


Supporting Information

Edible Polysaccharide-based Ultraflexible Organic Transistors for Nutritive Electronics

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2. Supporting Information References

1. Device weight measurement.

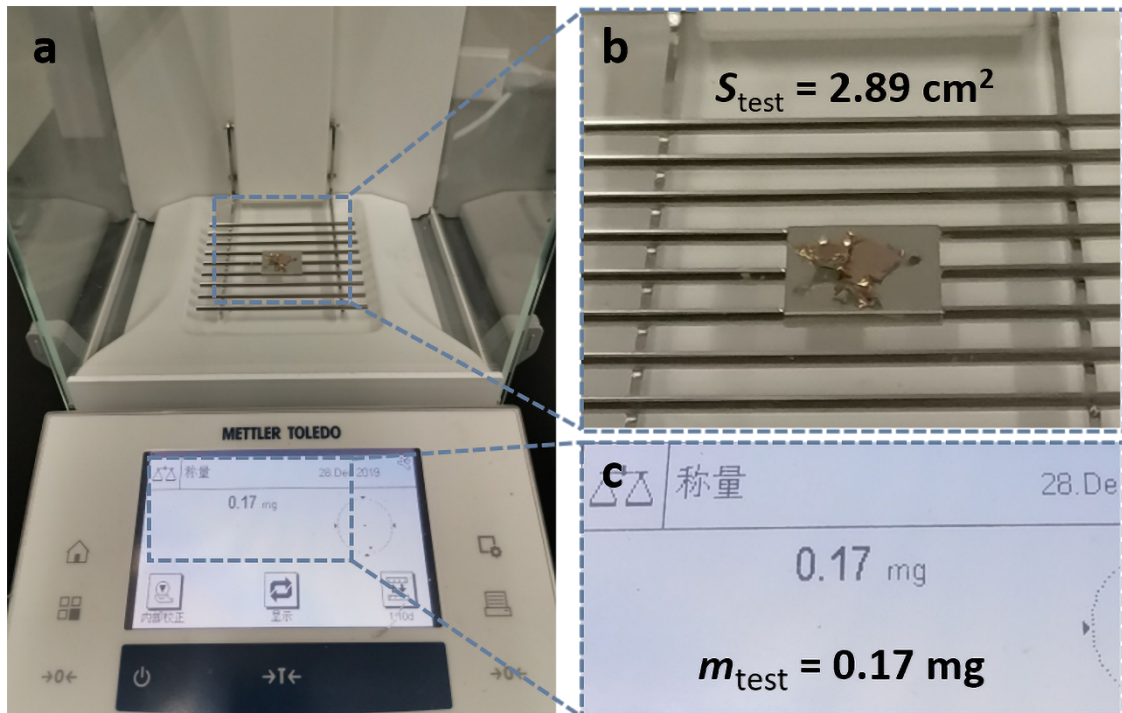


Fig. S1 a) The picture of the weight measurement. b) A $1.7 \times 1.7 \text{ cm}^2$ OFET array is placed on the measuring table of an electronic balance. c) The test weight of the whole device is 0.17 mg. Therefore, we can calculate that the mass of the device per unit area is $\sim 0.59 \text{ g m}^{-2}$.

2. The detailed schematic diagram of the device preparation process.

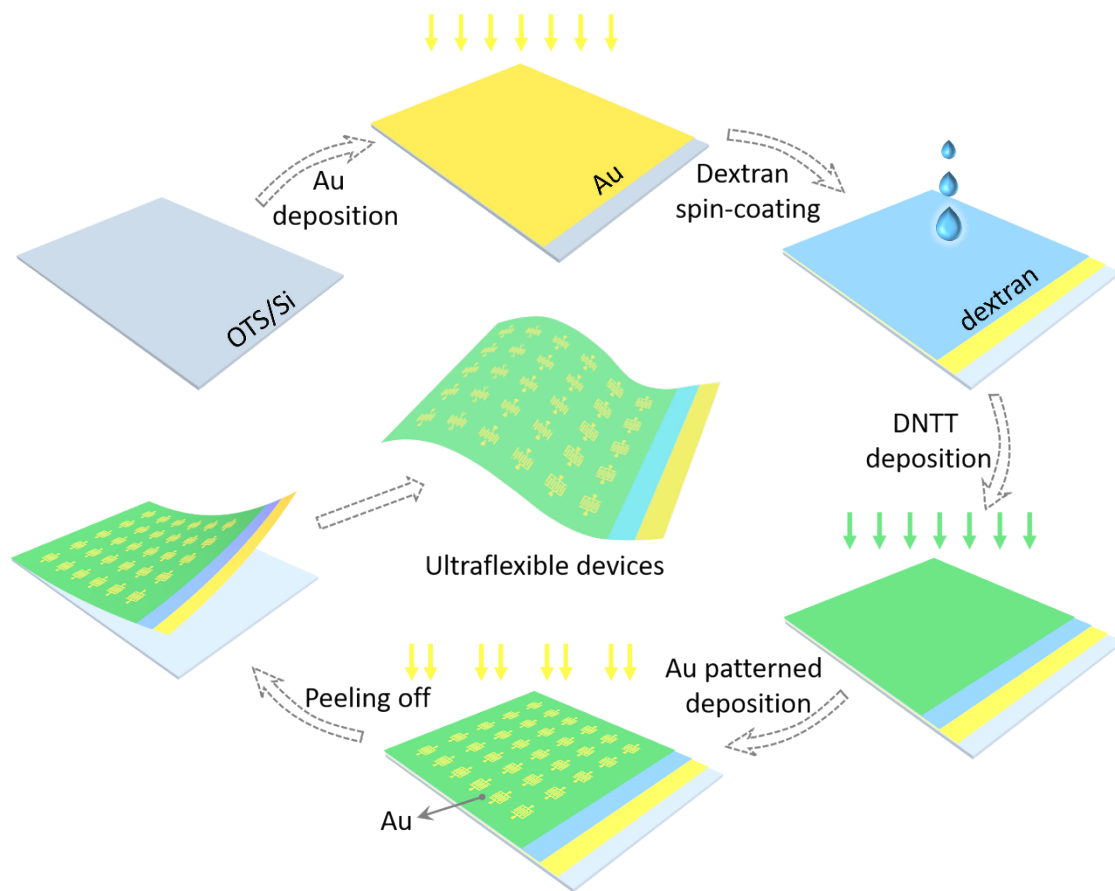


Fig. S2 The fabrication schematic of transistors with a bottom-gate top-contact device configuration.

3. The reliability factor of the typical OFET of Figure 4b.

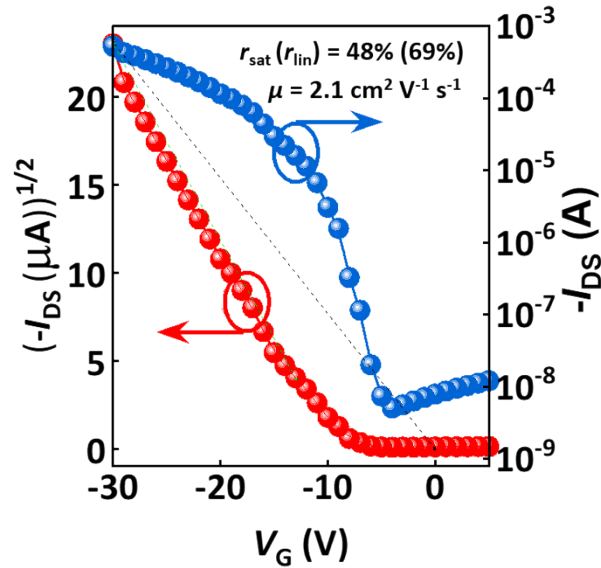


Fig. S3 The typical transfer curve of Figure 4b. The reliability factor, r , assesses whether the behavior of reported FETs follows the physics of the simple linear increase of conductivity with carrier density under the assumption of constant mobility and negligible threshold voltage.¹ The green dashed line indicates the slope for calculating the claimed mobility. The black dashed line represents the slope of an electrically equivalent ideal FET. r_{sat} equal to the ratio squared of the slope of the black and green dashed line. r_{lin} equal to the ratio of the slope of the black and green dashed lines.

4. The ultraflexible demonstration of edible polysaccharide-based OFETs.

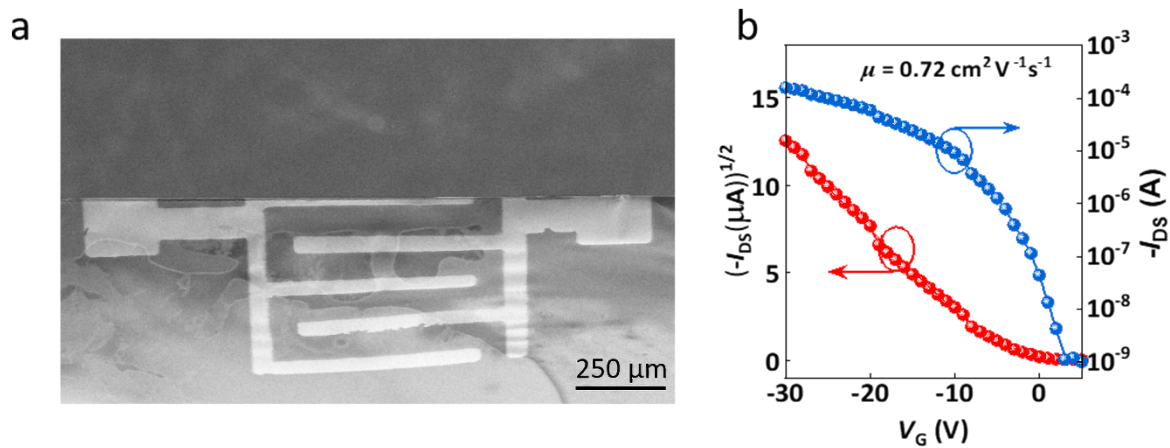


Fig. S4 a) The device was picked up by human hair. (Scale bar: 250 μm.) b) The corresponding transfer curve.

2. Supporting Information References

- 1 H. H. Choi, K. Cho, C. D. Frisbie, H. Sirringhaus and V. Podzorov, *Nat. Mater.*, 2017, **17**, 2-7.