

**Supporting Information**

**Stretchable Sensors: Novel Human Motion  
Monitoring Wearables**

Chia-Jung Cho\*, Ping-Yu Chung, Ying-Wen Tsai, Yu-Tong Yang, Shih-Yu Lin, Pin-Shu  
Huang

1 Institute of Biotechnology and Chemical Engineering, I-Shou University, Kaohsiung 84001, Taiwan

\* Correspondence: ppaul288@isu.edu.tw, Tel: 886-7-6577711\*3416 Fax: 886-7-6578945

**Table S1. The conductivity of the conductive layer using different fabrication methods.**

NO.	Samples	Methodology	Conductivity ( S/cm )	Ref.
1	Graphene aerogelse	Hummers method/ Freeze thawe	0.17	[1]
2	Silver foam	Reduction self-assembly/Freeze dryingt	170	[2]
3	Silver nanowire aerogels	Polyol synthesis/ freeze casting thermal annealing	510	[3]
4	Silver flakes-polyacrylamide-alginate hydroge	Modified Free radical polymerization/crosslinking	374	[4]
5	Silver nanowire aerogels	Emulsion template synthesist	66	[5]
6	polyurethane/PPy (PU/PPy)	Electrospinning/in-situ chemical polymerization	276	[6]
7	PEDOT	electrospinning/vapor-phase polymerization	60	[7]
8	Silver nanowires in polyvinyl alcohol	Electrospinning/ in-situ AgNPs	650	[8]
9	SBS/rGO-AgNPs	Electrospinning/in-situ AgNPs	653	<b>This work</b>

## References

- [1] X. Chen; D. Lai; B. Yuan; M.-L. Fu, *Carbon* 162, (2020) 552-561.
- [2] X. Wang; W. Guo; H. Zhang; P. Peng, *ACS Appl. Mater. Interfaces* 13, (2021) 38637-38646.

- 19 [3] F. Qian; P.C. Lan; M.C. Freyman; W. Chen; T. Kou; T.Y. Olson; C. Zhu; M.A.  
20 Worsley; E.B. Duoss; C.M. Spadaccini; T. Baumann; T.Y.-J. Han, *Nano Lett.* 17,  
21 (2017) 7171-7176.
- 22 [4] Y. Ohm; C. Pan; M.J. Ford; X. Huang; J. Liao; C. Majidi, *Nat. Electron.* 4, (2021)  
23 185-192.
- 24 [5] Z. Tian; Y. Zhao; S. Wang; G. Zhou; N. Zhao; C.-P. Wong, *J. Mater. Chem. A* 8,  
25 (2020) 1724-1730.
- 26 [6] S.V. Ebadi; D. Semnani; H. Fashandi; B. Rezaei, *Polym. Adv. Technol.* 30, (2019)  
27 2261–2274.
- 28 [7] A. Laforgue; L. Robitaille, *Macromolecules* 43, (2010) 4194–4200.
- 29 [8] K. Yadav; R. Nain; M. Jassal; A.K. Agrawal, *Compos. Sci. Technol.* 182, (2019)  
30 107766
- 31