

## Supplementary materials

# Mechanochemically Synthesized Chalcogenide Cu<sub>3</sub>BiS<sub>3</sub> Nanocrystals in an Environmentally Friendly Manner for Solar Cells Applications

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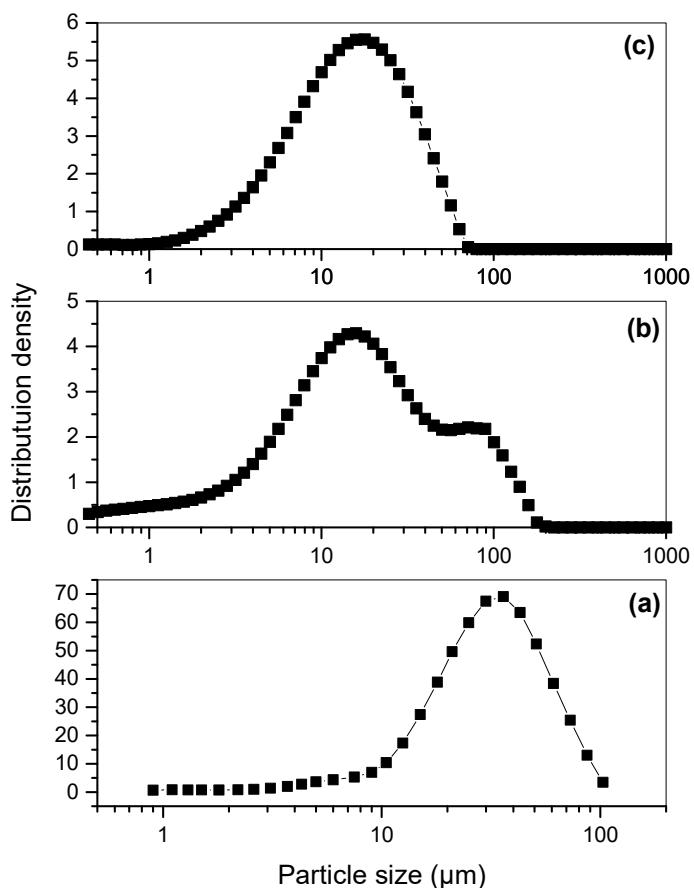
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### Particle size analysis of the used precursors

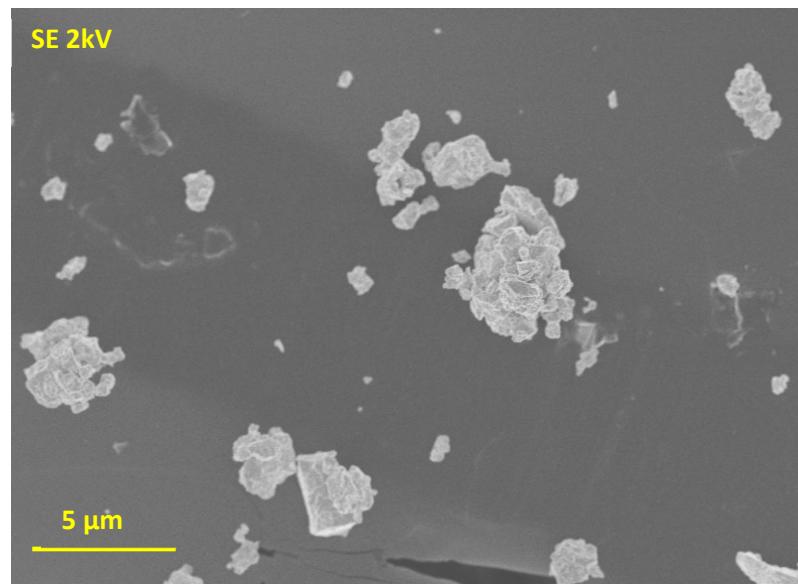
The particle size distribution of the precursors copper, bismuth and sulphur used for the mechanochemical synthesis of wittichenite Cu<sub>3</sub>BiS<sub>3</sub> nanocrystals is shown in Figure S1.



**Figure S1.** Particle size analysis of the used precursors: (a) Cu, (b) Bi, (c) S.

## Morphological characterization

The representative SEM image of mechanochemically synthesized  $\text{Cu}_3\text{BiS}_3$  after 5 min of milling showing several grains at lower magnification is displayed in Figure S2.



**Figure S2.** SEM image of mechanochemically synthesized  $\text{Cu}_3\text{BiS}_3$  after 5 min of milling at lower magnification