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Title: Facile fabrication of hierarchical ZnO microstructures assisted with PAMPSA and enhancement of green emission

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Highlights

- □ We report a facile single-step way to prepare hierarchical flower-like ZnO microstructures.
- □ Water-soluble polymer PAMPSA was used as a soft template and stabilizer.
- □ Shapes and sizes of ZnO products could be controlled by varying the concentrations of PAMPSA.
- □ Incorporation of a trace of PAMPSA into ZnO was confirmed by FTIR and Raman spectra.
- □ Well-defined and -dispersed ZnO microstructures with uniform shapes and sizes were obtained, and their green photoluminescence was significantly enhanced.