

Electronic Supplementary Information

Synthesis of three-dimensional hyperbranched TiO₂ nanowire arrays with significantly enhanced photoelectrochemical hydrogen production

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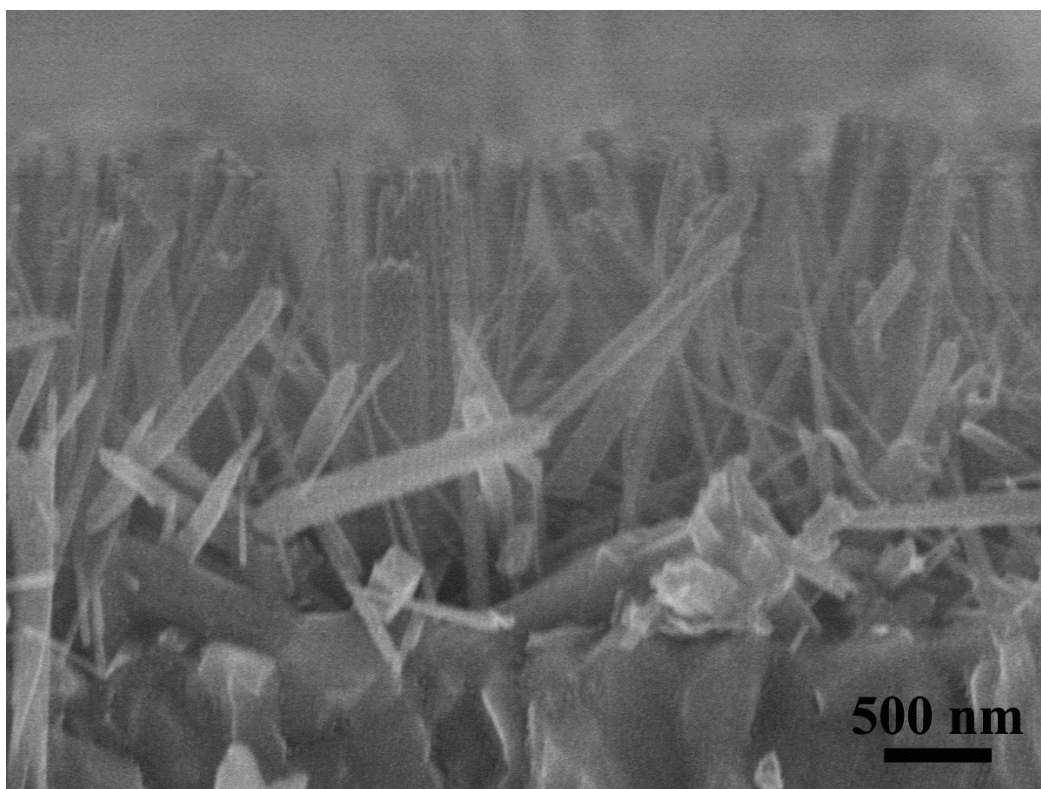


Figure S1. Cross-sectional SEM view of the TiO₂ NWs.

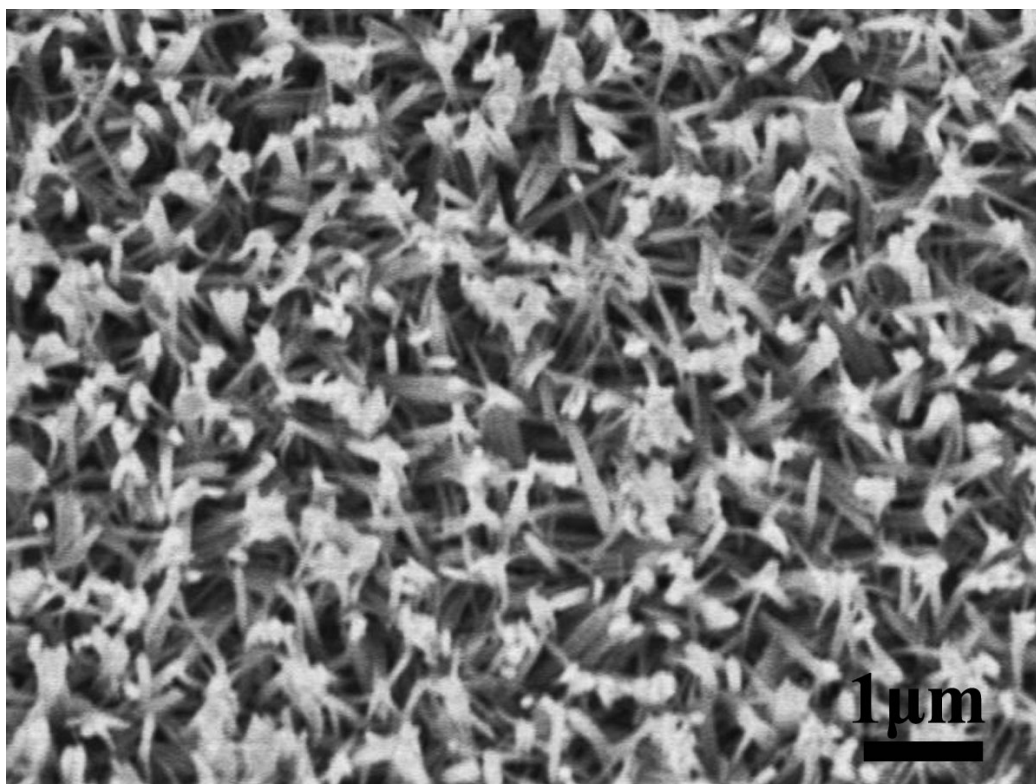


Figure S2. Top view SEM view of the TiO₂ seeded NWs.

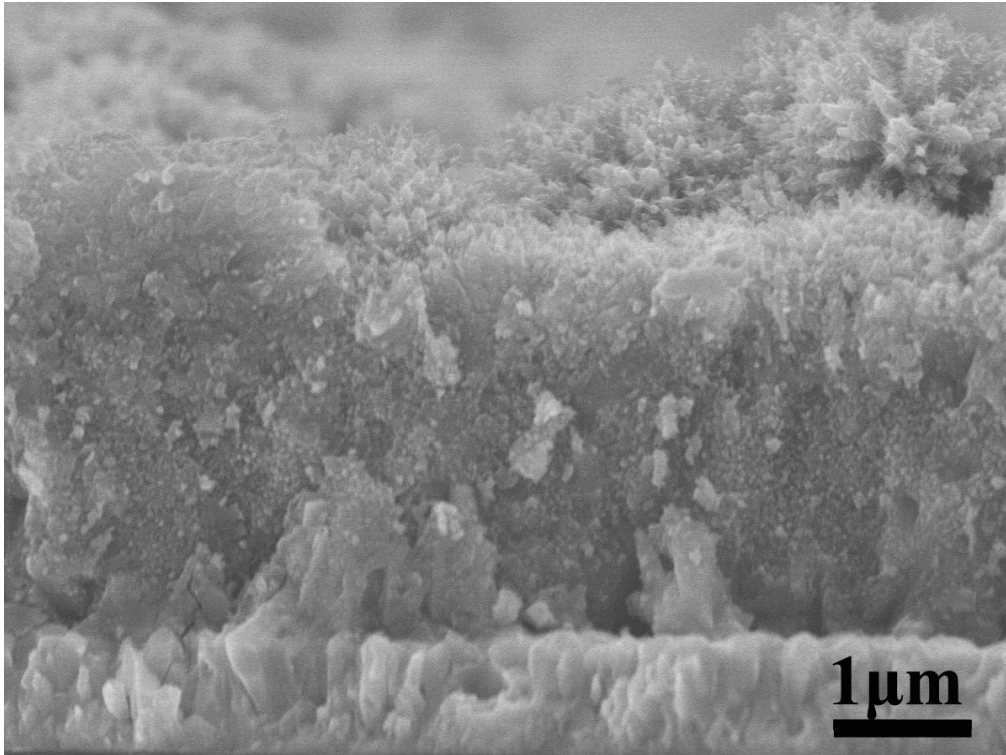


Figure S3. Cross-sectional view of the hyperbranched hierarchical TiO₂ nanowires.

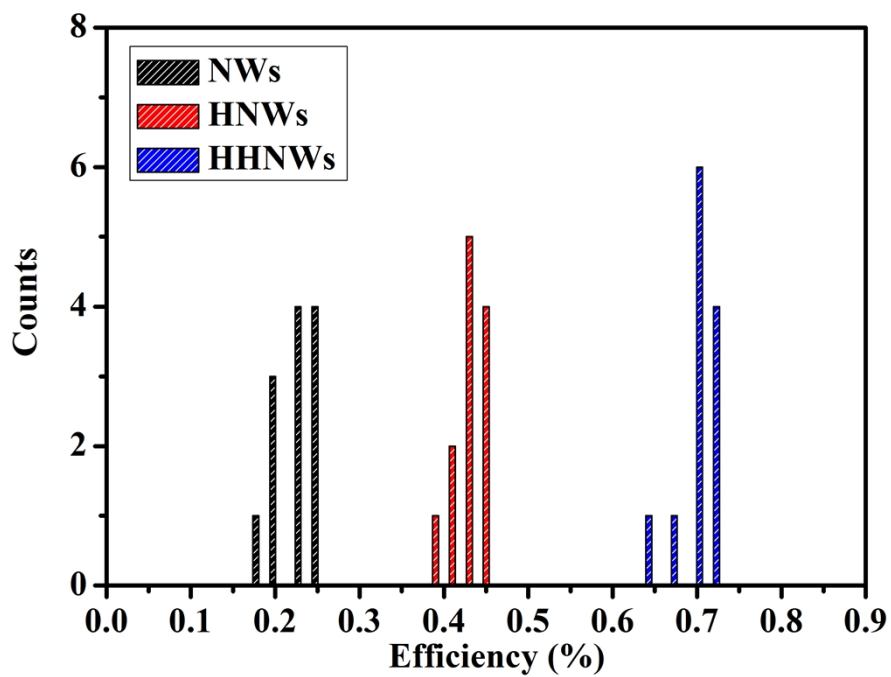


Figure S4. The efficiency distributions of NWs, HNWs, and HHNWs on FTO substrates over 10 devices measurements.

Table S1: Summary of BET specific surface areas and Roughness factor of TiO₂ NWs, HNWs, and HHNWs. (Roughness factor = S * m), where S is BET surface area; m is Mass per unit area)

| Sample | Surface area (m ² g ⁻¹) | Roughness factor |
|--------|--|------------------|
| NWs | 7.1 | 73.8 |
| HNWs | 13.4 | 149.6 |
| HHNWs | 108.6 | 4072.3 |