

Supporting information for
N, S co-doped hierarchical porous carbon from Chinese
herbal residues for high-performance supercapacitors and
oxygen reduction reaction

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1. Figures

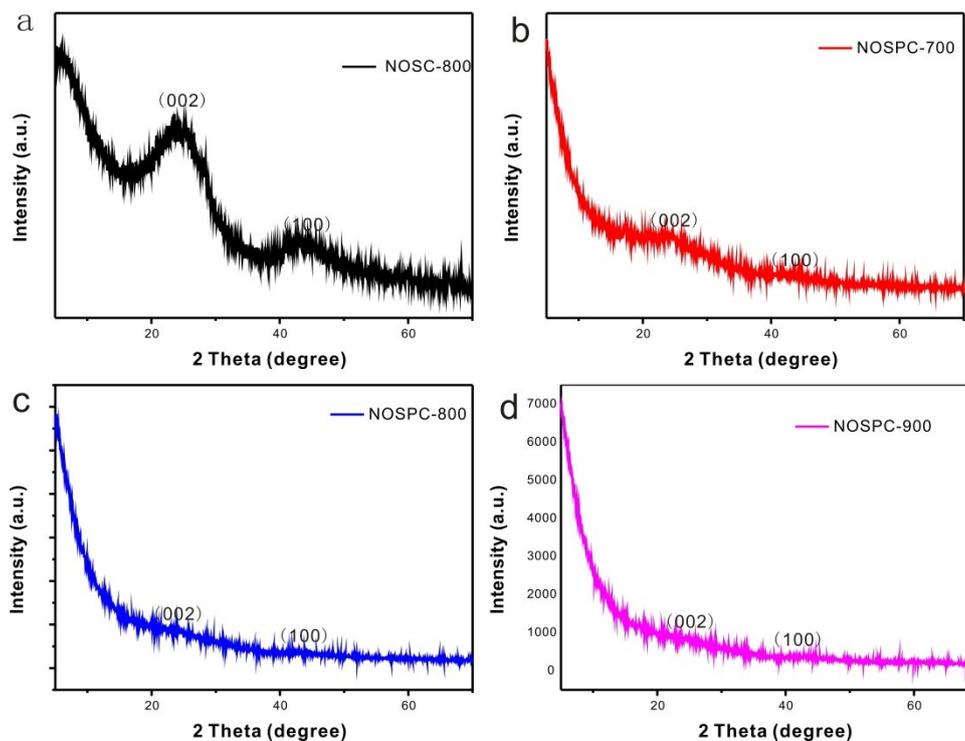


Fig.S1 XRD patterns of NOSC-800(a), NOSPC-700(b), NOSPC-800(c) and NOSPC-900(d) samples

2. Table

Table S1 Element analysis of NOSC-800 and NOSPC-X samples

| Samples | C (%) | O (%) | N (%) | S (%) |
|-----------|-------|-------|-------|-------|
| NOSC-800 | 73.92 | 14.16 | 2.80 | 0.85 |
| NOSPC-700 | 68.97 | 23.03 | 1.11 | 2.53 |
| NOSPC-800 | 82.37 | 12.11 | 0.90 | 2.00 |
| NOSPC-900 | 85.03 | 7.97 | 0.69 | 2.93 |

Table S2 Comparison of electrochemical performance of activated carbons from biomass precursors

| Biomass precursor | SSA (m ² g ⁻¹) | Test system (electrode) / Electrolyte | Current density (A g ⁻¹) | Specific capacitance (F g ⁻¹) | Ref. |
|--|--|--|---|--|------------------|
| ant powder | 2650 | 2E/6M KOH | 0.1 | 352 | 1 |
| soybean | 1749 | 3E/6M KOH | 0.5 | 243.2 | 2 |
| bamboo char | 1732 | 3E/6M KOH | 0.5 | 222.0 | 3 |
| perilla frutescens | 655 | 3E/6M KOH | 0.5 | 270 | 4 |
| willow catkin | 1533 | 3E/6M KOH | 0.5 | 298 | 5 |
| tobacco rods | 2115 | 3E/6M KOH | 0.5 | 286.6 | 6 |
| elm samara | 1947 | 2E/6M KOH | 1 | 155 | 7 |
| willow catkins | 1775.7 | 3E/6M KOH | 1 | 292 | 8 |
| bagasse | 2296 | 3E/6M KOH | 0.5 | 320 | 9 |
| lignocellulosic | 952 | 3E/6M KOH | 1 | 225 | 10 |
| cornstalk | 1588 | 3E/1 M H ₂ SO ₄ | 1 | 407 | 11 |
| basswood block | 1438 | 2E/4M KOH | 0.2 | 135 | 12 |
| cellulose carbamate | 3700 | 3E/6M KOH | 0.5 | 339 | 13 |
| phoenix leaves | 2208 | 3E/6M KOH | 0.5 | 254 | 14 |
| Chinese herbal residues (Wubeizi) | 3351.8 | 2E/6M KOH | 0.1 | 324.06 | This work |

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