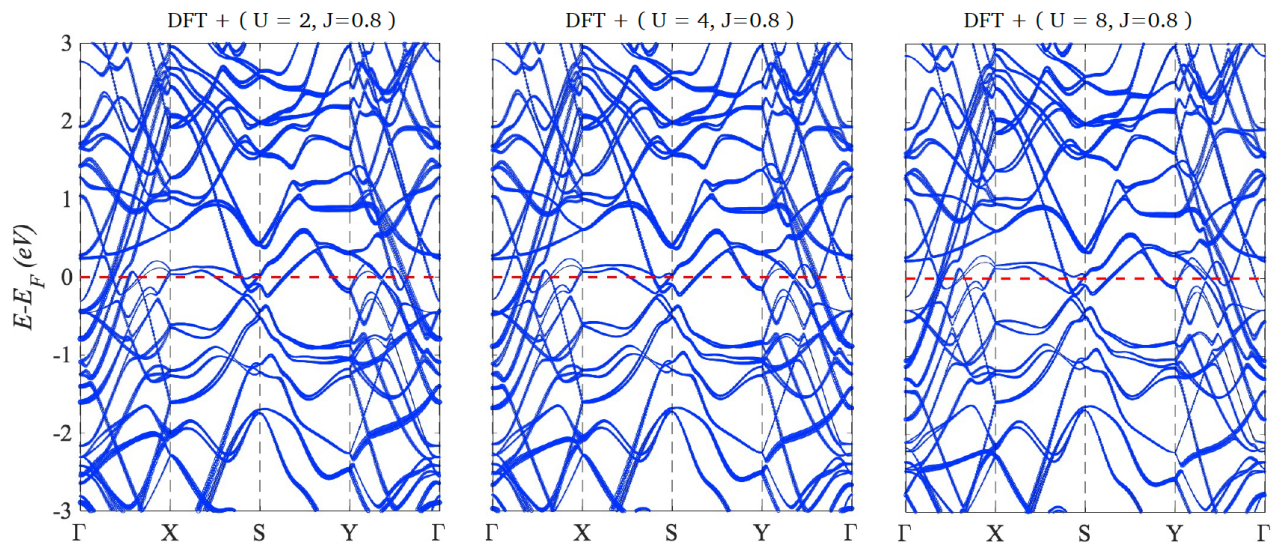


Figure S2: Band structure calculated with DFT+U, with $U=2, 4, 8$ eV