

Electronic supplementary information

Highly durable all-fiber nanogenerator for mechanical energy harvesting

Wei Zeng,^a Xiao-Ming Tao,^{*a} Song Chen,^a Song Ming Shang,^a Lai-Wa CHAN WONG^b and
Siu Hong Choy^b

^aInstitute of Textiles and Clothing, The Hong Kong Polytechnic University, Hong Kong

^bDepartment of Applied Physics, The Hong Kong Polytechnic University, Hong Kong

Corresponding author: Fax: + 852 -27731432, Tel.: + 852 - 27666470, E-mail:

tctaoxm@polyu.edu.hk

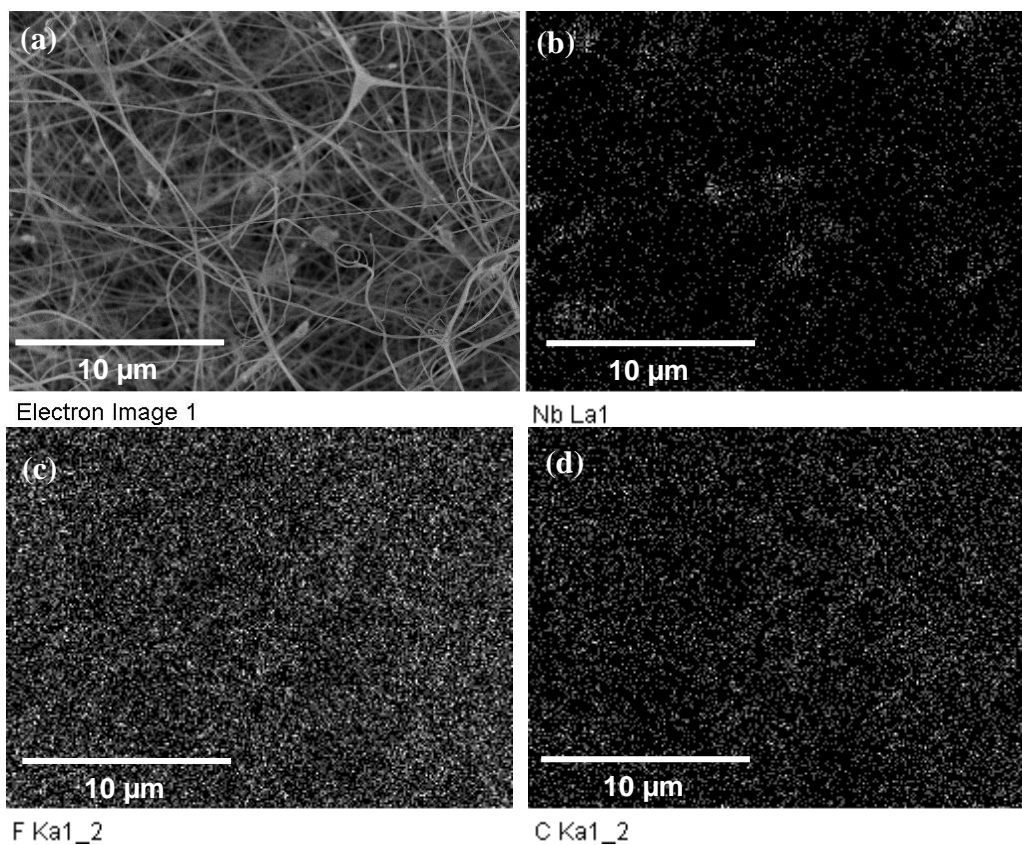


Fig. S1. (a) SEM image of $\text{NaNbO}_3/\text{PVDF}$ nanofiber. SEM-EDS element mapping images of (b) Nb, (c) F, and (d) C collected from (a).

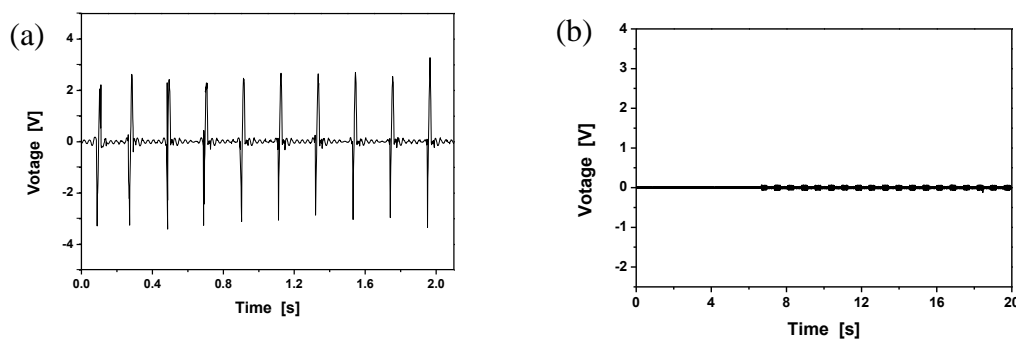


Fig. S2. Power generation of nanogenerators under a series of loading cycles. (a) Open circuit voltage outputs of $\text{NaNbO}_3/\text{PVDF}$ nanofiber based nanogenerators with reverse electrode connection. (b) Open circuit voltage output of the un-poled PVDF film based generator.

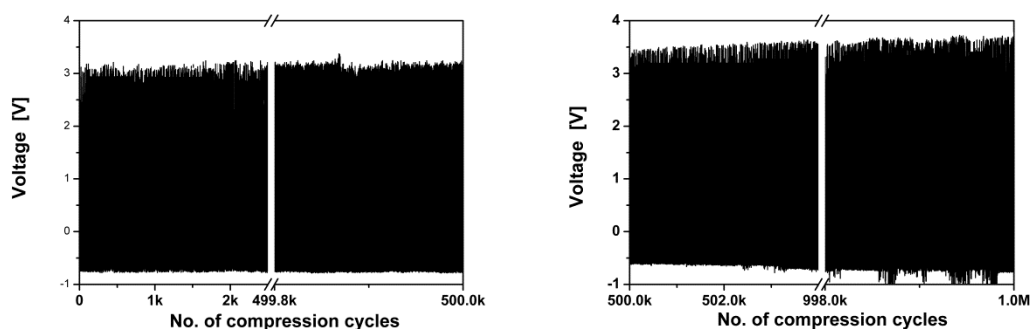


Fig. S3. Long-term stability of the Power generation of nanogenerators under a series of loading cycles (pressure: 0.2 MPa, frequency: 1Hz).

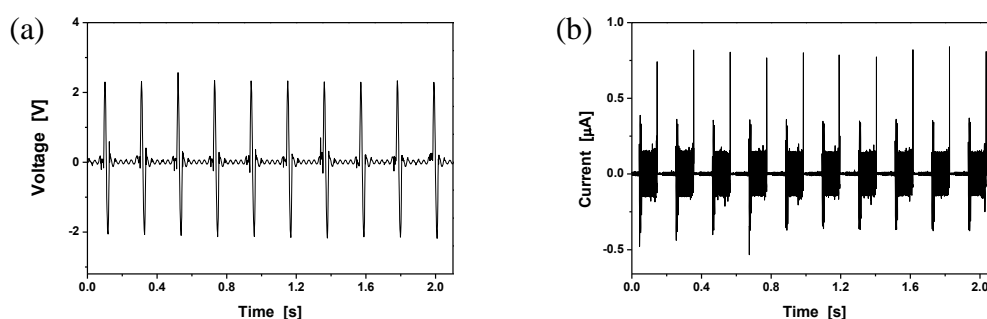


Fig.S4. Power generation of nanogenerators under a series of loading cycles (pressure: 0.2 MPa, frequency: 5 Hz). (a) Open circuit voltage output of the PVDF nanofiber based nanogenerator. (b) Current output of the PVDF nanofiber based nanogenerator.

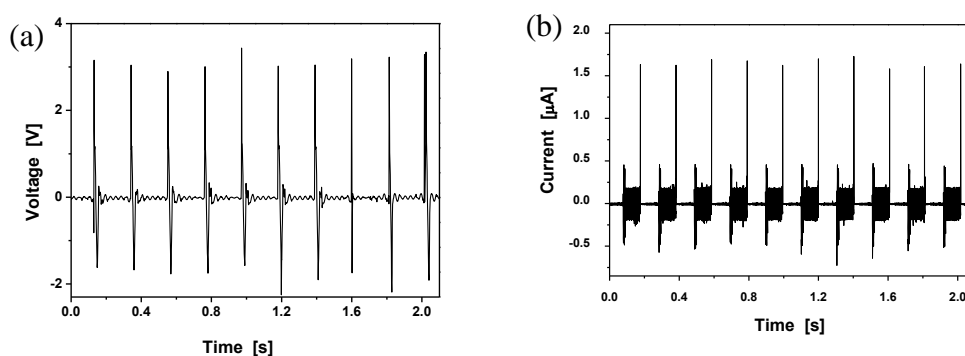


Fig.S5. Power generation of nanogenerators under a series of loading cycles (pressure: 0.2 MPa, frequency: 5 Hz and NaNbO₃ content: 1.0 wt%). (a) Open circuit voltage output of the PVDF/NaNbO₃-based nanogenerators based generator. (b) Current output of the PVDF/NaNbO₃-based nanogenerators.