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## **Supporting information**

## Enhanced photocatalysis for water splitting in layered tin chalcogenides with high carrier mobility

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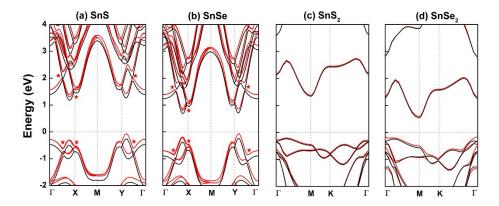


Fig.S1. DFT bandstructure of single-layered SnX and  $SnX_2$  with (red lines) and without SOC (black lines). The red stars represent band splitting on some k points.

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