Supporting Information:

**Nanocrystalline Copper Indium Selenide (CuInSe₂) Particles for Solar Energy Harvesting**

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**Supporting Information S1:**

Synthesis of CuSeO₃ and In₂(SeO₃)₃

We synthesized CuSeO₃ and In₂(SeO₃)₃ by simple precipitating reaction of NaSeO₃ and corresponding metal salts in aqueous medium. The ionic exchange reactions are described as below:

\[
\text{NaOH} + \text{SeO}_2 \rightarrow \text{NaSeO}_3 + \text{H}_2\text{O}
\]

\[
\text{NaSeO}_3 + \text{Cu(NO}_3)_2 \rightarrow \text{CuSeO}_3 + \text{NaNO}_3
\]

\[
\text{NaSeO}_3 + \text{InCl}_3 \rightarrow \text{In}_2(\text{SeO}_3)_3 + \text{NaCl}
\]

**Supporting Information S2:**

Morphologies of (a) CuSeO₃ and (b) In₂(SeO₃)₃
Supporting Document S3

(a) XRD spectra and (b) FESEM image of products synthesized in DMF without co-solvent.

Supporting Document S4

FTIR spectrum of products synthesized in DMF without co-solvent.
Supporting Document S5

Morphologies of CuInSe₂ for 48hr reactions at different precursor concentrations (a): 0.02M; (b):0.04M and (c): 0.08M in H₂O-DMF.

Supporting Information S6:

Typical EDX spectra of CuInSe₂
Supporting Information S7:

Photo current against potential (J-V) curves for CuInSe₂ nanocrystals synthesized with different precursor concentrations (0.02M, 0.04M and 0.08M) in Me-DMF for 24 hr.