

## **Supporting Information**

### **A new insight into ZIF-67 based triboelectric nanogenerator for self-powered robot object recognition**

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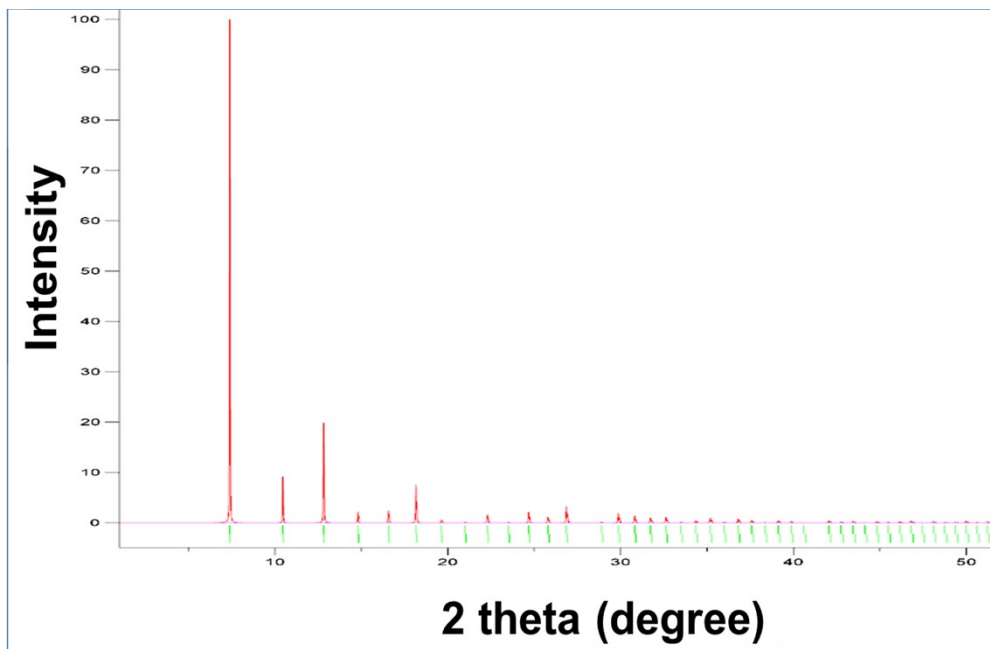
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**Figure S1:** Simulated XRD pattern of ZIF-67 particle.

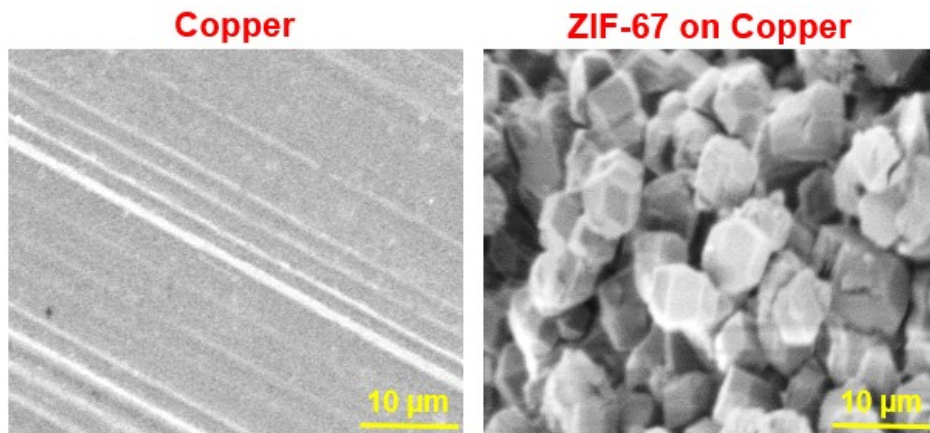
**Figure S2:** Surface micrographs of bare copper electrode and ZIF-67 firmly attached upon copper electrode.

**Figure S3:** Wavelet transformation of the S-TENG signals generated from the gaits of the seven volunteers.

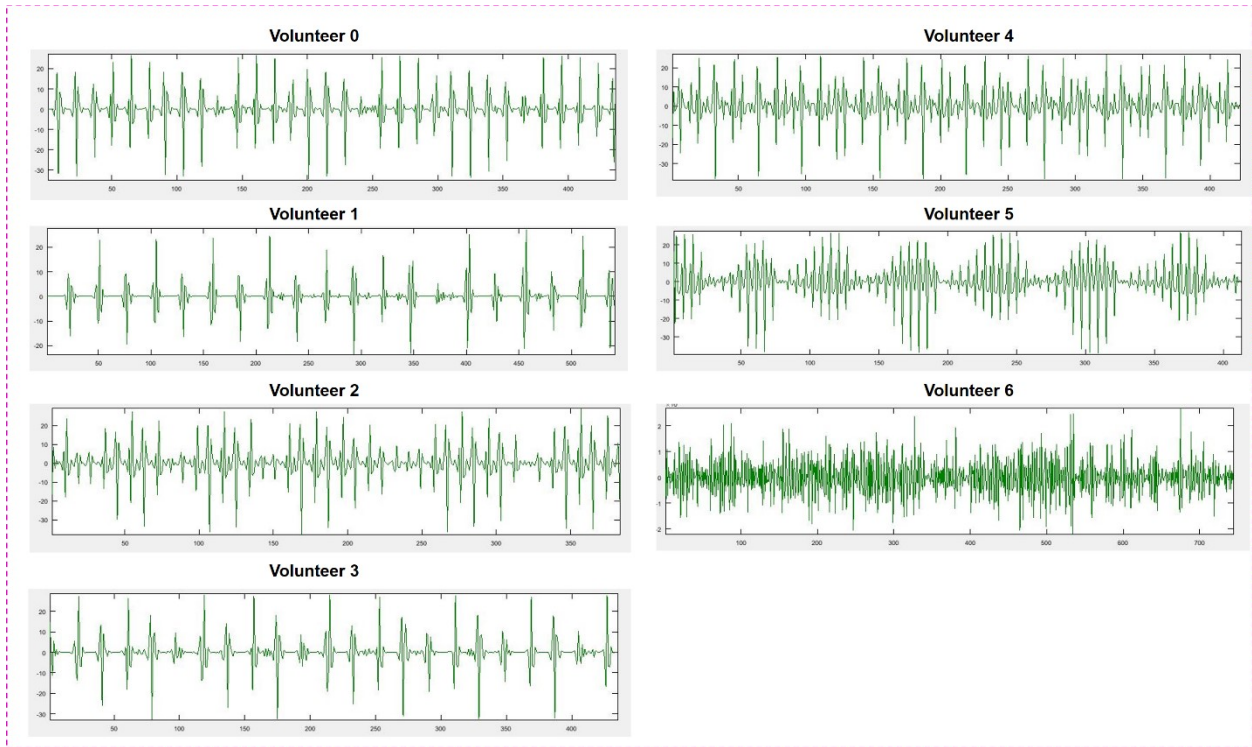
**Table S4:** Comparison of the electrical output of the MOF based TENG devices.



**Figure S1**



**Figure S2**



**Figure S3**

**Table S4**

<b>Positive layer</b>	<b>Negative layer</b>	<b>Voltage (V)</b>	<b>Working Mode</b>	<b>Ref</b>
ZIF-11	Kapton	27	Contact separate	1
ZIF-12	Kapton	42	Contact separate	1
ZIF-9	Kapton	29	Contact separate	1
ZIF-7	Kapton	60	Contact separate	1
ZIF-62	Teflon	62	Contact separate	2
<b>ZIF-67</b>	<b>Teflon</b>	<b>118</b>	<b>Contact separate</b>	<b>This Work</b>

**References:**

[1] G. Khandelwal, N.P. Maria Joseph Raj, S.-J. Kim, *Advanced Functional Materials*, 30 (2020) 1910162.

[2] G. Khandelwal, N.P. Maria Joseph Raj, S.-J. Kim, *Journal of Materials Chemistry A*, 8 (2020) 17817-17825.