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Supporting Information

High Performance Piezoelectric Energy Harvester and Self-powered Mechanosensing Using Lead Free Potassium–Sodium Niobate Flexible Piezoelectric Composites

Mengjun Wu,^a Ting Zheng,^b Haiwu Zheng,^{*a} Jifang Li,^c Weichao Wang,^a Mingsai
Zhu,^a Fengzhu Li,^a Gentian Yue,^{*a} Yuzong Gu^a and Jiagang Wu^{*b}

*a Henan Key Laboratory of Photovoltaic Materials, School of Physics and Electronics, Henan
University, Kaifeng 475004, China*

b Department of Materials Science, Sichuan University, Chengdu 610064, China

*c School of Electric Power, North China University of Water Resources and Electric Power,
Zhengzhou 450045, China*

* Corresponding author. Tel/fax: +86-371-23881602.

E-mail address: zhenghaiw@ustc.edu; yuegentian@126.com; msewujg@scu.edu.cn

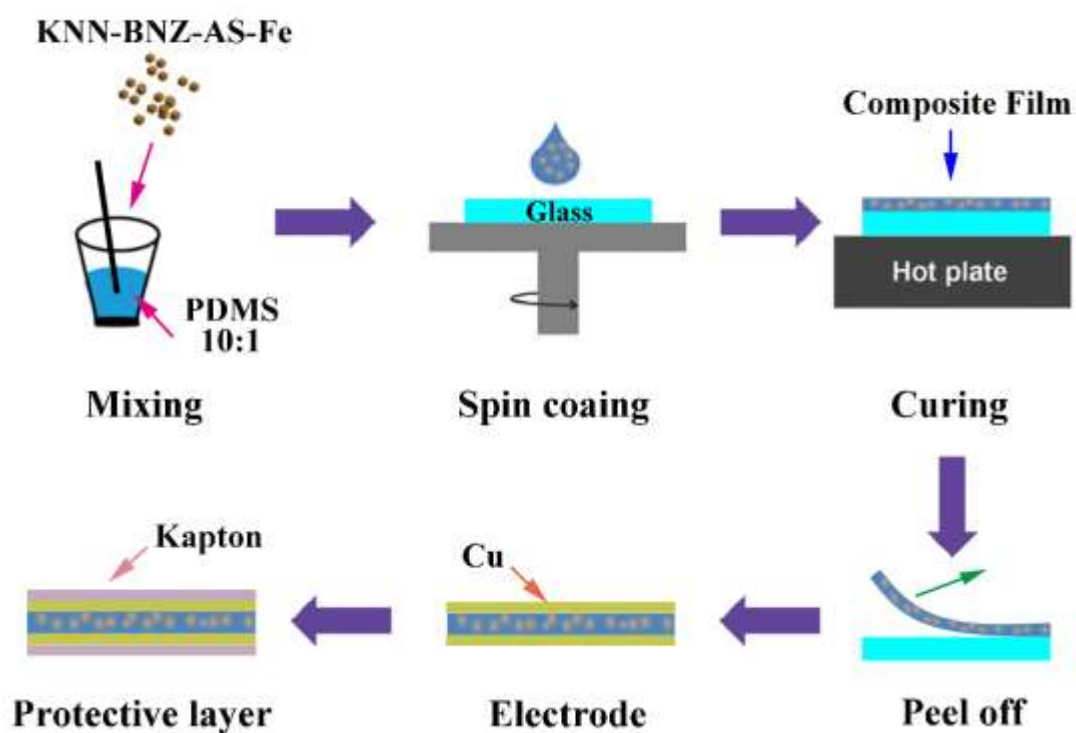


Figure S1. Schematic of the detailed fabrication procedure of the PENG device.

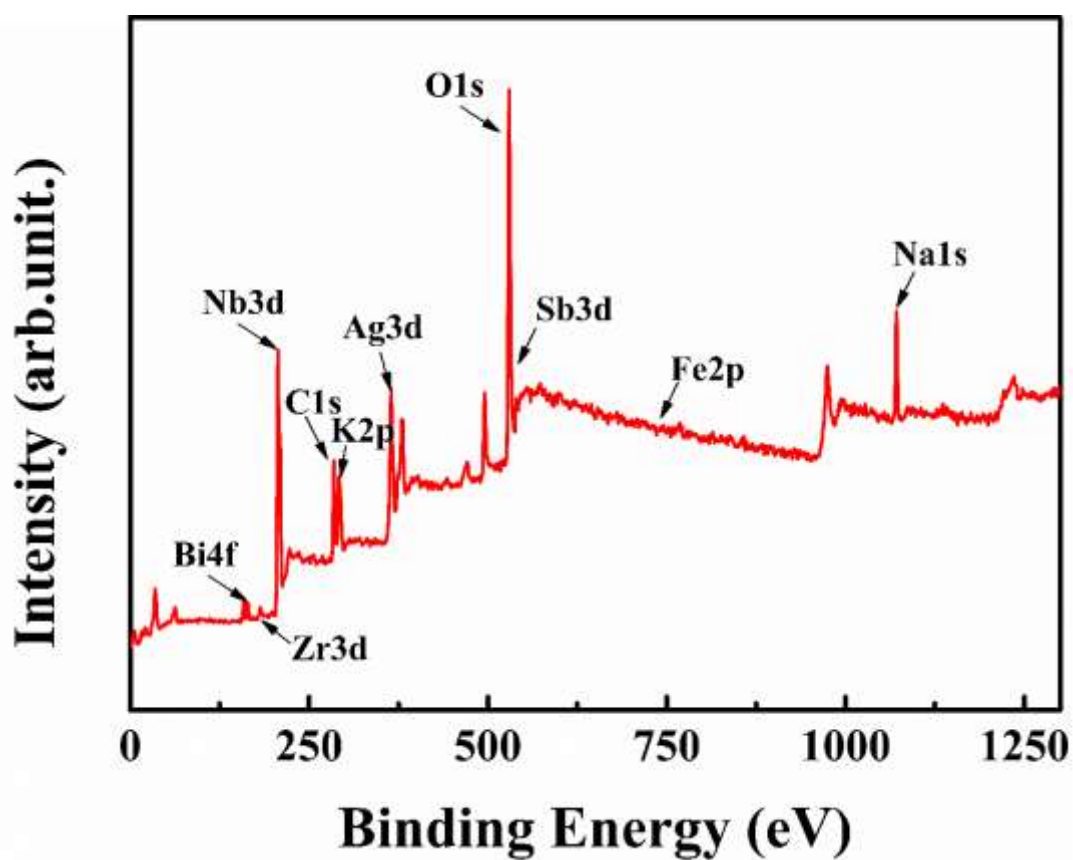


Figure S2. XPS spectrum of the KNN-BNZ-AS-Fe particles.

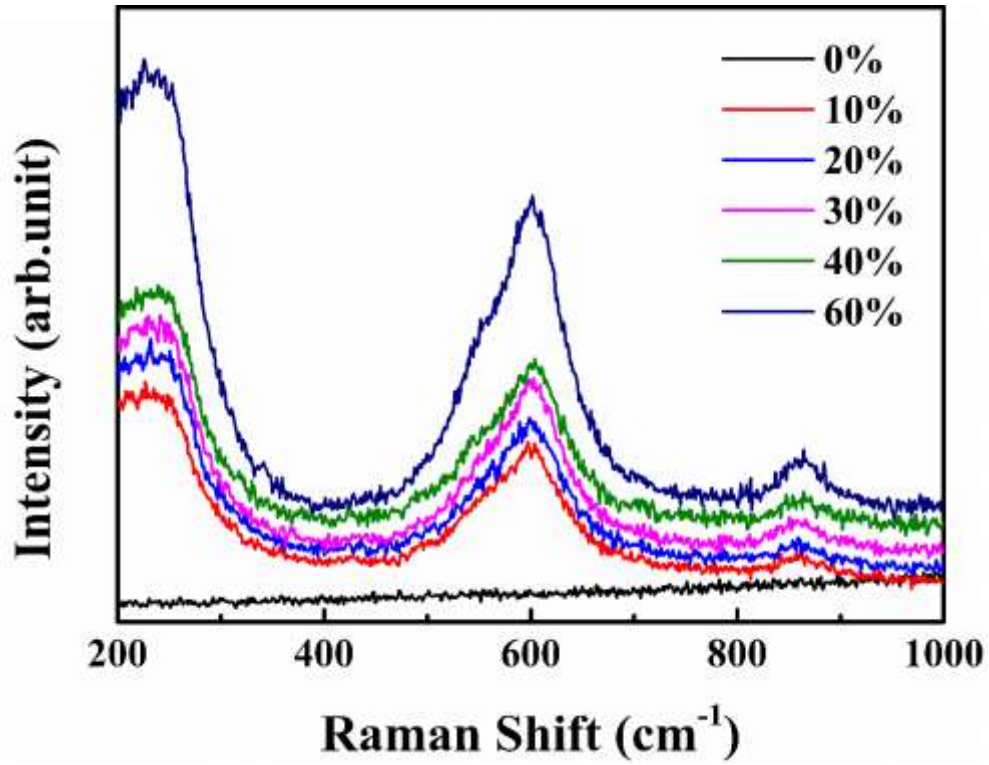


Figure S3. Raman spectra of KNN-BNZ-AS-Fe based composite films.

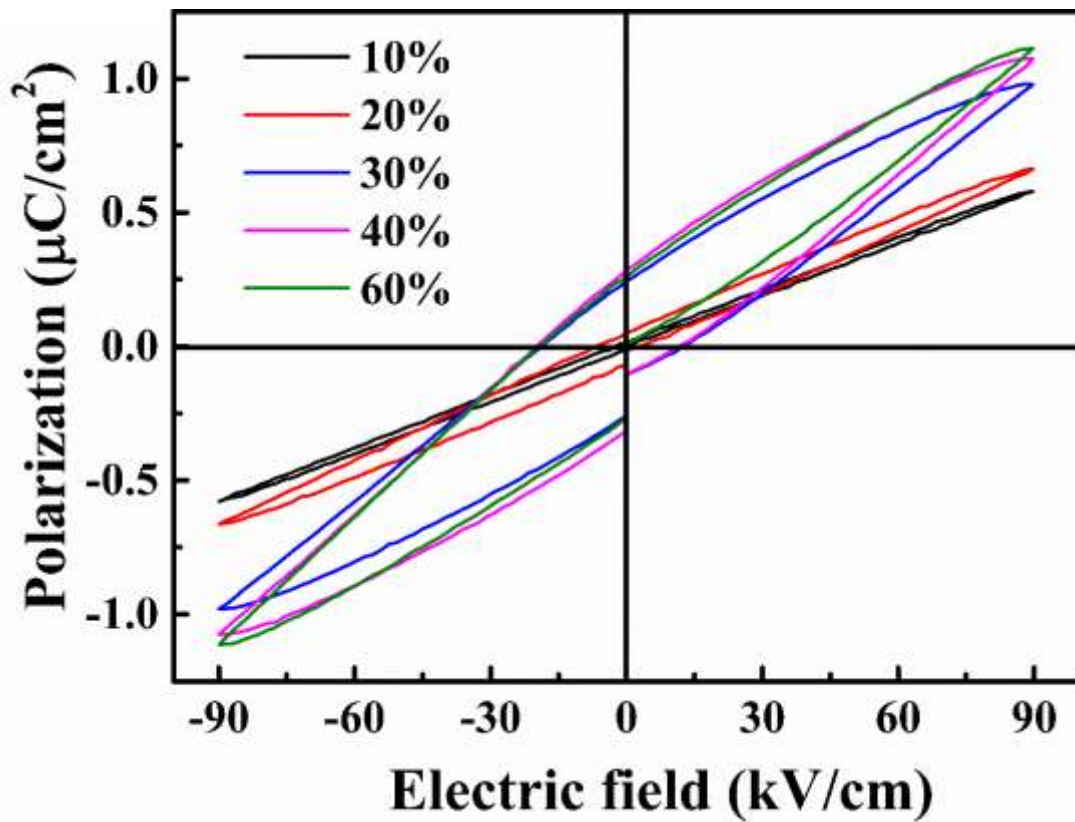


Figure S4. Ferroelectric hysteresis loops of composite films with various KNN-BNZ-AS-Fe concentrations.

Supplementary movie. 1. Movie showing the 10 commercial green LEDs lit up by the electrical energy generated from the PENG.

Supplementary movie. 2. Movie showing the behavior and process of the counter integrated with the PENG device with and without the inorganic particles under the pressure by the finger touch.

Supplementary movie. 3. Movie showing the working demonstration of a self-powered smart collision alarm system.