

Supporting information

Triboelectric nanogenerator with groove textures and carbon- fillers for self-powered cathodic protection

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Variation of open-circuit voltage of CS-TENG with carbon fiber mass fraction under texture sizes of $15\mu\text{m}$ - $15\mu\text{m}$ is illustrated in Fig.S1. As can be seen, with the increase of carbon fiber mass fraction, the open-circuit voltage of CS-TENG first increases and then decreases, reaching a maximum of 102.26 V at a carbon fiber mass fraction of 0.5wt%, which is consistent with that of CS-TENG with under texture sizes of $10\mu\text{m}$ - $10\mu\text{m}$.

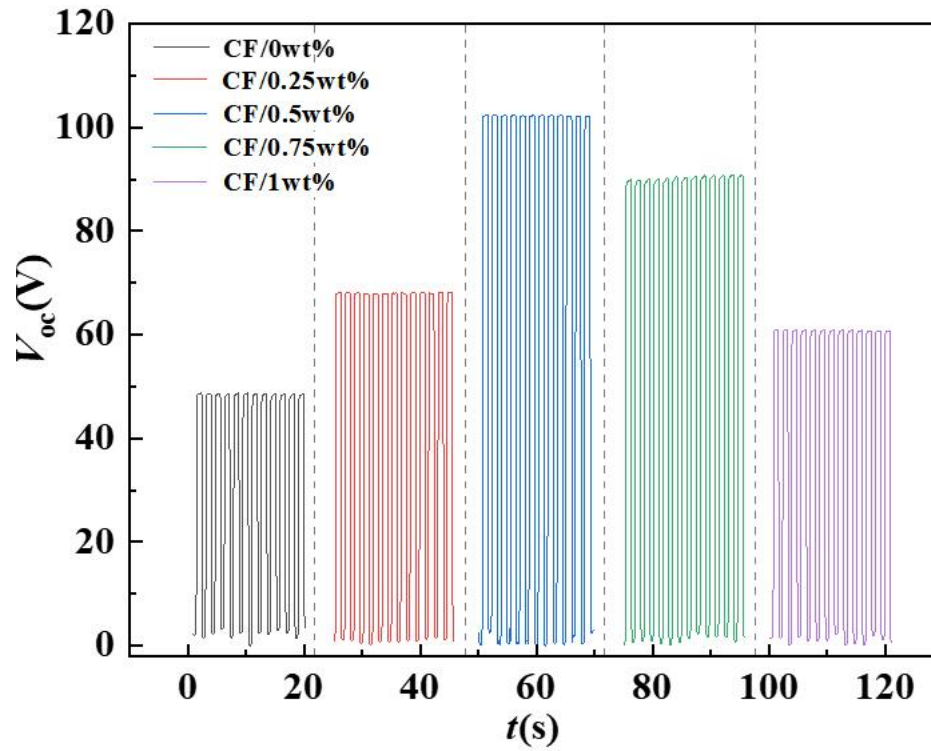


Fig.S1 Open-circuit voltage of CS-TENG with the groove texture size of $15\mu\text{m}$ - $15\mu\text{m}$ and different mass fractions of carbon fibers.