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# Surfactant Assisted Solvothermal Synthesis of ZnO Nanoparticles and Study of their Antimicrobial and Antioxidant Properties

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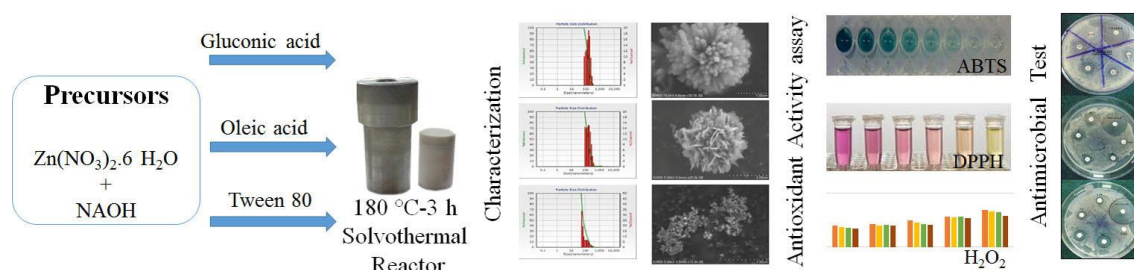
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## Graphical abstract



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This study demonstrated a solvothermal method of growth of three different morphologies of zinc oxide nanoparticles (ZnO NPs): i) flower-like nanorod and nanoflakes, ii) assembled hierarchical structure, and iii) nano granule. Oleic acid ( $\text{C}_{18}\text{H}_{34}\text{O}_2$ ), gluconic acid ( $\text{C}_6\text{H}_{12}\text{O}_7$ ) and tween 80 ( $\text{C}_{64}\text{H}_{124}\text{O}_{26}$ ) were used as surfactant/capping/reducing agent for the formation of different morphologies of

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