

Online supporting information

**Optimizing and Improving the Growth Quality  
of ZnO Nanowire Arrays Guided by  
Statistically Designed Experiments**

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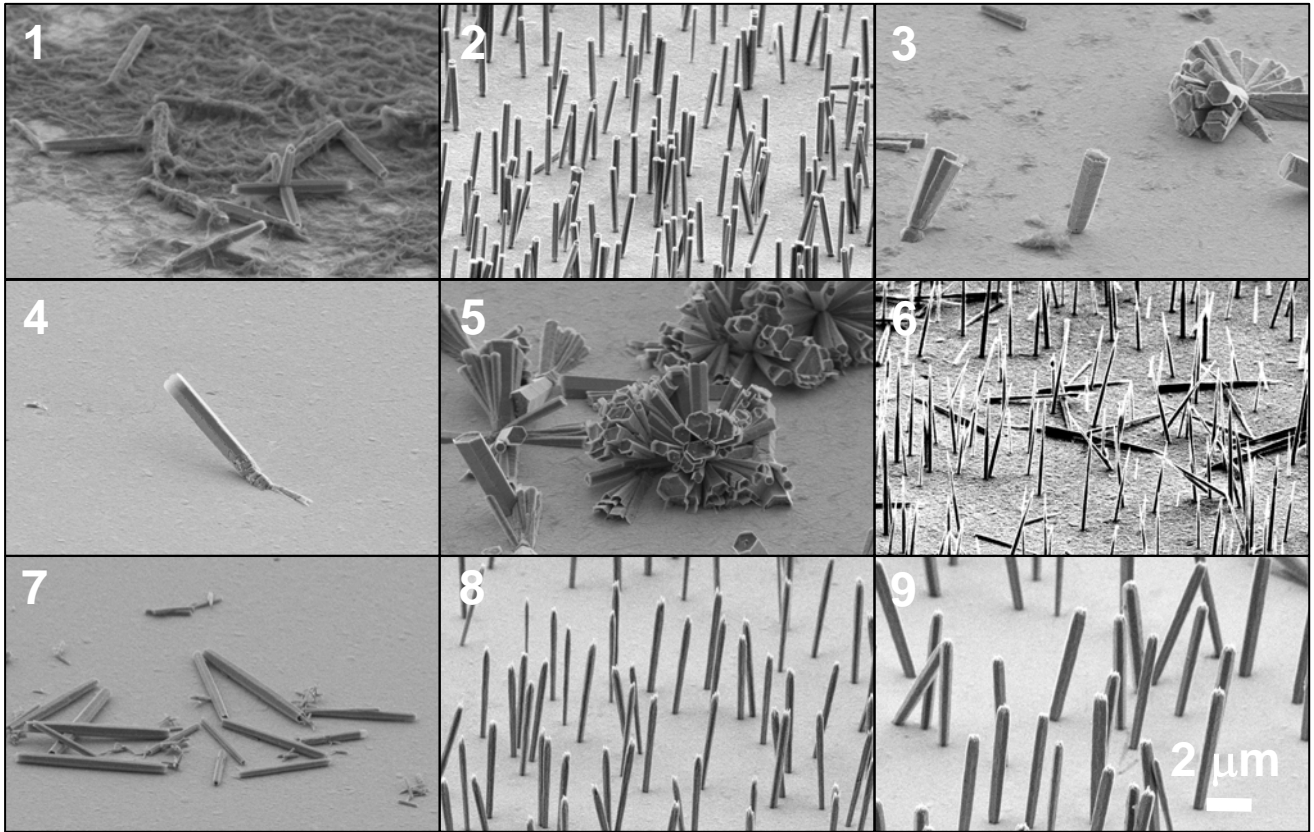


Figure S1. Representative SEM images of the samples in experiment stage II.

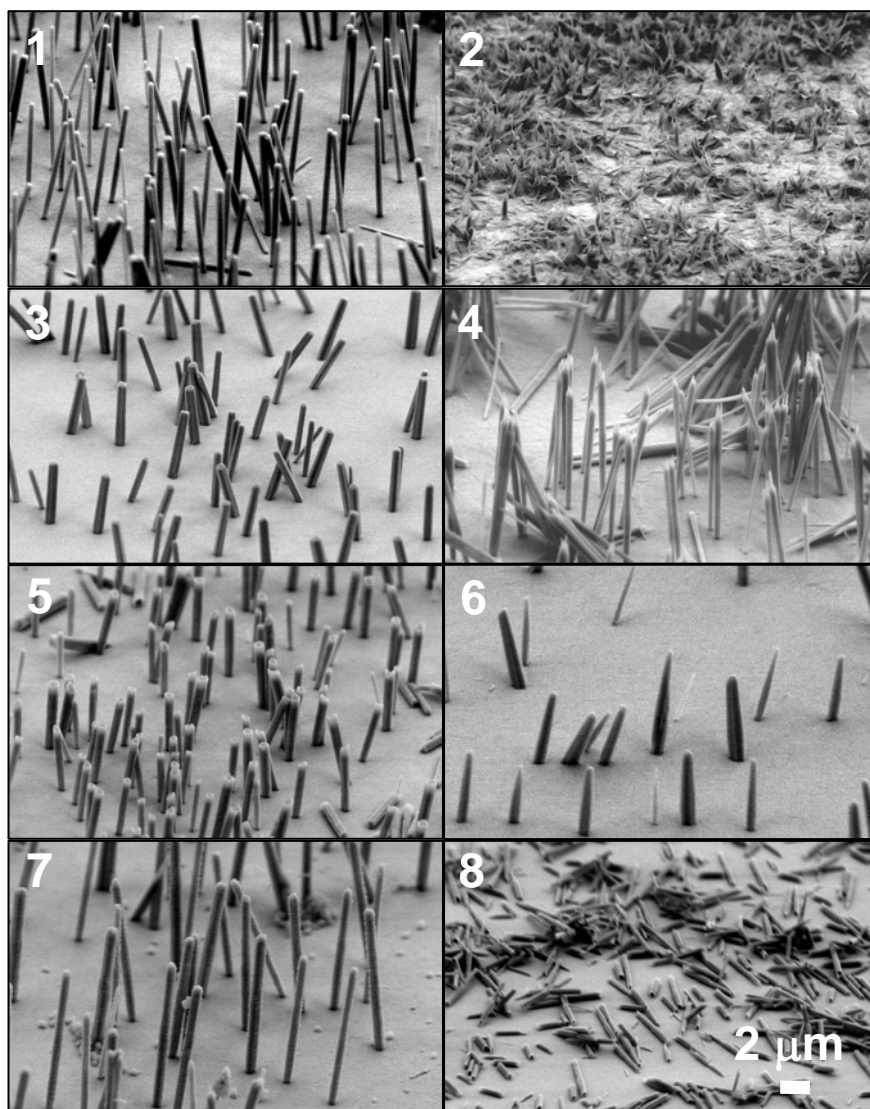


Figure S2. Representative SEM images of the samples of the first trial in experiment stage III.

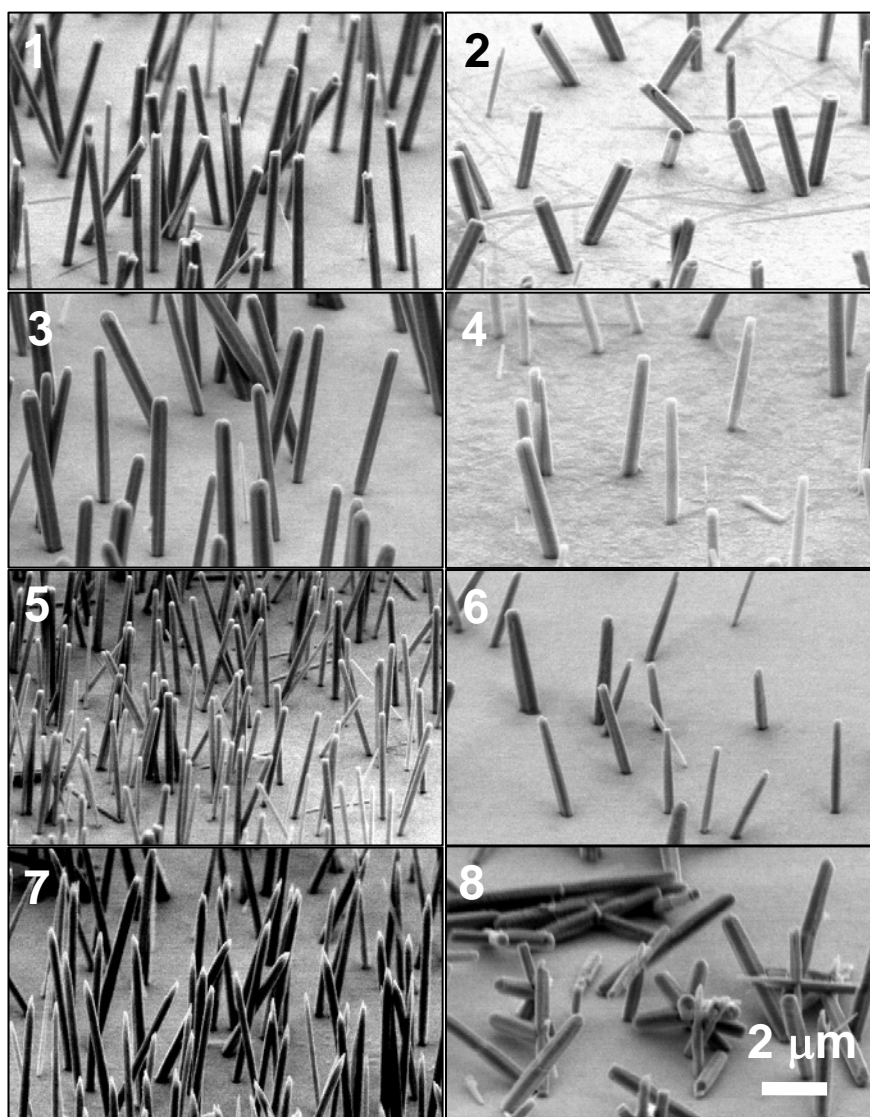


Figure S3. Representative SEM images of the samples of the second trial in experiment stage III.

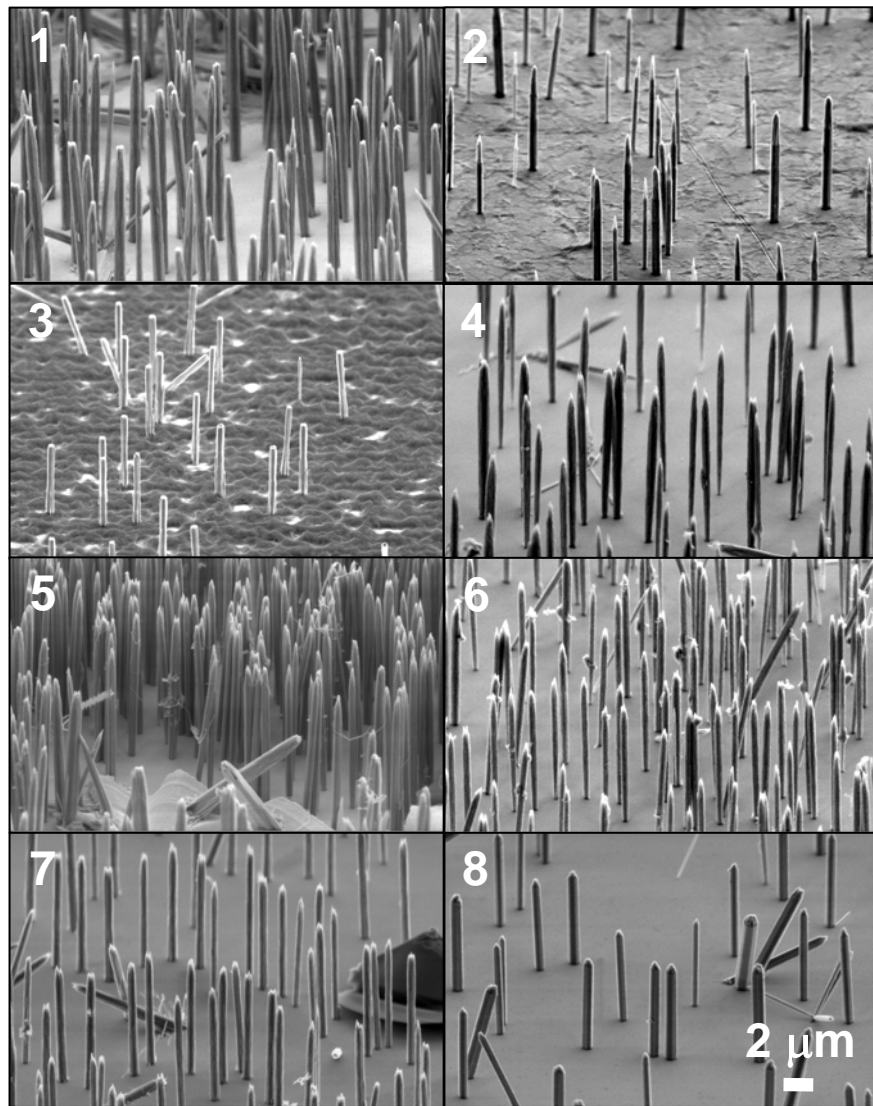


Figure S4. Representative SEM images of the samples in experiment stage IV.

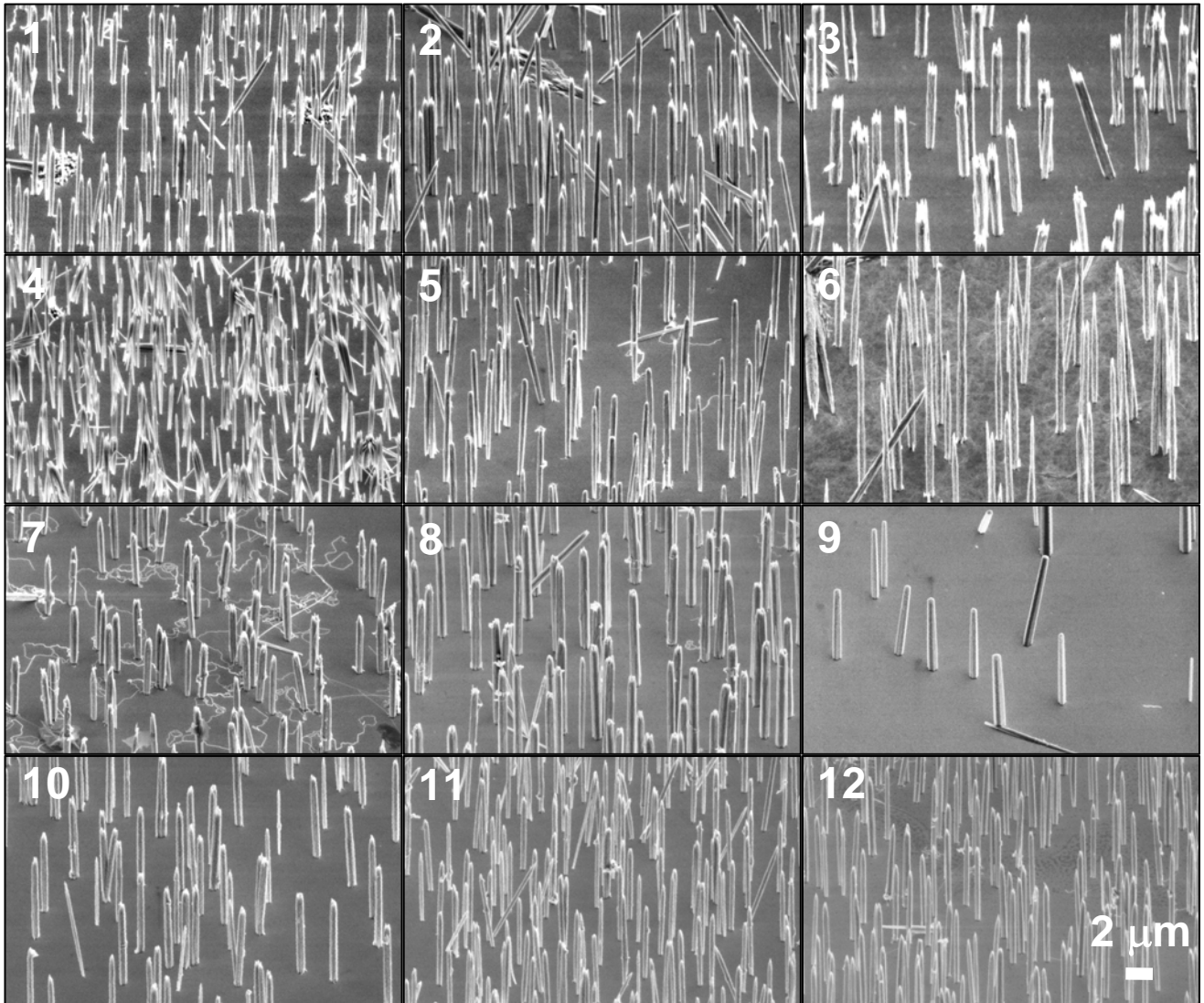


Figure S5. Representative SEM images of the samples in experiment stage V.

Figure S6. One-group-at-a-time main effect analysis for Zn concentration in stage V. (Note: Red lines and blue lines correspond to temperatures of 80 °C and 94 °C, respectively. Solid lines and dotted lines correspond to times of 24 hours and 36 hours, respectively.)

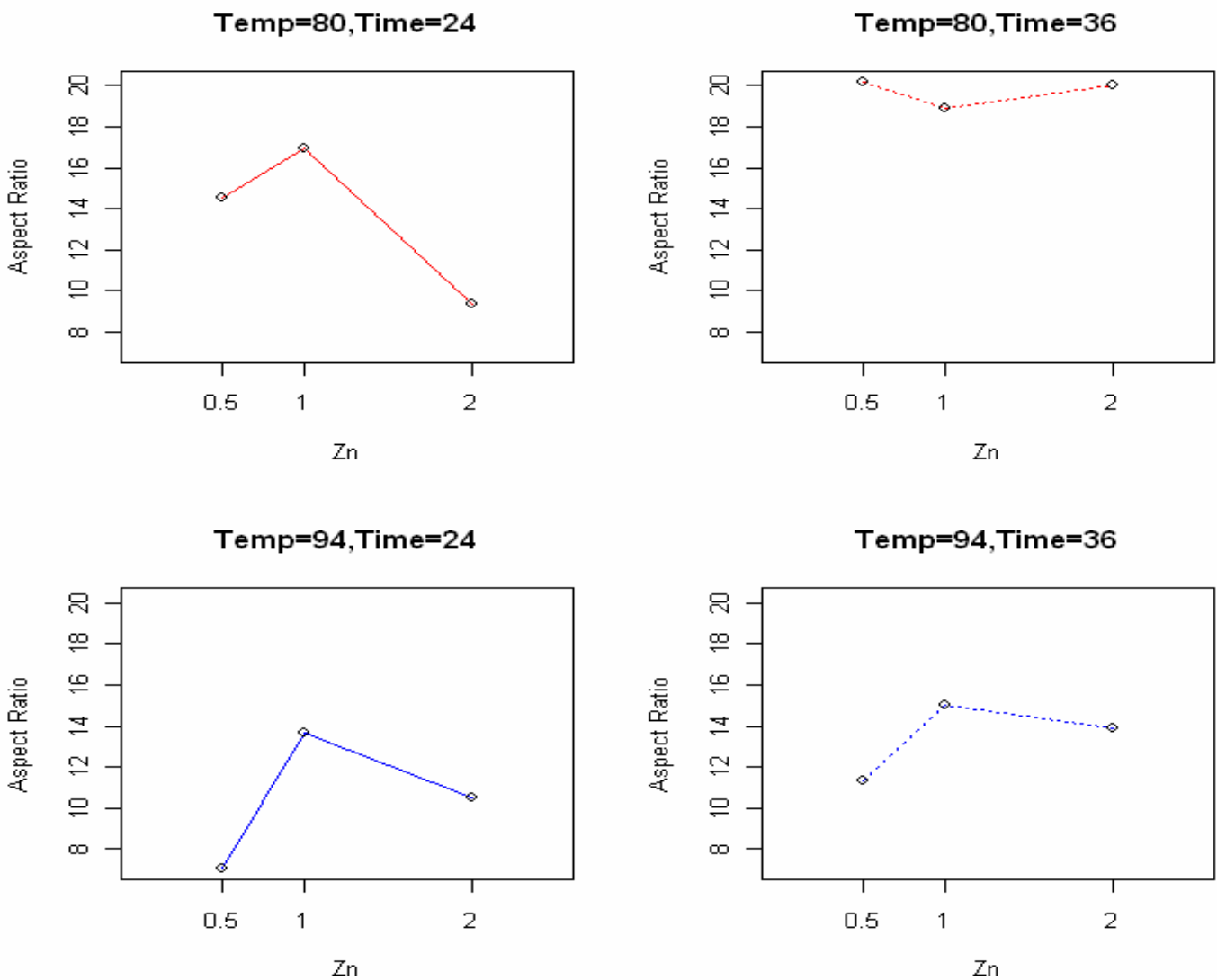


Figure S7. One-pair-at-a-time main effect analysis for Time in stage V. (Note: Red lines and blue lines correspond to temperatures of 80 °C and 94 °C, respectively. Solid lines, dotted lines and dashed lines correspond to Zn concentrations of 0.5 mM, 1 mM and 2 mM, respectively.)

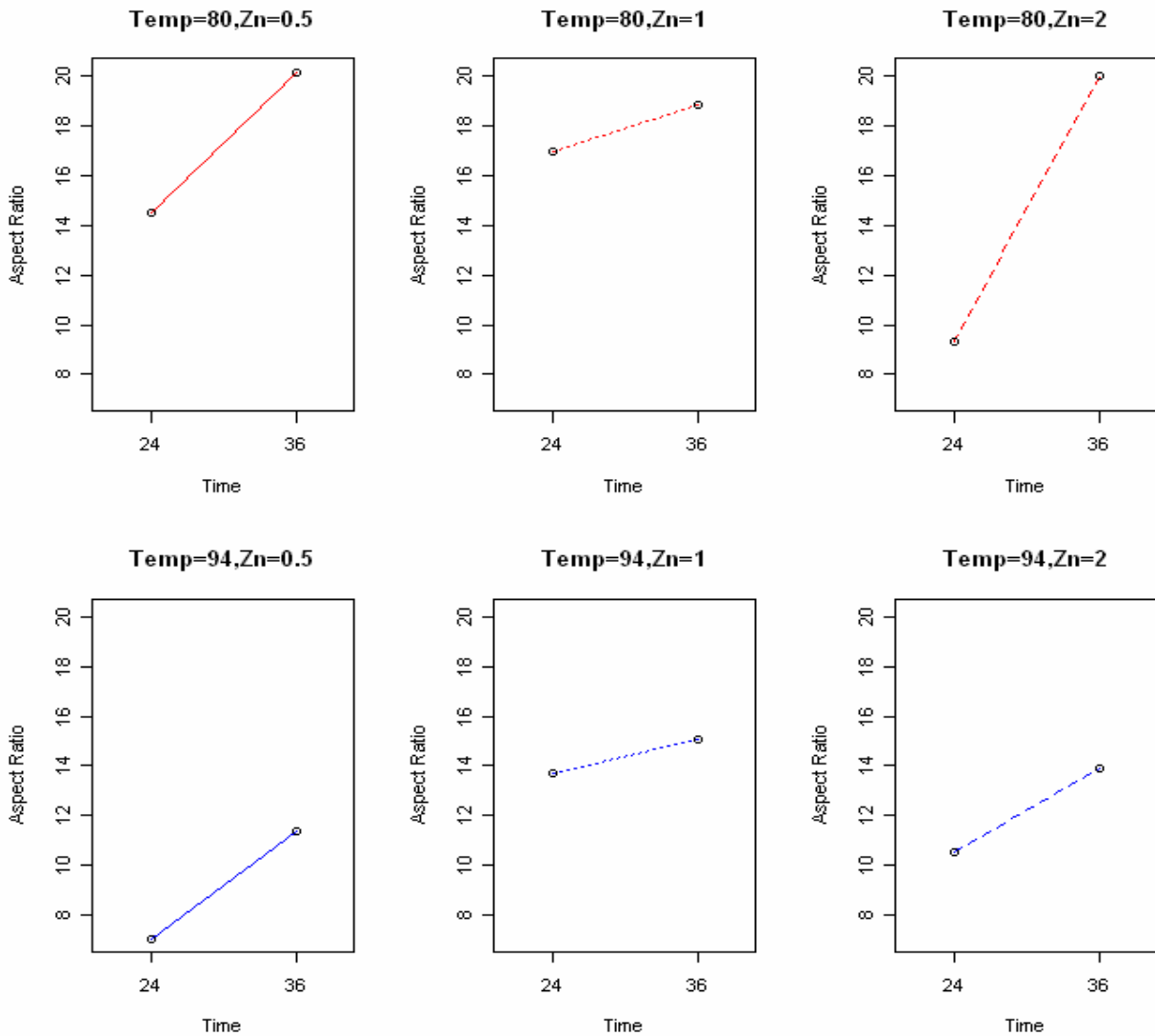
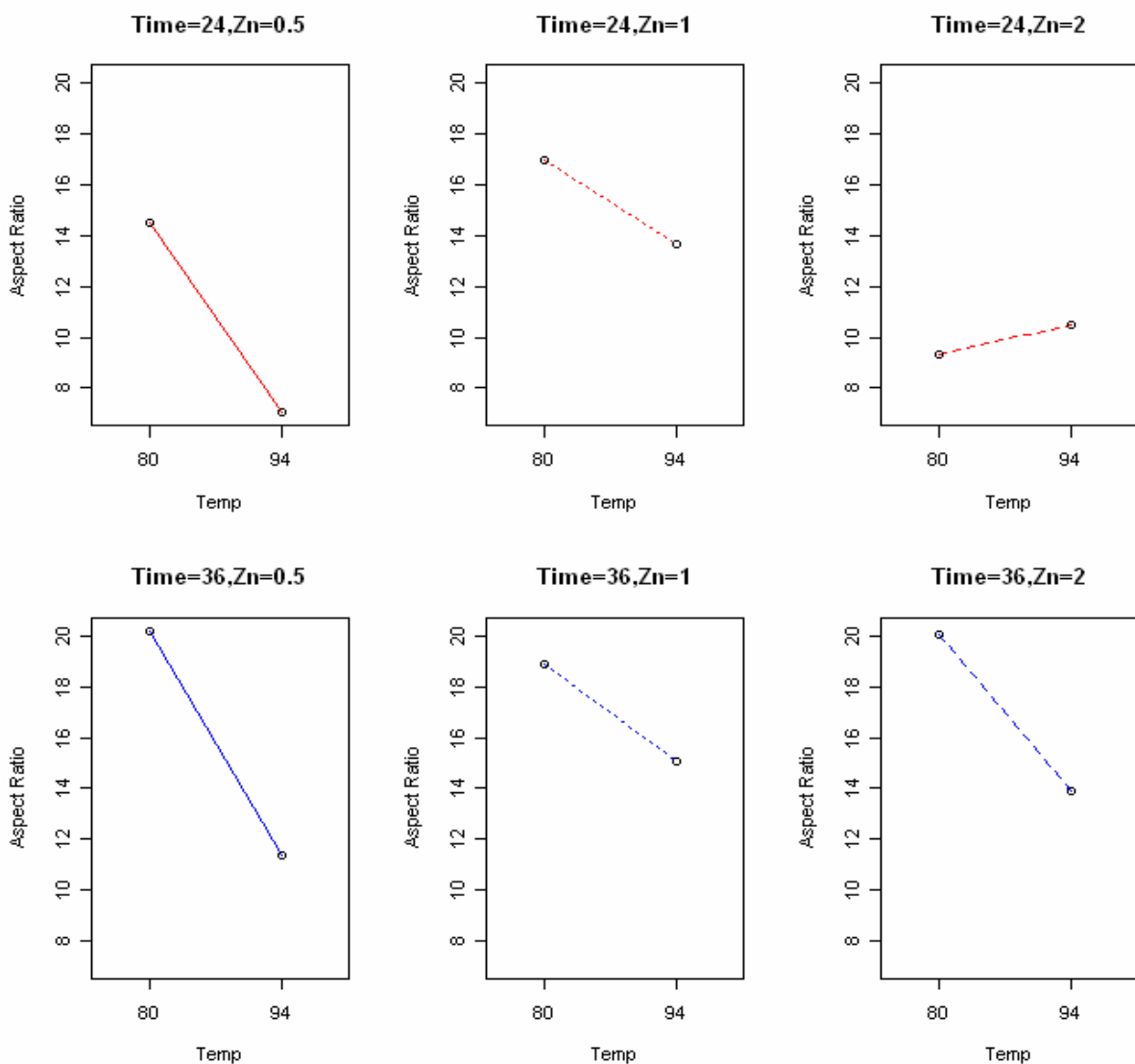




Figure S8. One-pair-at-a-time main effect analysis for Temperature in stage V. (Note: Red lines and blue lines correspond to times of 24 hours and 36 hours, respectively. Solid lines, dotted lines and dashed lines correspond to Zn concentrations of 0.5 mM, 1 mM, 2 mM, respectively.)



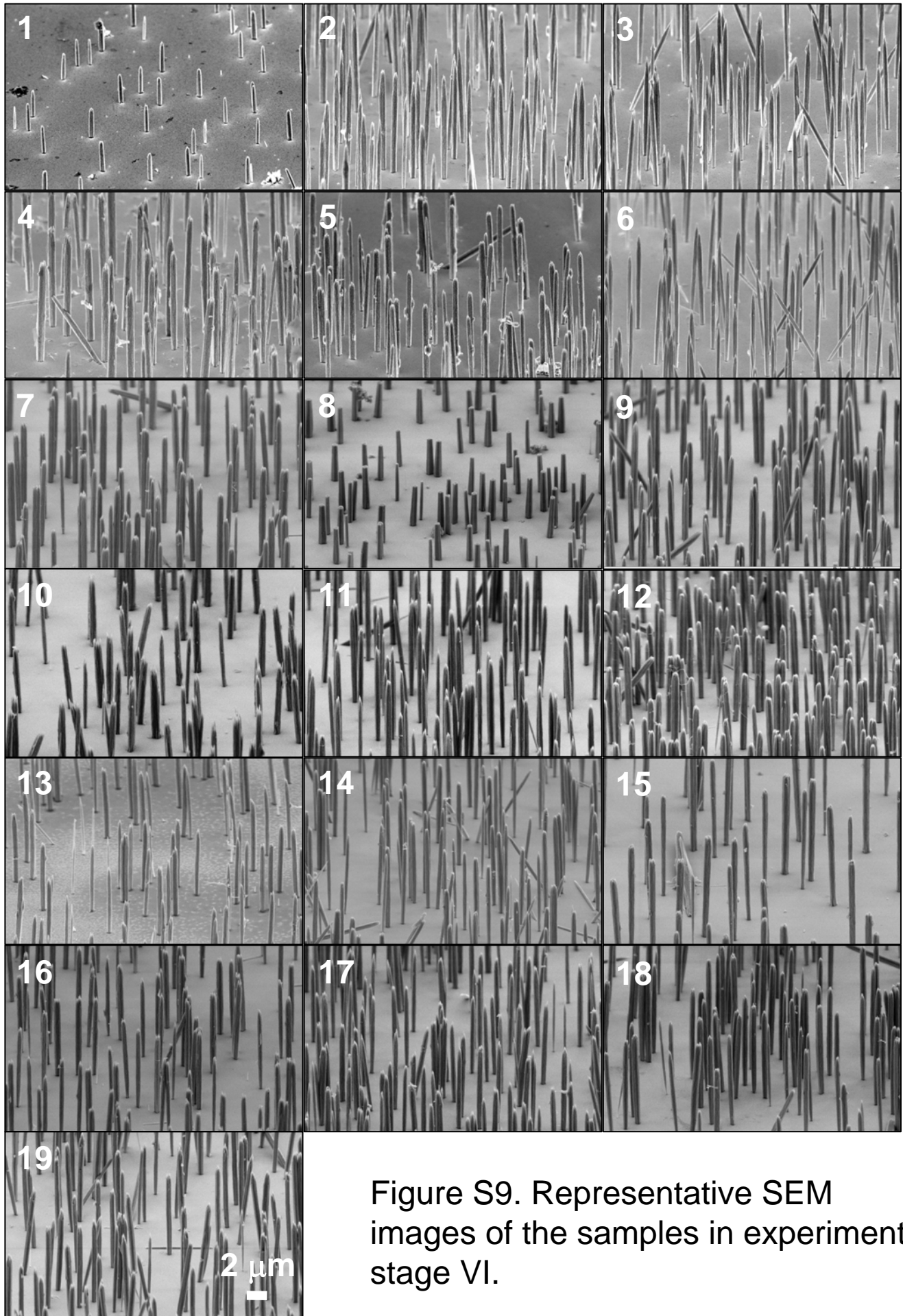


Figure S10. One-group-at-a-time main effect analysis for Zn concentration in stage VI. (Note: Red lines and blue lines correspond to times of 30 hours and 36 hours, respectively. Solid lines, dotted lines and dashed lines correspond to temperatures of 80 °C, 85 °C and 90 °C, respectively.)

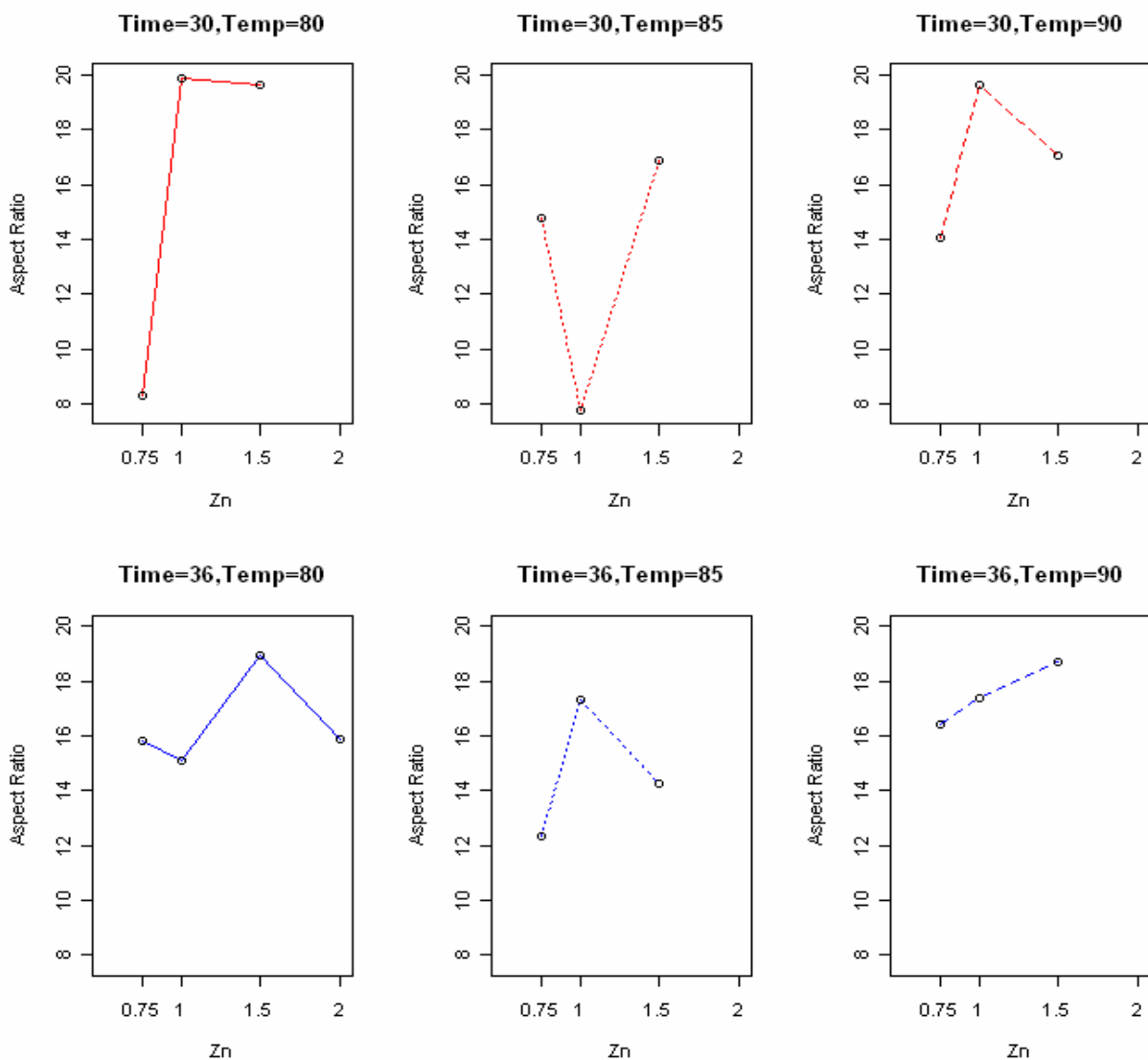


Figure S11. One-pair-at-a-time main effect analysis for Time in stage VI. (Note: Red lines, blue lines and green lines correspond to temperatures of 80 °C, 85 °C and 90 °C, respectively. Solid lines, dotted lines and dashed lines correspond to Zn concentrations of 0.75 mM, 1 mM and 1.5 mM, respectively.)

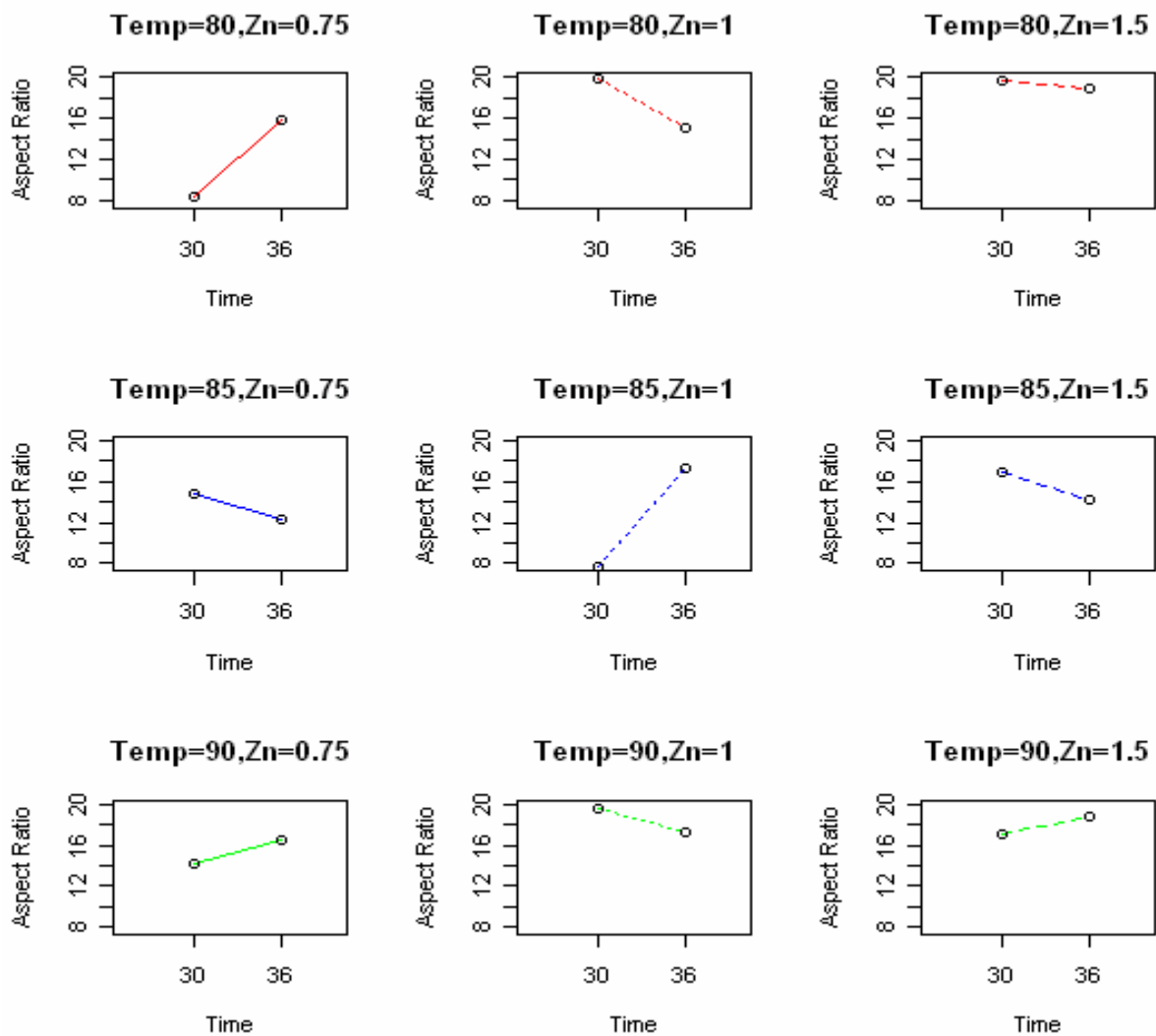
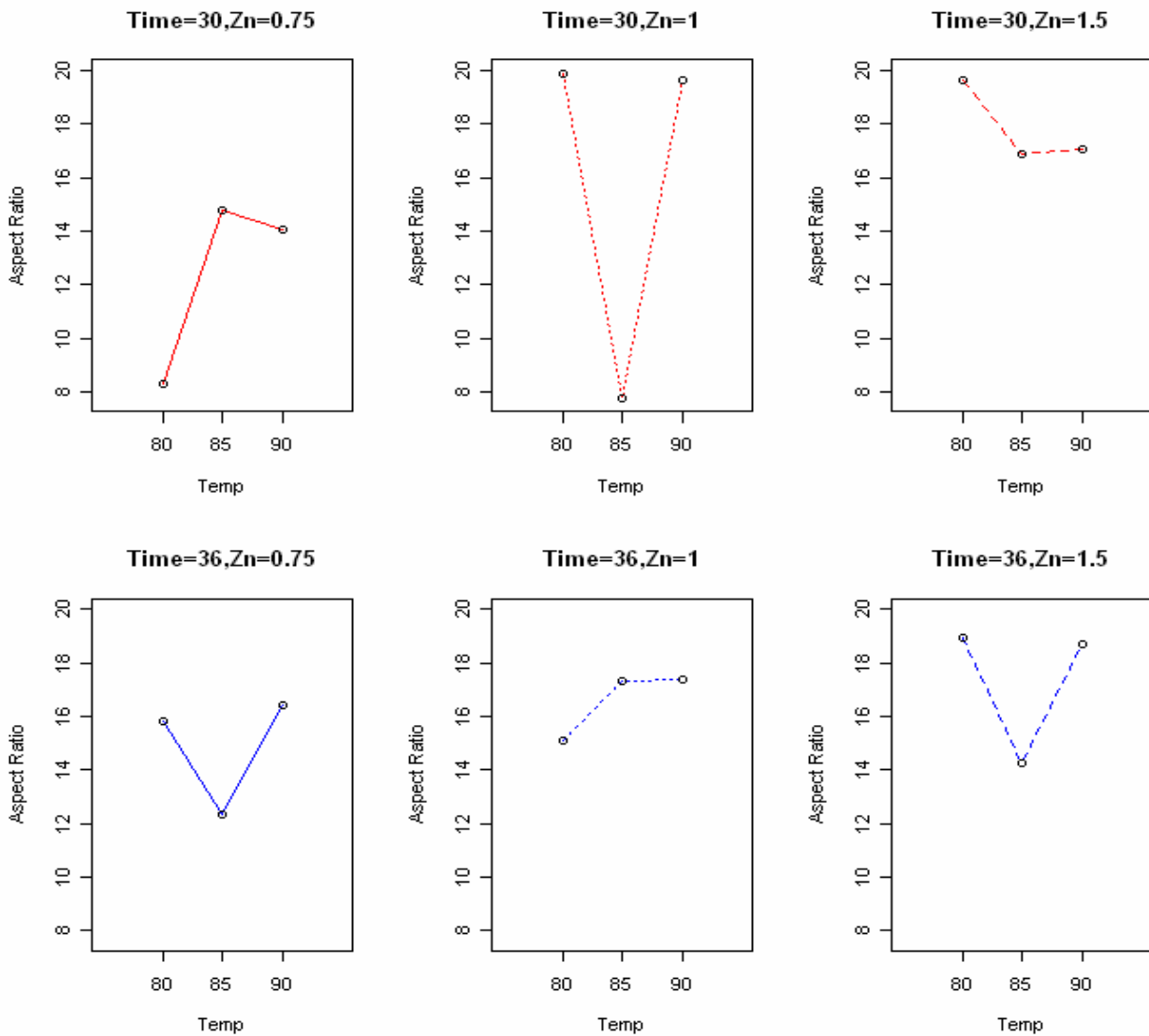


Figure S12. One-group-at-a-time main effect analysis for Temperature in stage VI. (Note: Red lines and blue lines correspond to times of 30 hours and 36 hours, respectively. Solid lines, dotted lines and dashed lines correspond to Zn concentrations of 0.75 mM, 1 mM and 1.5 mM, respectively.)



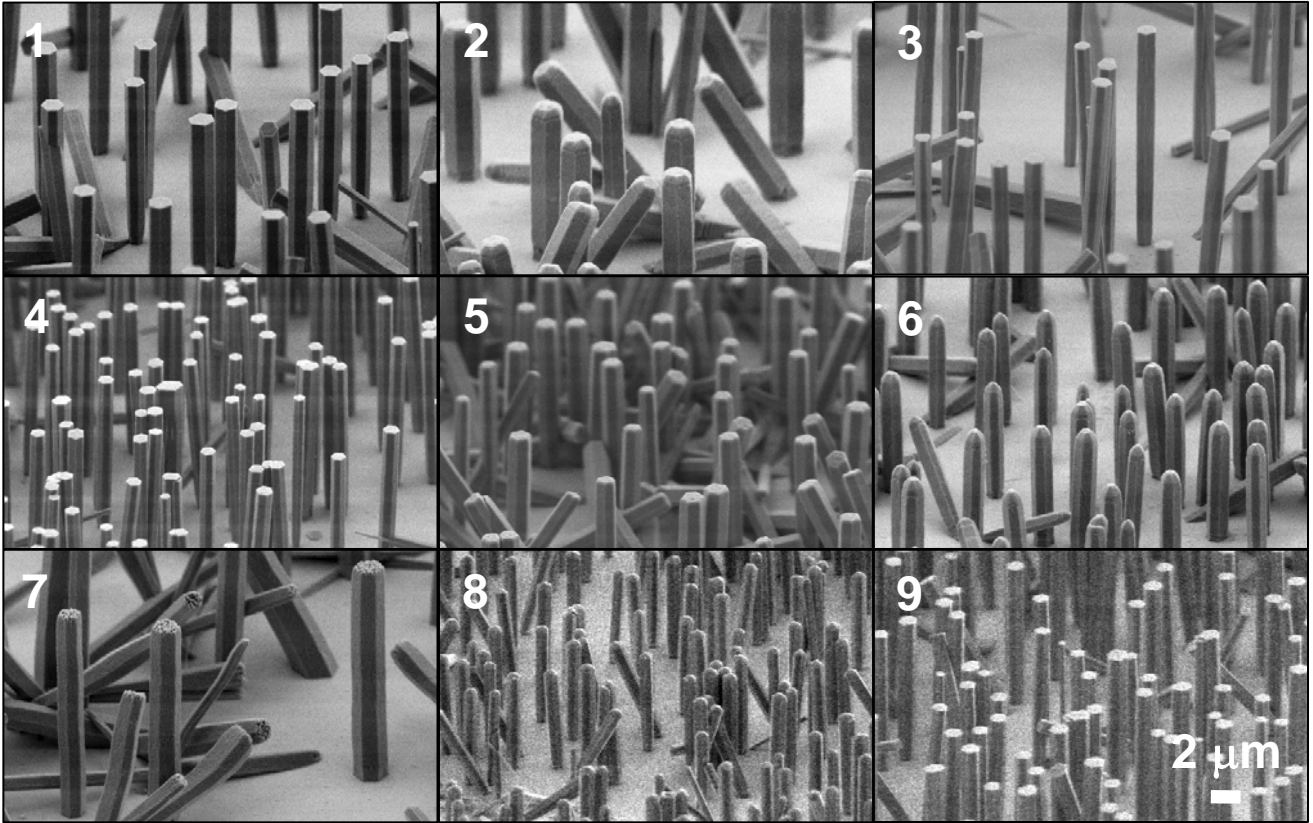


Figure S13. Representative SEM images of the samples of the first trial in experiment stage VII.

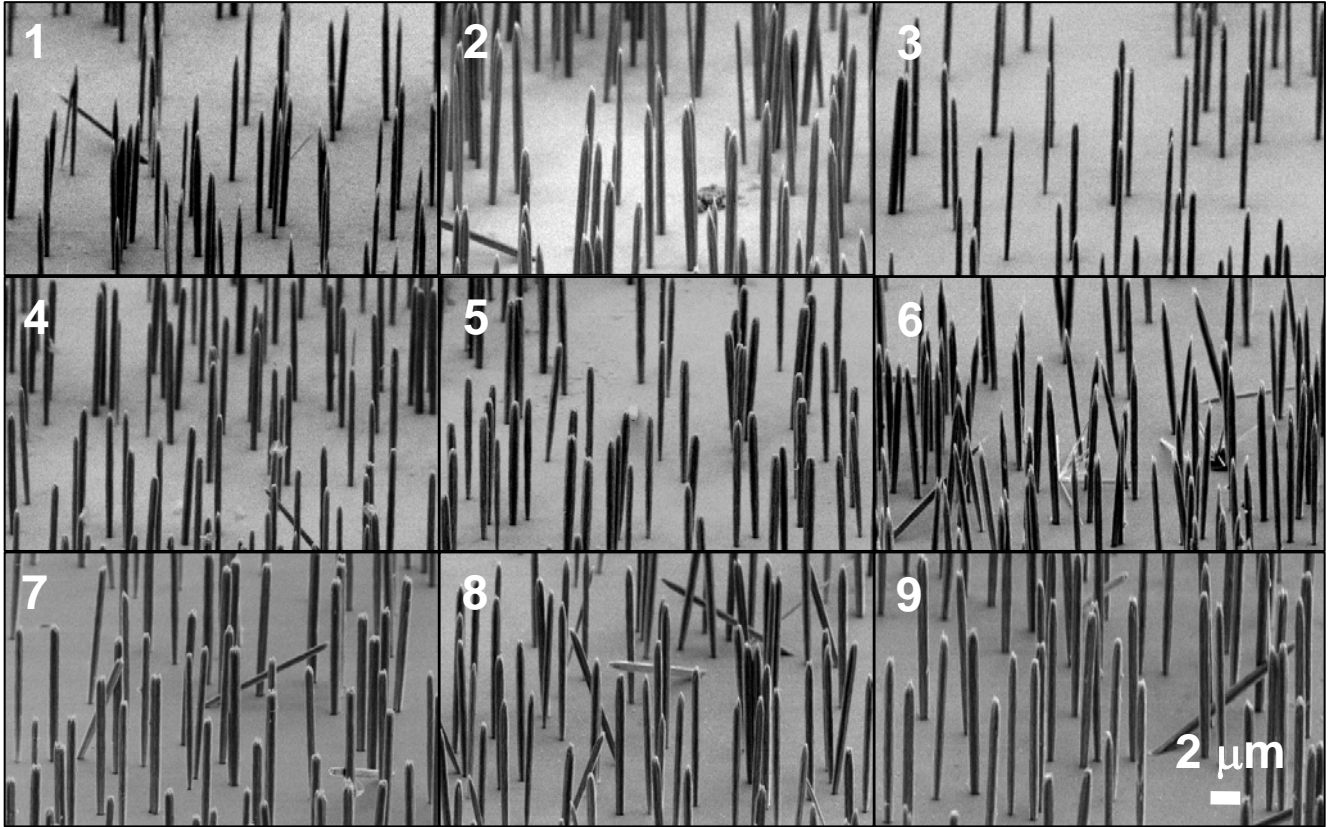


Figure S14. Representative SEM images of the samples of the second trial in experiment stage VII.

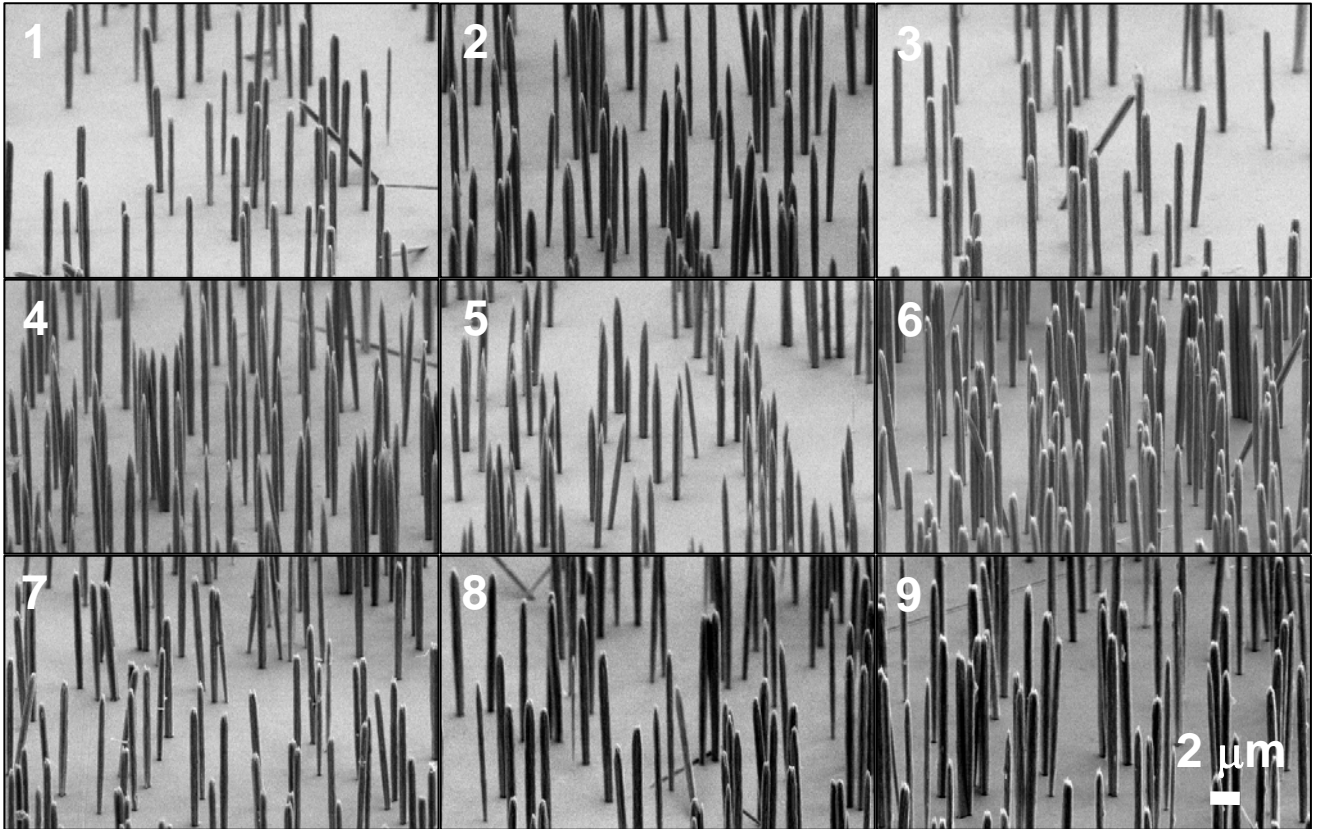


Figure S15. Representative SEM images of the samples of the third trial in experiment stage VII.