Electronic Supporting Information

(ESI)

A stable Bi₂S₃ Quantum Dot-Glass nanosystem: Size tuneable photocatalytic hydrogen production under solar light

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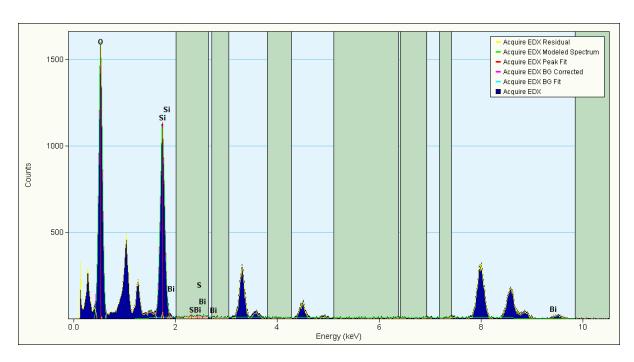


Figure S-1 TEM EDX spectra of GP-14 550 °C sample.

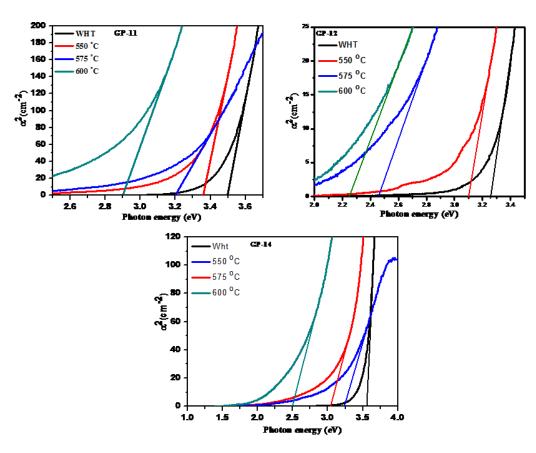


Figure S-2Tauc plot of Bi₂S₃ glass GP-11, GP-12 and GP-14.

 $\label{eq:comparative} \textbf{Table S-1}$ Comparative study of H2 generation of GP-14 550 °C and bulk Bi2S3 catalyst via phtotocatalytic H2S splitting.

Average H ₂ generation (μmol	Average H ₂ generation (µmol h ⁻
h ⁻¹ g ⁻¹) for GP-14 550 °C	¹ g ⁻¹) for Bulk Bi ₂ S ₃
6418.8	1830.6

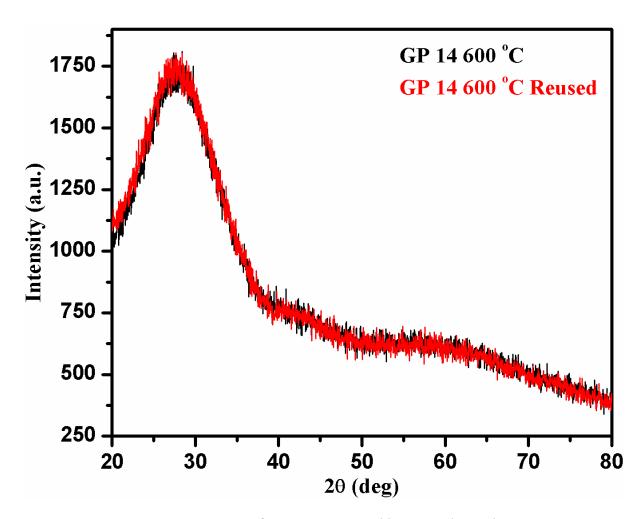


Figure S-3 XRD of GP 14 600 °C and its resused sample.

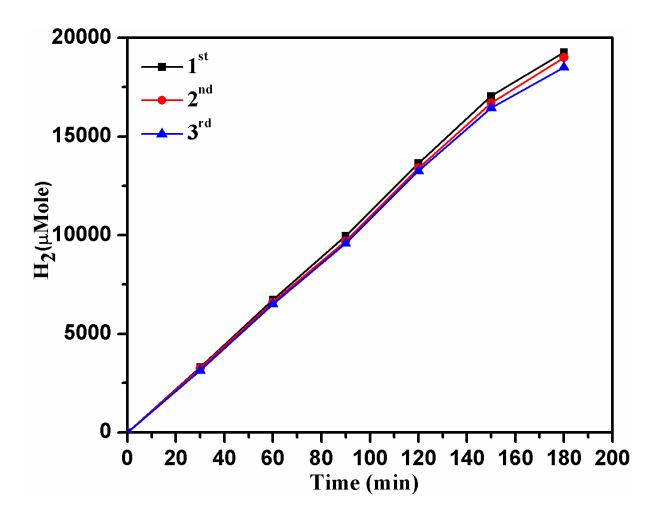


Figure S-4Photocatalytic H₂ generation study for 2nd and 3rd run.

Table S-2 Recycled study of H_2 generation of GP-14 (550 °C) catalyst via phtotocatalytic H_2S splitting.

Run no.	H ₂ generation
	(µMole)
1 st	6418.8
2 nd	6333.3
3 rd	6166.6