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A Facile, Precise Radial Artery Pulse Sensor Based on Stretchable Graphene-Coated Fiber

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Highlights

- Radial artery pulse sensor was fabricated with flexible graphene-coated fiber.
- Periodic pulse wave and subtle wave changes were successfully detected.
- The radial artery augmentation index could be accurately calculated from the obtained waveform.

ABSTRACT

We design and fabricate a facile, portable and scalable radial artery pulse sensor, then successfully employing it into the analysis of personalized health status. The sensing component is a stretchable graphene-coated fiber which shows good linearity and sensitivity to the tensile strain. Further combined with smart structure of the sensor, the precise detection of periodic pulse wave and the wave changes induced by exercise and disease becomes repeatable. In particular, the obtained

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