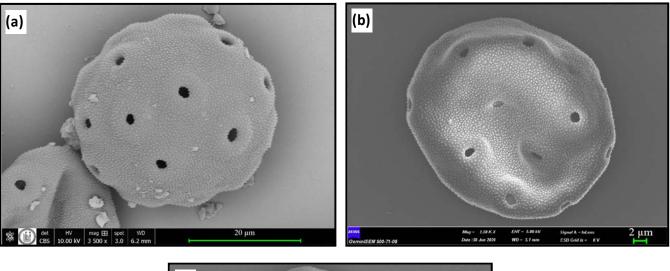
## **Supporting Information**

Juglans Sporopollenin for High-Performance Supercapacitor Electrodes Design

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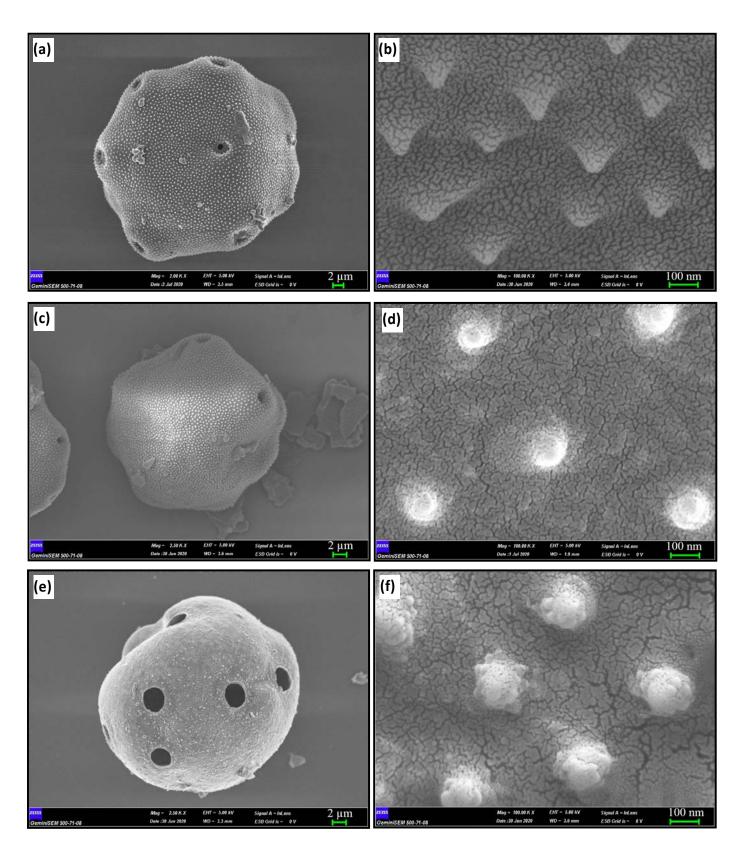
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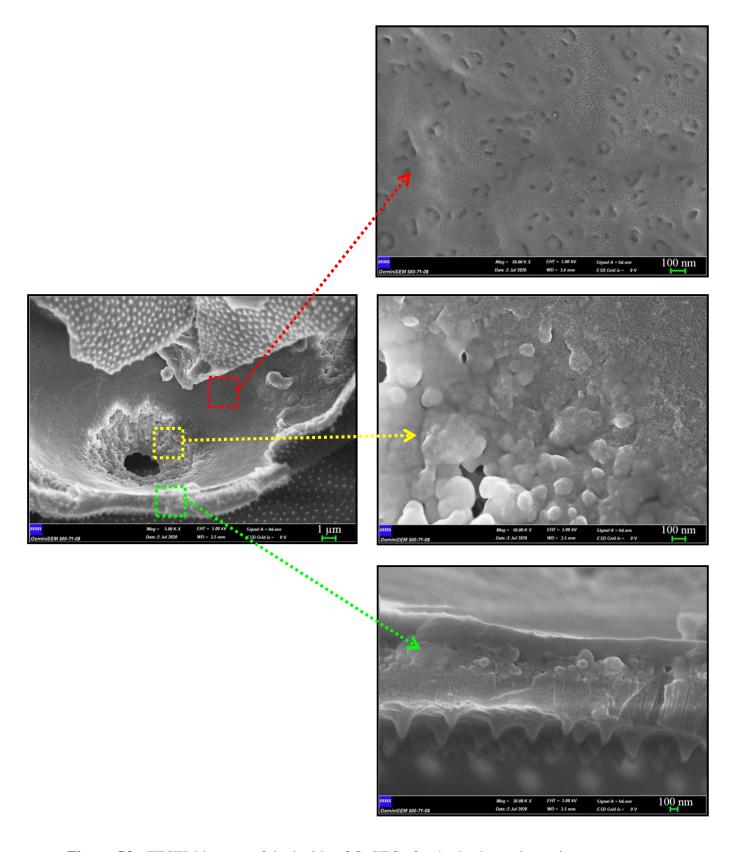




**Figure S1:** FESEM images of *Juglans* sporopollenin exine microcapsules (SECs) (a) bare SEC, (b) annealed SEC at 300 °C, (c) annealed SEC at 360 °C.



**Figure S2:** Cobalt coated *Juglans* SECs (a-b) after hydrothermal reactions (CoSEC), after annealing process, (c-d) CoSEC- 300, (e-f) CoSEC- 360.



**Figure S3:** FESEM images of the inside of CoSEC after hydrothermal reaction.

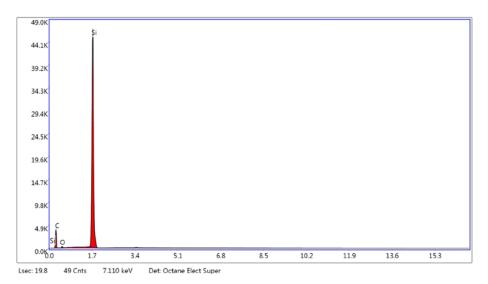
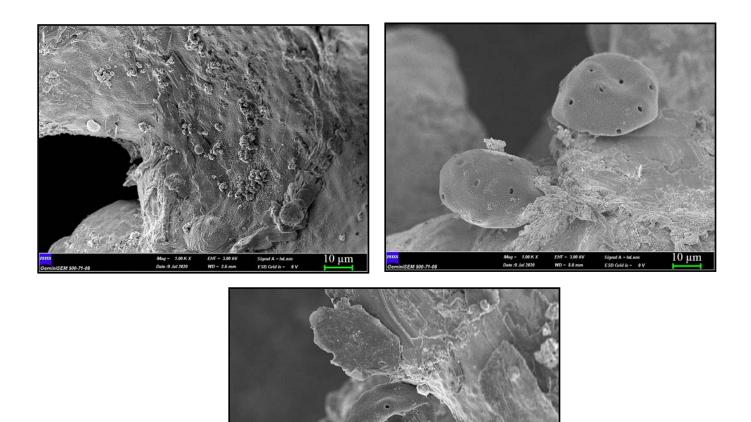
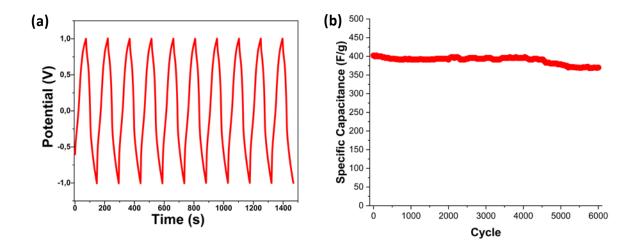


Figure S4: EDX spectrum of the inside of CoSEC after hydrothermal reaction.



**Figure S5:** FESEM images of CoSEC/NF-300 electrode after long term cycle test in 6M KOH electrolyte.



**Figure S6**: Electrochemical performance of asymmetric CoSEC-300/NF//AC supercapacitor. a) Galvonostatic first ten CD curves, b) Long term cycle stability at 5 A g<sup>-1</sup>.

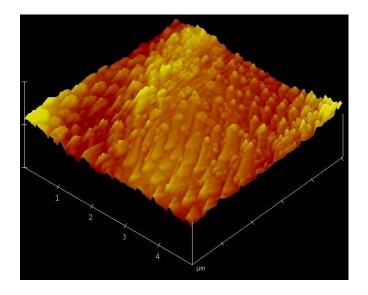


Figure S7: AFM image of SEC.