Confined orientation PVDF/MXene nanofibers for wearable piezoelectric nanogenerators

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Figure S1. Schematic illustration of PENG working mechanism.



Figure S2. TEM image of MXene nanosheets. Scale bar is 50 nm.



Figure S3. DSC spectra of three nanofiber membrane prepared under various rotating speeds.



Figure S4. Comparative piezoelectric charge of three PENGs under same stress.



Figure S5. The voltage output of PENG S-2000 as a function of stress.



Figure S6. FEA of oriented distribution nanofibers responding to stress in three directions. (a) Stress distribution of nanofibers responding to three kinds of applying stress. (b) Deformation of nanofibers under three kinds of applying stress.



Figure S7. Electric output measurement of PENG prepared from S-2000 membrane under three kinds of applying stress. (a) Schematic diagram and digital images of PENG under three kinds of applying stress. (b) The corresponding voltage output of PENG under three kinds of applying stress.



Figure S8. Voltage response of each unit in the PENG array corresponding to Figure 5i.

Table

Table S1. Comparison of plezoelectric performance between different materials		
Nanocomposite	Output current (nA)	References
BTO/PVDF	0.8	[7]
CNT/PVDF	1.2	[8]
hβ-PVDF	30	[9]
GaFeO ₃ /PVDF	4	[10]
ZnO/PVDF	10	[11]
PZT/PVDF	80	[12]
This work	230	

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