## Supplementary Materials: Tunnel Encapsulation Technology for Durability Improvement in Stretchable Electronics Fabrication

Kangmin Leng, Chuanfei Guo, Kang Wu and Zhigang Wu

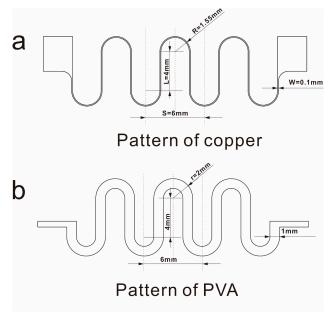
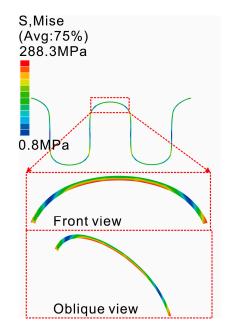
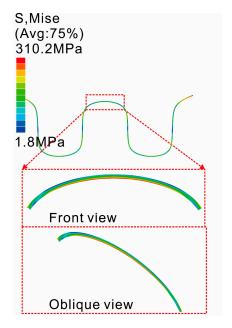


Figure S1. (a) Pattern of copper; (b) Pattern of Polyvinyl Alcohol (PVA).

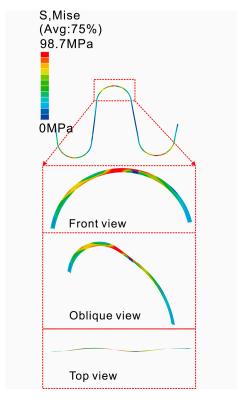
## Finite element analyses (FEA):



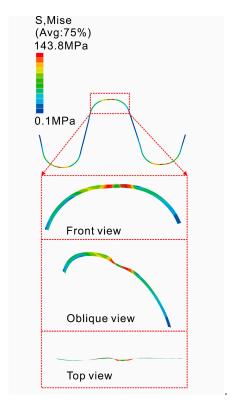
**Figure S2.** Stress distributions and strain contours of the interconnects with direct encapsulation at 30% elongation.



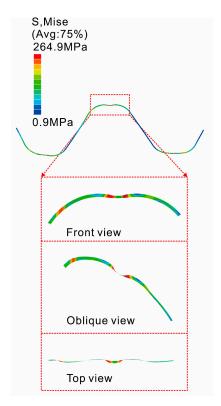
**Figure S3.** Stress distributions and strain contours of the interconnects with direct encapsulation at 50% elongation.



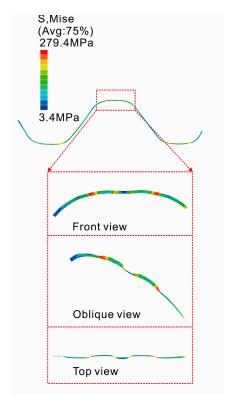
**Figure S4.** Stress distributions and strain contours of the interconnects with tunnel encapsulation at 30% elongation.



**Figure S5.** Stress distributions and strain contours of the interconnects with tunnel encapsulation at 50% elongation.



**Figure S6.** Stress distributions and strain contours of the interconnects with tunnel encapsulation at 100% elongation.



**Figure S7.** Stress distributions and strain contours of the interconnects with tunnel encapsulation at 110% elongation.