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Supporting Information

Air-gap embedded triboelectric nanogenerator via surface modification of non-contact layer using sandpapers

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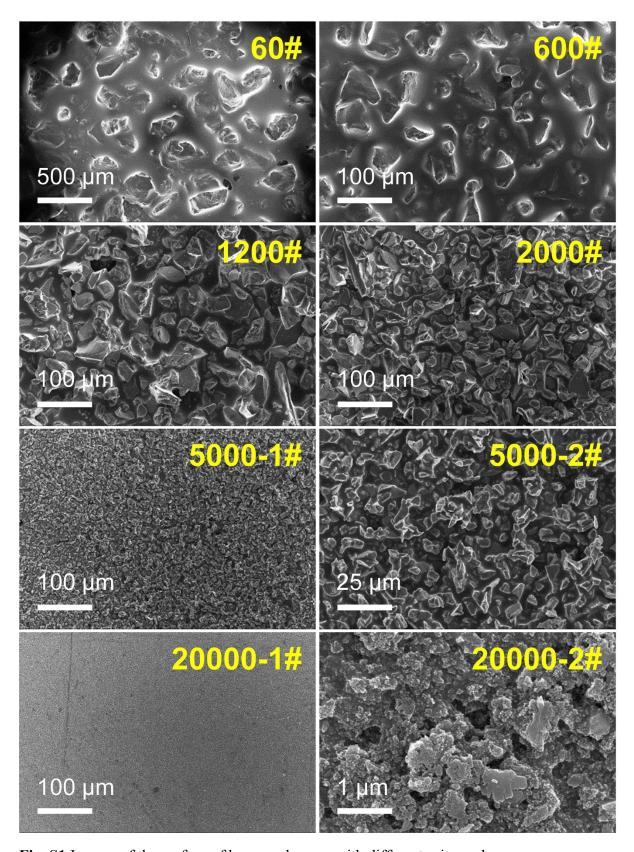


Fig. S1 Images of the surface of bare sandpapers with different grit numbers.

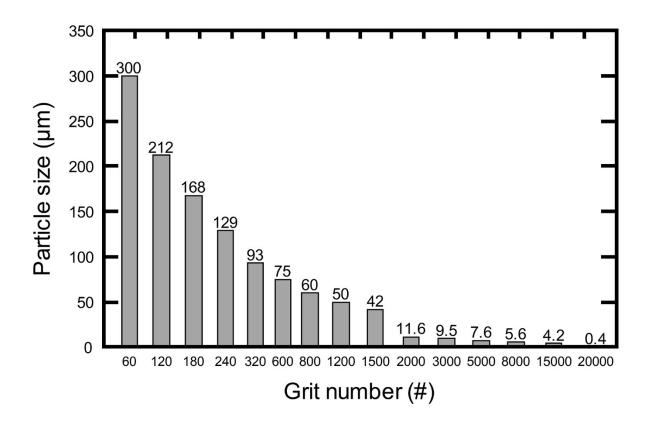


Fig. S2 The particle size of sandpapers with different grit numbers.

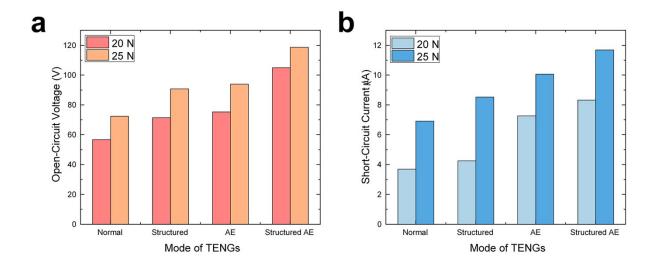


Fig. S3 (a) $V_{\rm OC}$ and (b) $I_{\rm SC}$ by using the contact-separation TENG device with PTFE substrates, Al electrodes, and PDMS contact layer with 20 N and 25 N of the input force.

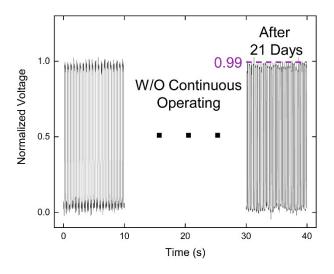


Fig. S4 Intermittent durability test of the structure AE-TENG for 21 days.

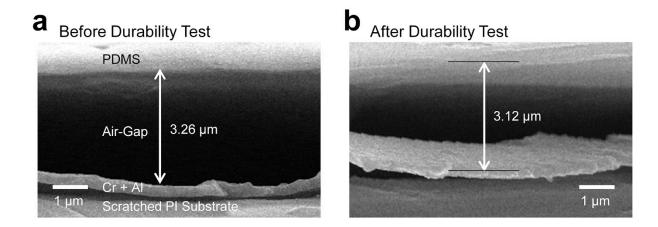


Fig. S5 SEM image for showing the air-gap (a) before durability test and (b) after durability test.