

Electronic Supplementary Information

Kinetically Controlled Way to Create Highly Uniform Mono-dispersed ZnO Sub-microrods for Electronics

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Figure S1.

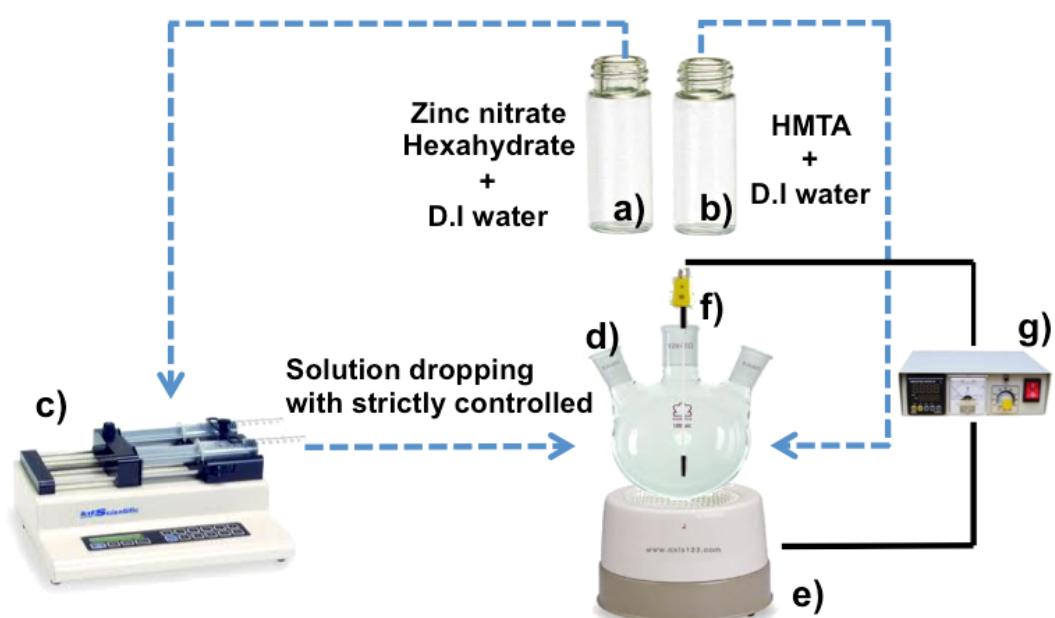


Figure S1. Schematic diagram for the kinetically controlled ZnO sub-microrods synthesis system. a) zinc nitrate solution, b) hexamethylenetetramine (HMTA) solution, c) dual-syringe pump, d) three-necks ground flask, e) heating-mantle, f) thermocouple, g) thermal controller.

Figure S2.

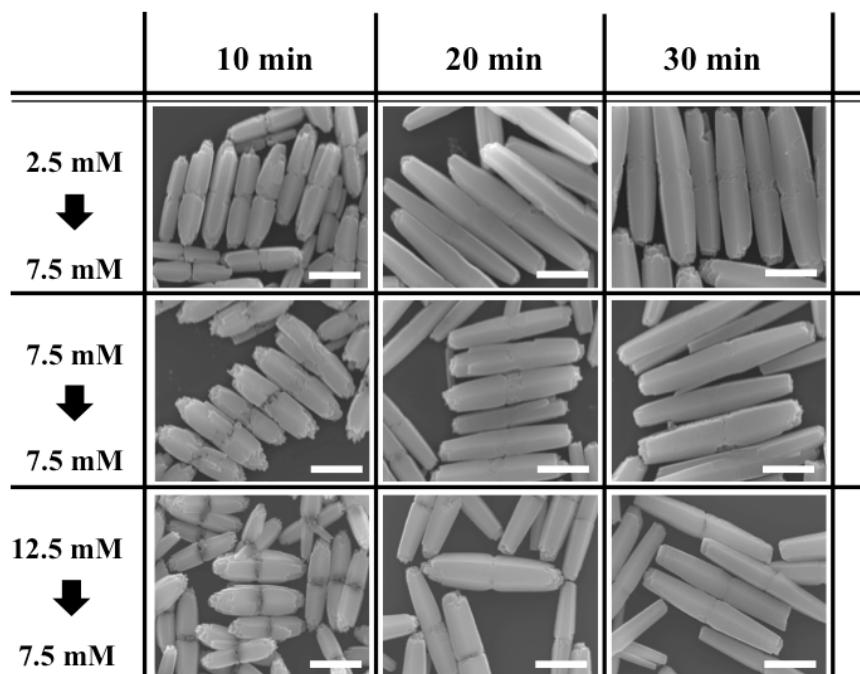


Figure S2. The influence of the concentration of initially supplied Zn^{2+} ions on the synthesis of ZnO sub-microrods. (scale bar = $1\mu m$)

Figure S3.

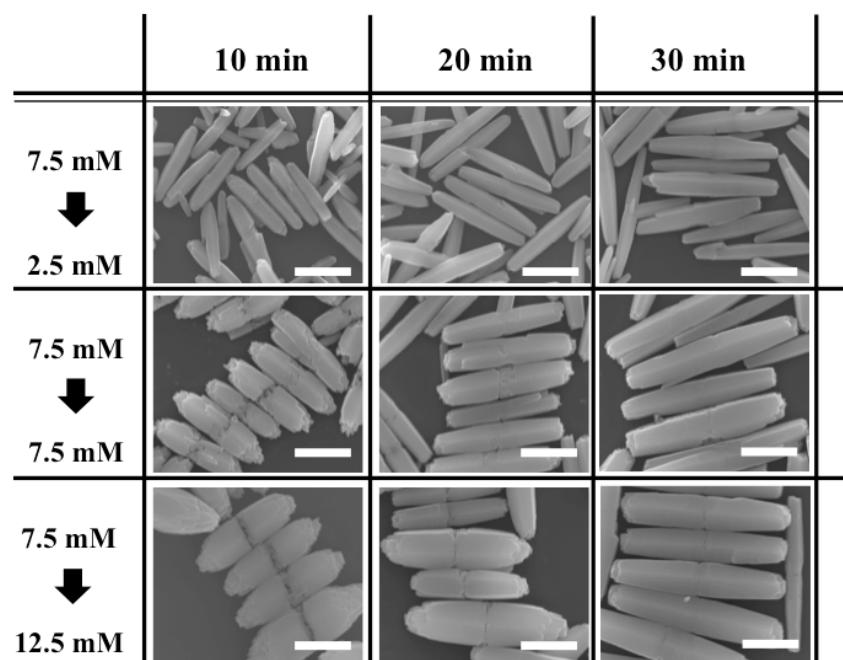


Figure S3. The influence of the concentration of additional solution supplied Zn^{2+} ions on the synthesis of ZnO sub-microrods. (scale bar = $1\mu m$)

Figure S4.

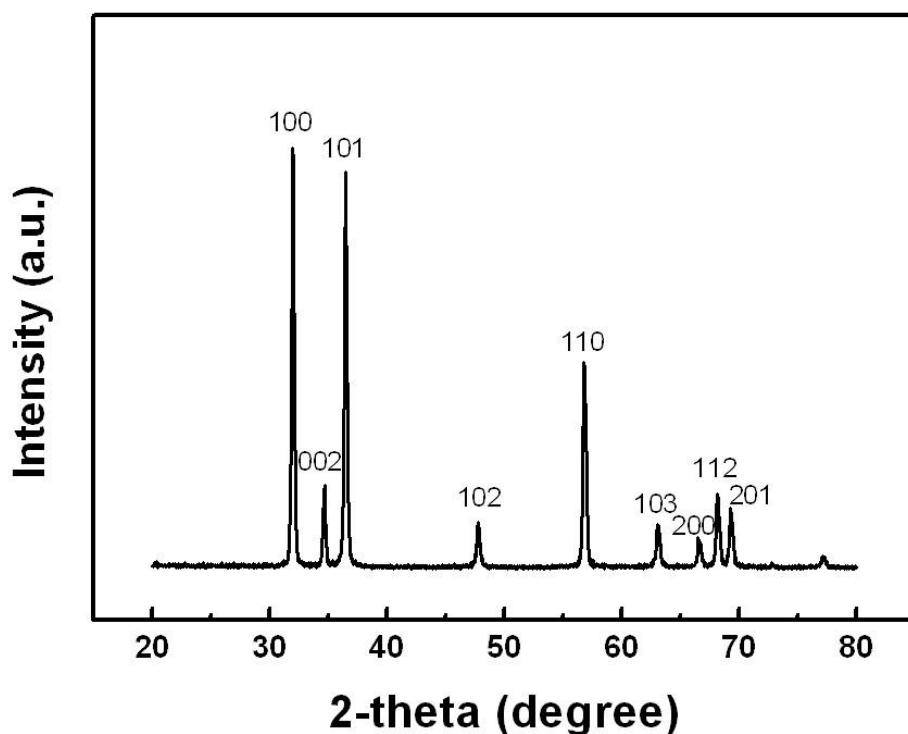


Figure S4. XRD pattern of ZnO sub-microrods. (growth time: 10s, seed: 7.5mM and growth 7.5mM conditions)

Table S1. The summarization of the average length and diameter of ZnO sub-microrods shown in Figure S3.

| Parameter | Unit (μm) | 10 min | 20 min | 30 min |
|---------------|------------------------|--------|--------|--------|
| 7.5 → 2.5 mM | Length | 1.33 | 1.81 | 2.37 |
| | Diameter | 0.29 | 0.31 | 0.37 |
| 7.5 → 7.5 mM | Length | 1.86 | 2.35 | 3.05 |
| | Diameter | 0.46 | 0.49 | 0.52 |
| 7.5 → 12.5 mM | Length | 1.76 | 2.34 | 3.09 |
| | Diameter | 0.53 | 0.57 | 0.61 |