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Fang, Han-Xiong Huang, Lih-Sheng Turng,
Shaoqin Gong



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Hao-Yang Mi^{a,b,d}, Xin Jing^{a,b,d}, Qifeng Zheng^{b,c}, Liming Fang^c, Han-Xiong Huang^a, Li-Sheng Turng^{b,d*}, Shaoqin Gong^{b,c*}

^aDepartment of Industrial Equipment and Control Engineering, South China University of Technology, Guangzhou, 510640, China

^b Wisconsin Institute for Discovery, University of Wisconsin–Madison, Madison, WI 53715, USA

^c Department of Biomedical Engineering, University of Wisconsin–Madison, Madison, WI 53706, USA

^d Department of Mechanical Engineering, University of Wisconsin–Madison, Madison, WI 53706, USA

^e School of Materials Science and Engineering, South China University of Technology, Guangzhou 510641, China

turng@engr.wisc.edu

shaoqingong@wisc.edu

***Corresponding authors:**

Abstract

Finding new means to enhance the performance of triboelectric nanogenerators (TENGs) is an ongoing pursuit. We report a novel flexible TENG made of highly porous cellulose nanofibril (CNF)/polyethylenimine (PEI) aerogel film paired with polyvinylidene fluoride (PVDF) nanofiber mats that exhibits outstanding triboelectric outputs. Modifying CNF with PEI not only enhances the mechanical properties of the CNF/PEI aerogel, but also greatly improves the power density by 14.4 times due to the enhanced tribopositivity. The

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