

Supplementary information

Raman spectroscopy and thermoelectric characterization of composite thin films of $\text{Cu}_2\text{ZnSnS}_4$ nanocrystals embedded in a conductive polymer PEDOT:PSS

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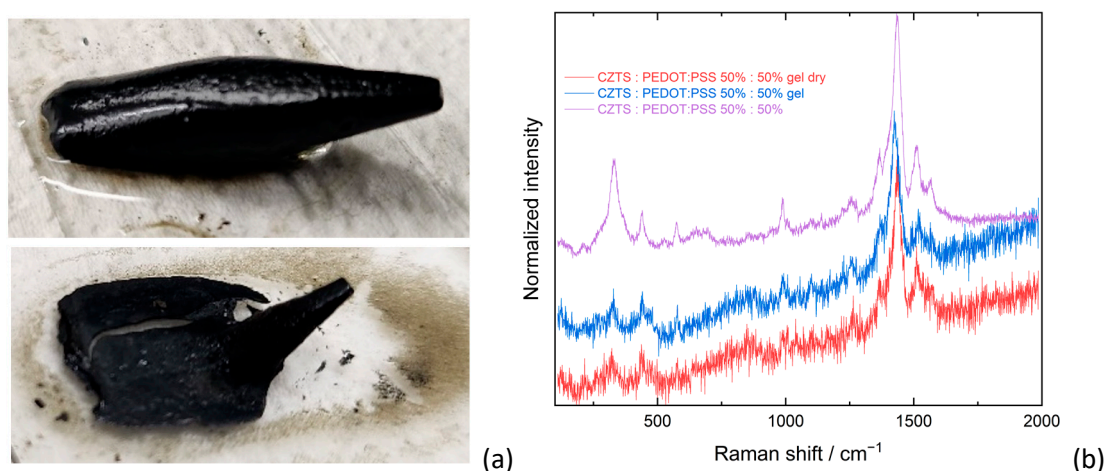


Figure S1. (a) Fresh gel (upper photo) and after drying under the hood for 12 hours (bottom). (b) Raman spectra of fresh mixture, fresh gel, and gel after drying.

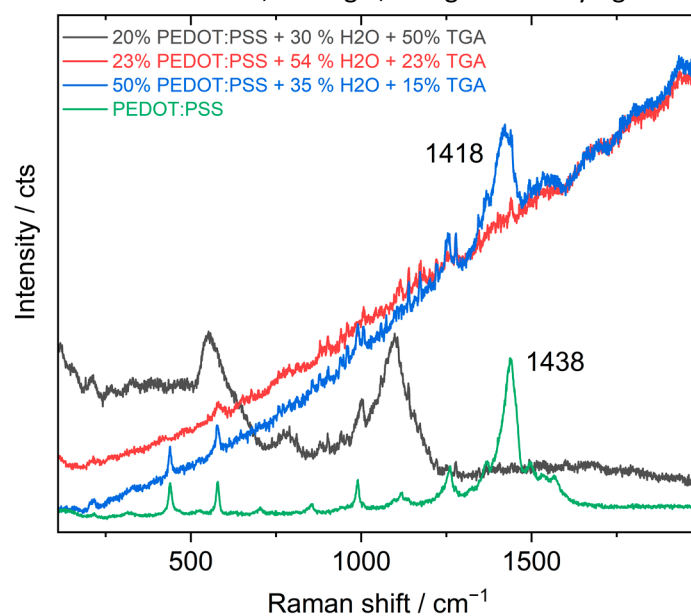


Figure S2. Control experiment with effect of pure TGA solution on the Raman spectrum of PEDOT:PSS.



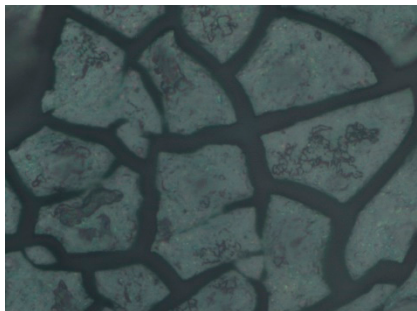
(a)



(b)



(c)



(d)

Figure S3. Optical image of PEDOT:PSS film (a) before and (b) after $12\text{J}/\text{cm}^2$ FLA; and CZTS NCs film (c) before and (d) after $12\text{J}/\text{cm}^2$ FLA