Supporting Information:

# High Sensitivity and a Wide Sensing Range Flexible Strain Sensor Based on the V-Groove/Wrinkles Hierarchical Array

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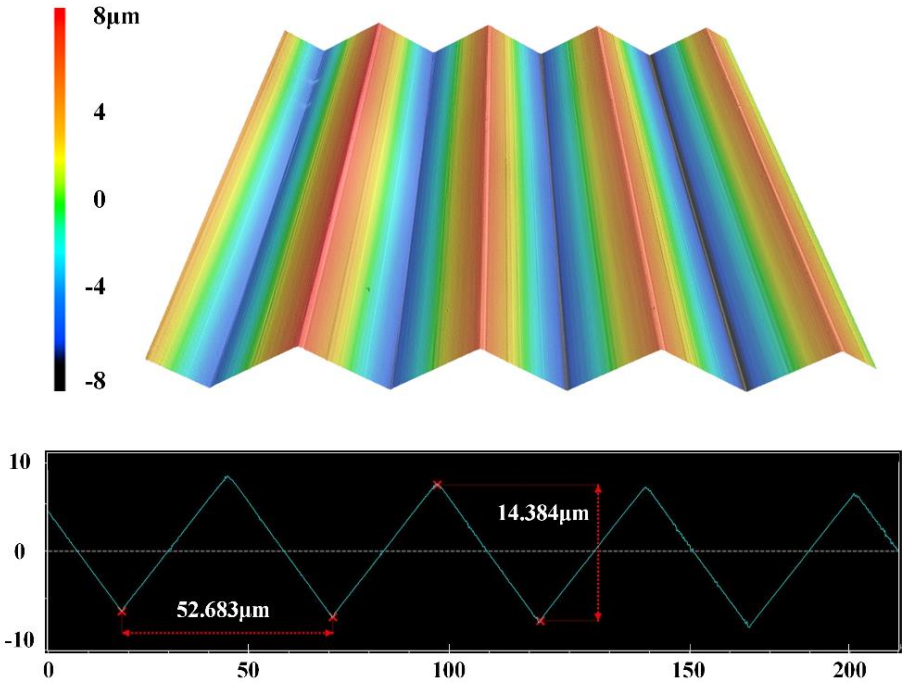


**Figure S1.** The images of V-groove mold.

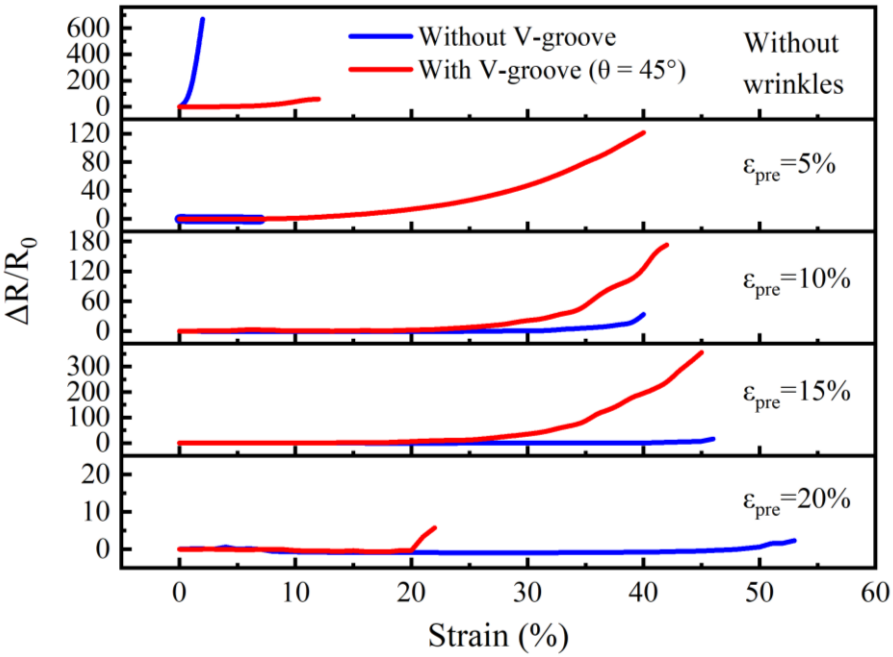


**Figure S2.** The resistance change rate of devices with different pre-strain. When $\varepsilon_{pre}$ = 0%, no wrinkles structure is formed.

**Table S1.** Comparison of the sensing performance of various flexible strain sensors.

| Preparation strategy of flexible strain sensors | Maximum GF | Maximum sensing range | Ref. |
|---|---|---|---|
| V-groove/wrinkles hierarchical array | 2257.71 | 45% | This work |
| Serpentine-patterned sensor | 38.7 | 100% | 1 |
| Liquid Metal/PDMS | 2.33 | 105% | 2 |
| Micropatterned PDMS film and PPy/Ag film | 21 | 20% | 3 |
| Local Crack-Programmed Gold Nanowire | 1360 | 79% | 4 |
| Wrinkled graphene | 37.1 | 50% | 5 |
| V-groove array | 5888.59 | 2% | 6 |
| Au/Structured Microfibers | 42.3 | 120% | 7 |
| CNT/micropillar–wrinkle hybrid architectures | 707 | 50% | 8 |

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