

Supporting Information

Enhanced Thermoelectric Performance of PEDOT:PSS Flexible Bulky Papers by Treatment with Secondary Dopants

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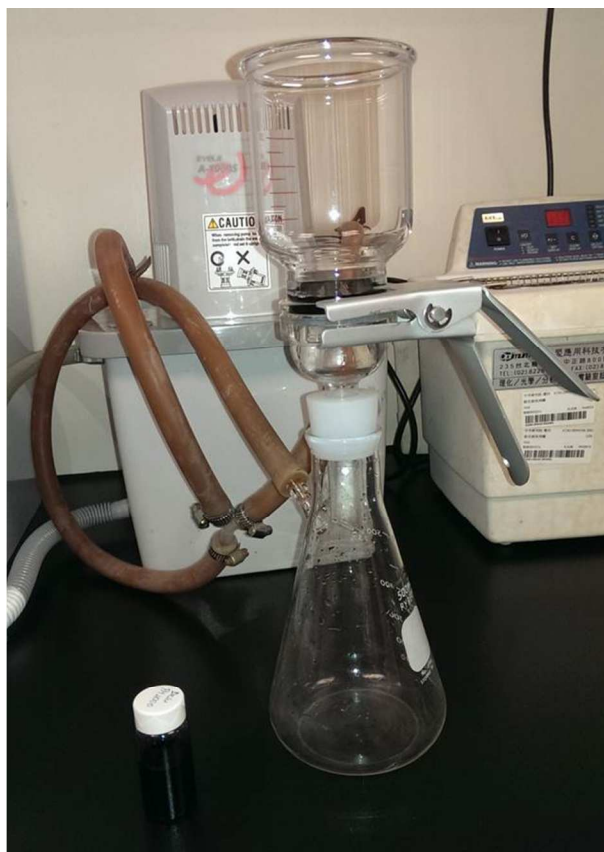


Figure S1 Setup for the vacuum assisted filtration to prepare PEDOT:PSS bulky papers.

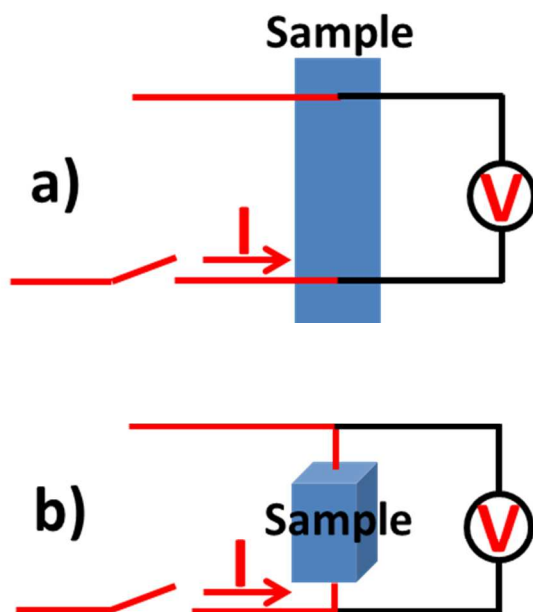


Figure S2 Schematic diagram of ZT measurement system by Harman method: a) in-plane and b) vertical.

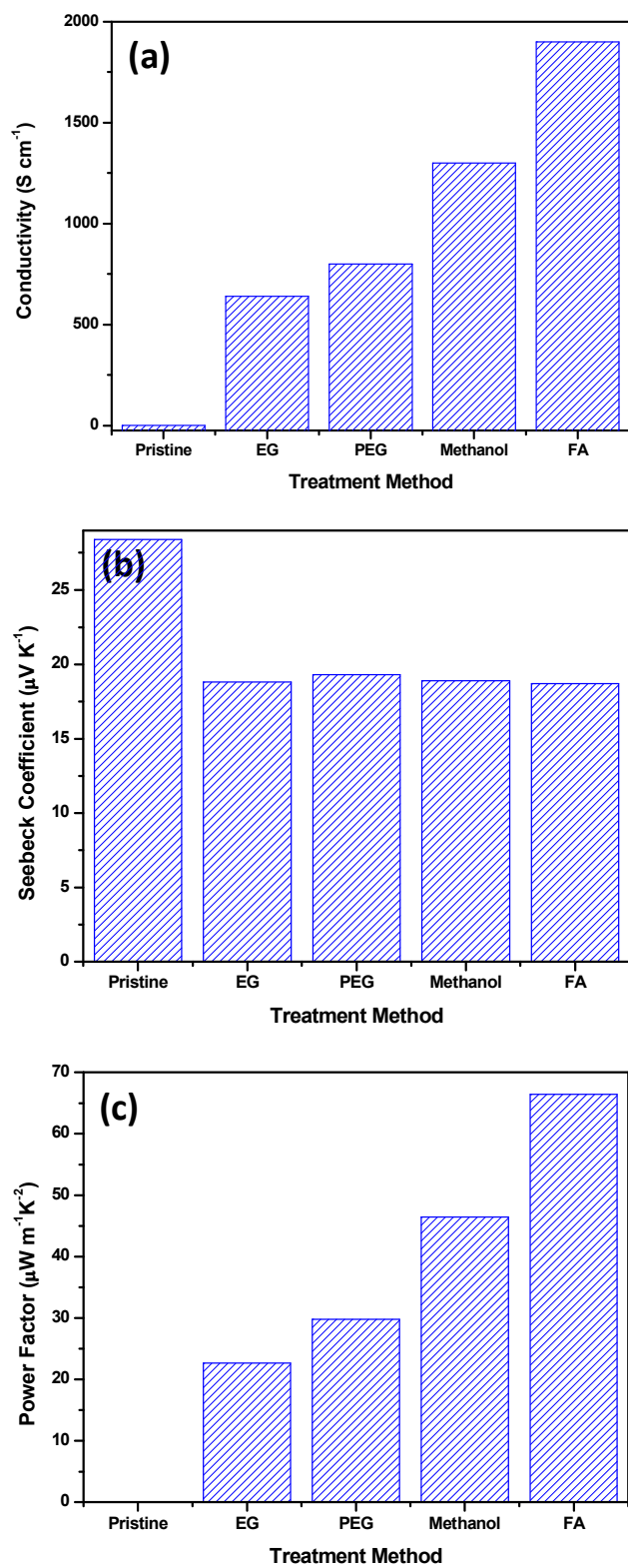


Figure S3 Thermoelectric properties of PEDOT:PSS thin films with different treatment methods: (a) electrical conductivity, (b) Seebeck coefficient and (c) power factor.

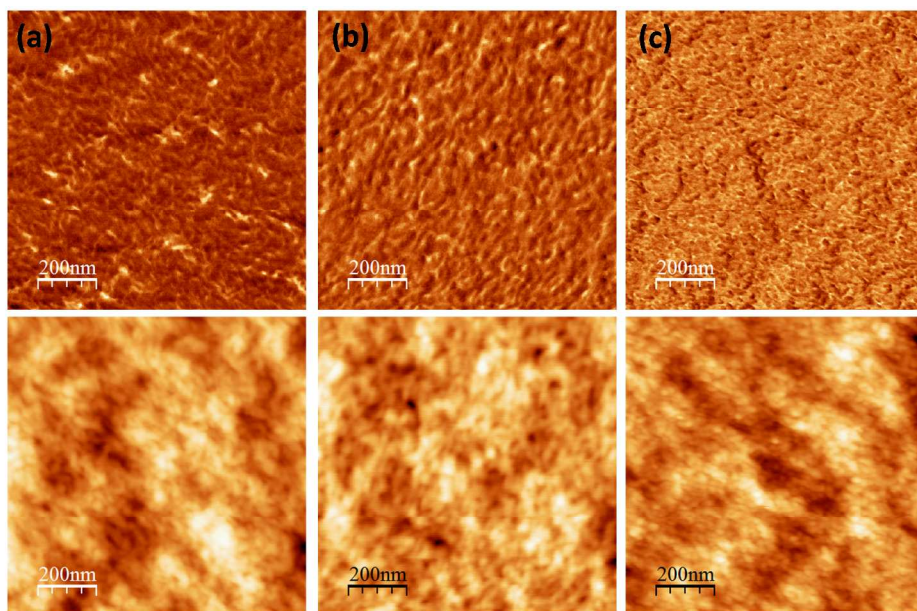


Figure S4 AFM images of PEDOT:PSS bulky papers: (a) pristine, treated with (b) EG and (c) formic acid. The upper images are phase images and the lower topographic. All images are $1\mu\text{m} \times 1\mu\text{m}$.

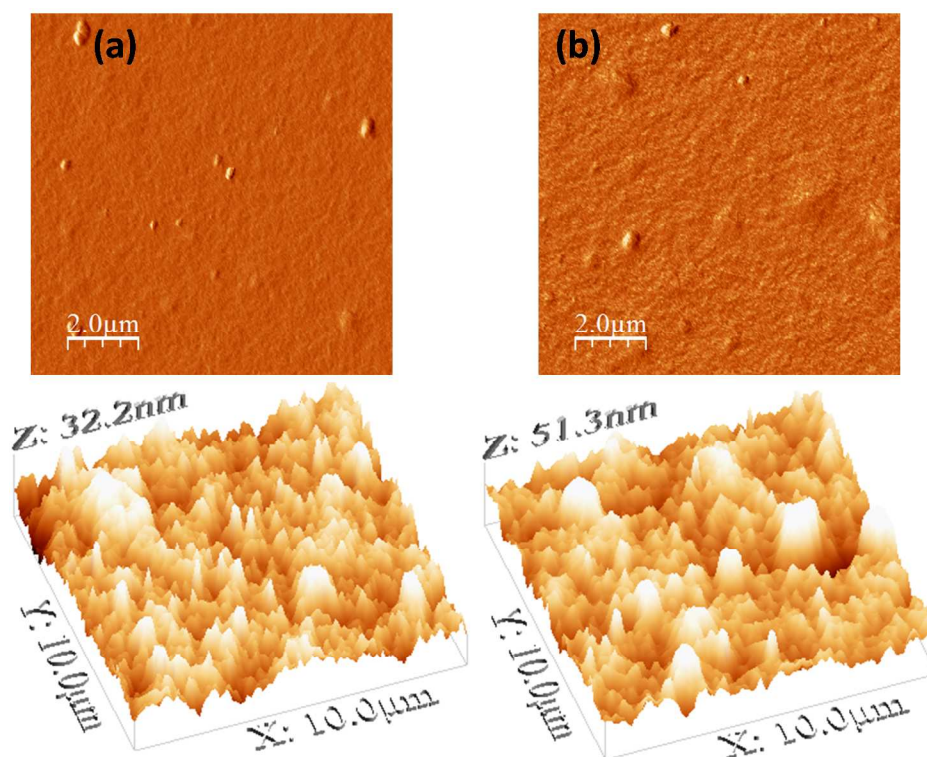


Figure S5 AFM images of PEDOT:PSS bulky papers: (a) pristine and (b) treated with EG. The upper images are phase images and the lower topographic. All images are $10\mu\text{m} \times 10\mu\text{m}$. The rms roughness is 6.4 nm for pristine and 9.98 nm for EG treated papers.

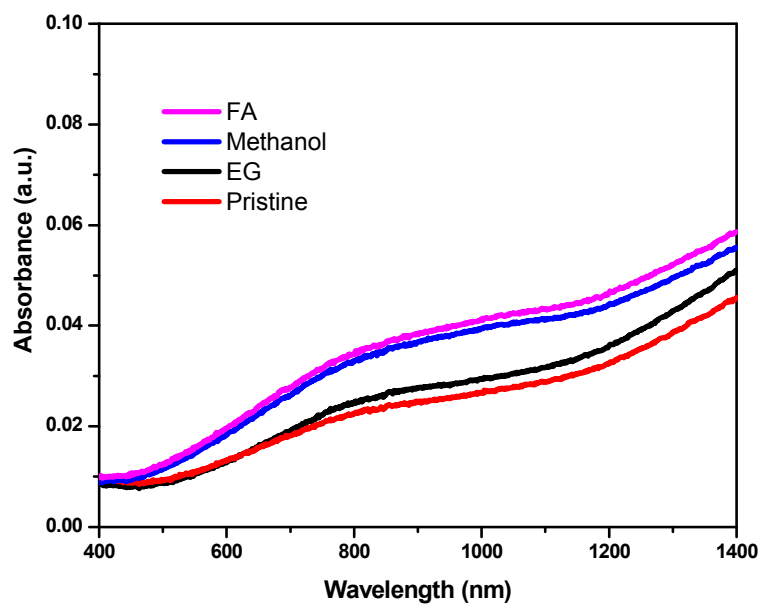


Figure S6 Absorption spectra of PEDOT:PSS thin films for pristine and treated with EG, methanol and FA.

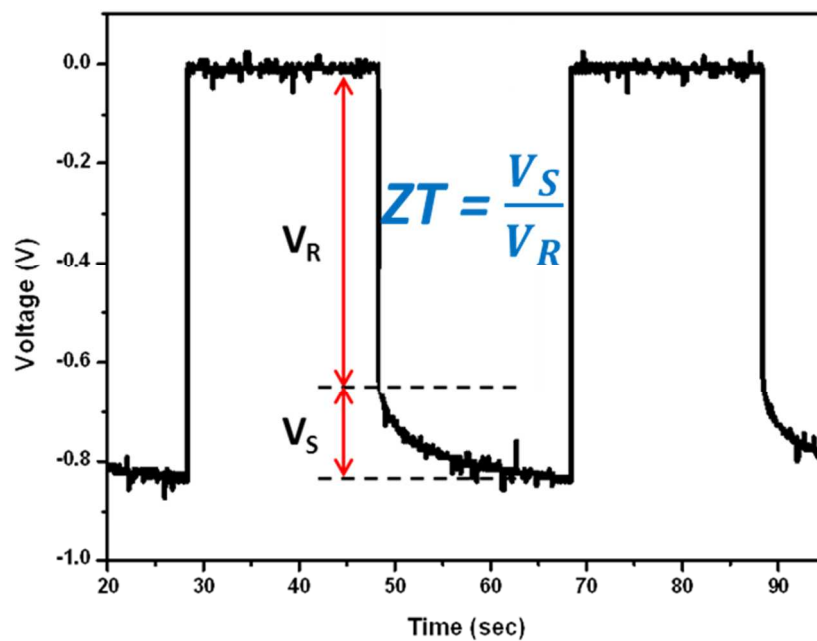


Figure S7 Graph of V vs t by Harman method for the vertical ZT measurement for the PEDOT:PSS bulky papers.

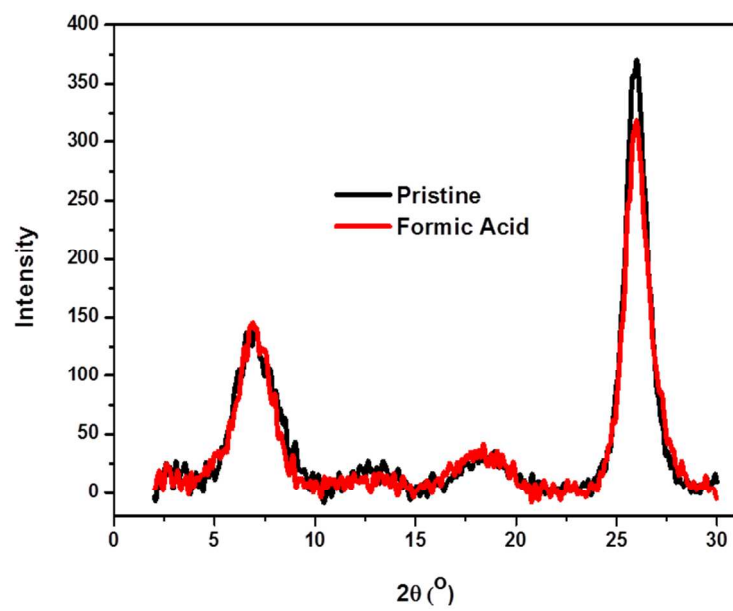


Figure S8 XRD patterns of PEDOT:PSS bulky papers: pristine and after treatment with formic acid.