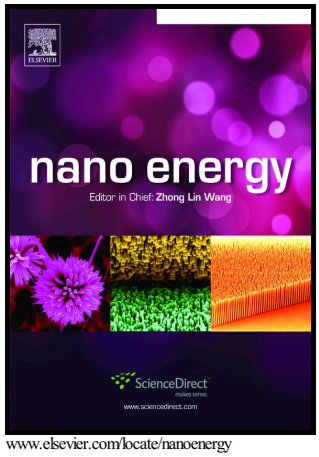

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ABSTRACT:

With the growing demand for electronic medical devices for healthcare applications, we studied an implantable supercapacitor that can operate in an implantable electronic device. Here, we report a flexible implantable fiber supercapacitor for an in vivo energy storage device. The fiber supercapacitor has a high flexibility and a high potential to be applied in an implant device because the fiber can be implanted in the blood vessel and the wound can be stitched with the fiber-like suture. The fiber electrodes were fabricated in a biscrolling process that trapped poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) (PEDOT:PSS)/ferritin