

Supporting Information

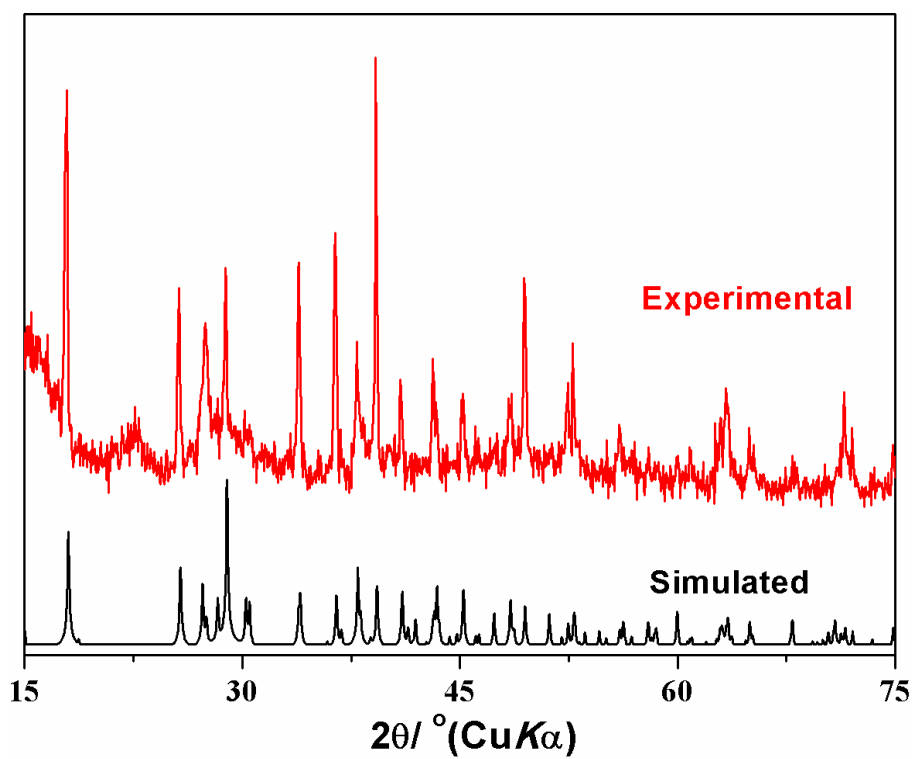


Figure S1. Calculated and observed powder X-ray diffraction patterns of Dy₄S₄Te₃.

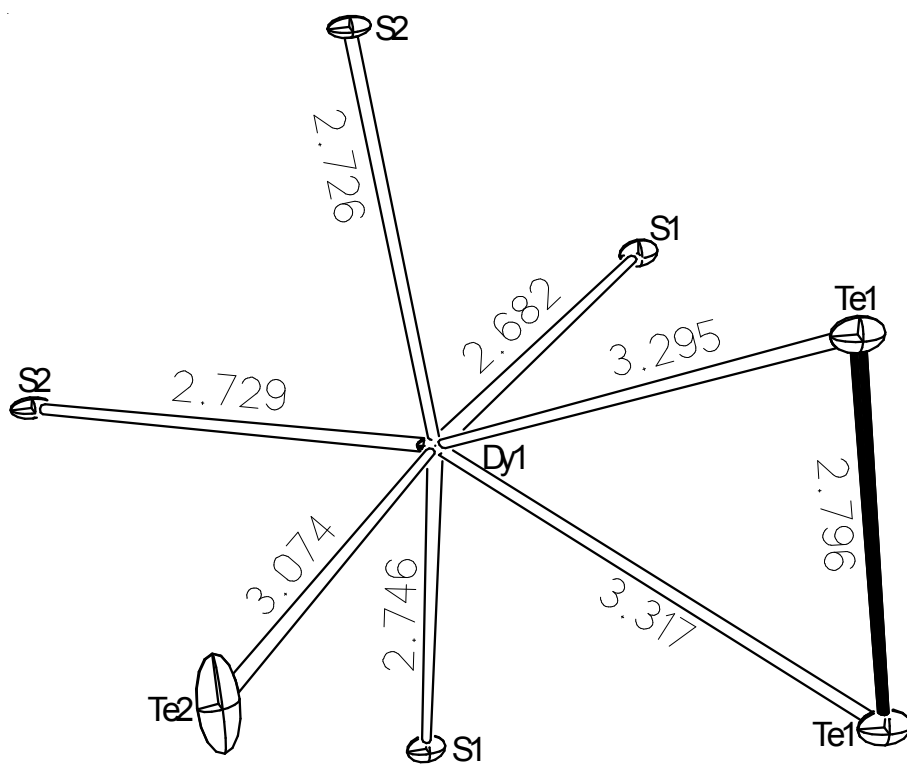


Figure S2. The coordination geometry of Dy₄S₄Te₃.

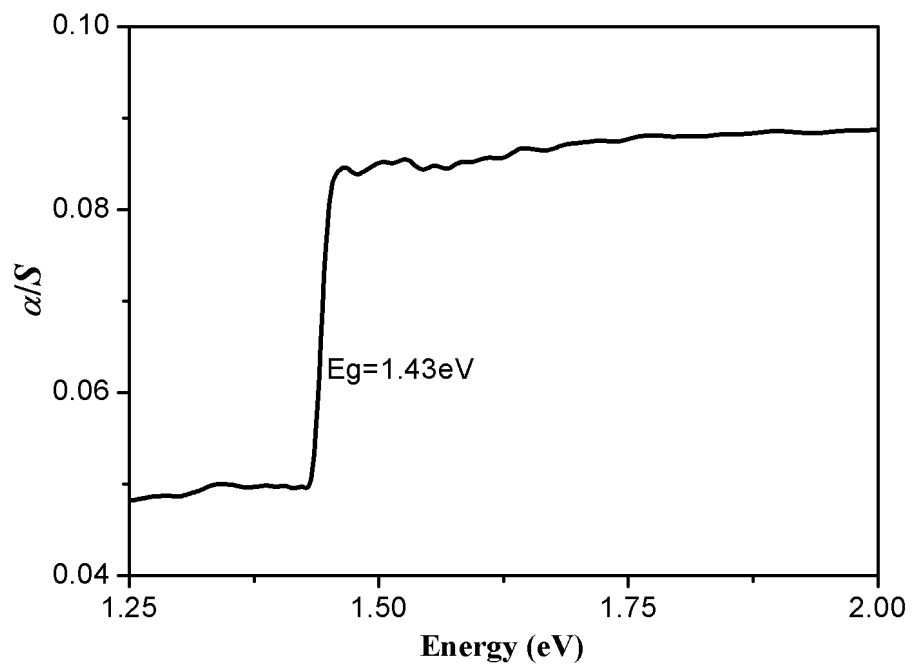


Figure S3. Diffuse reflection spectrum of $\text{Dy}_4\text{S}_4\text{Te}_3$.

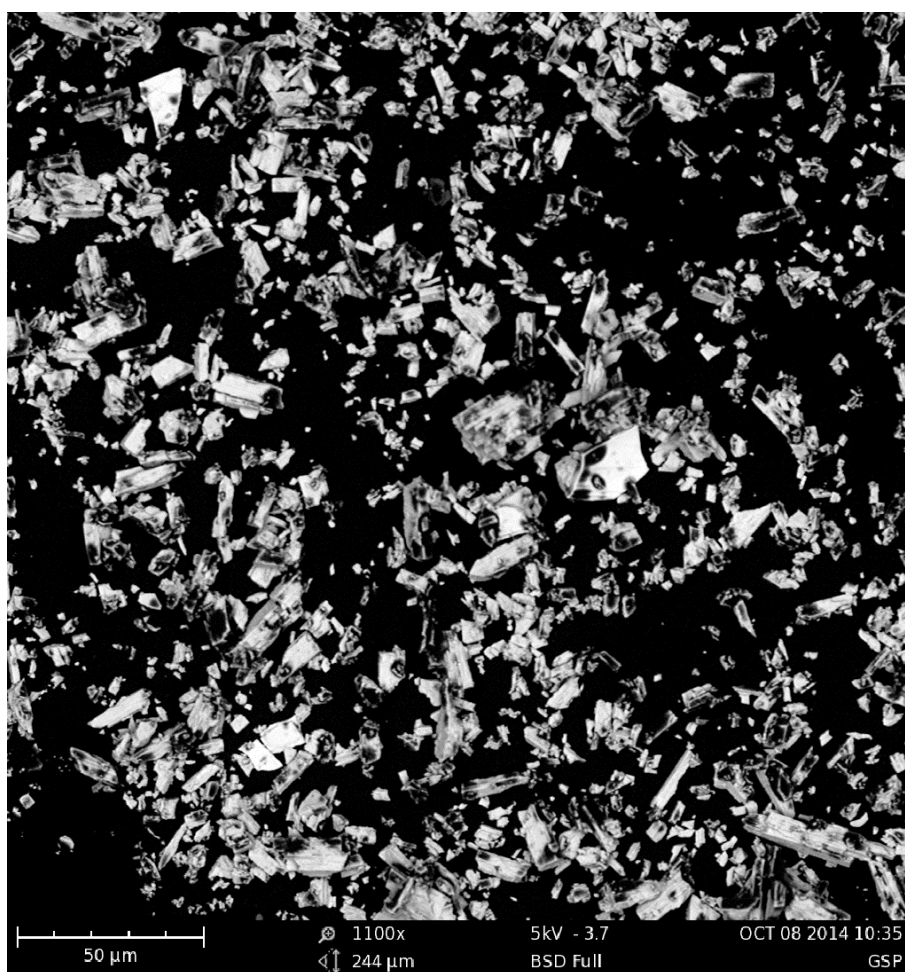


Figure S4. SEM image of the Dy₄S₄Te₃ powder used to measure its photocatalytic behavior.