

Anti-tumor Efficacy of Oleuropein-loaded ZnO/Au Mesoporous Silica Nanoparticle in 5-FU-Resistant Colorectal Cancer Cells

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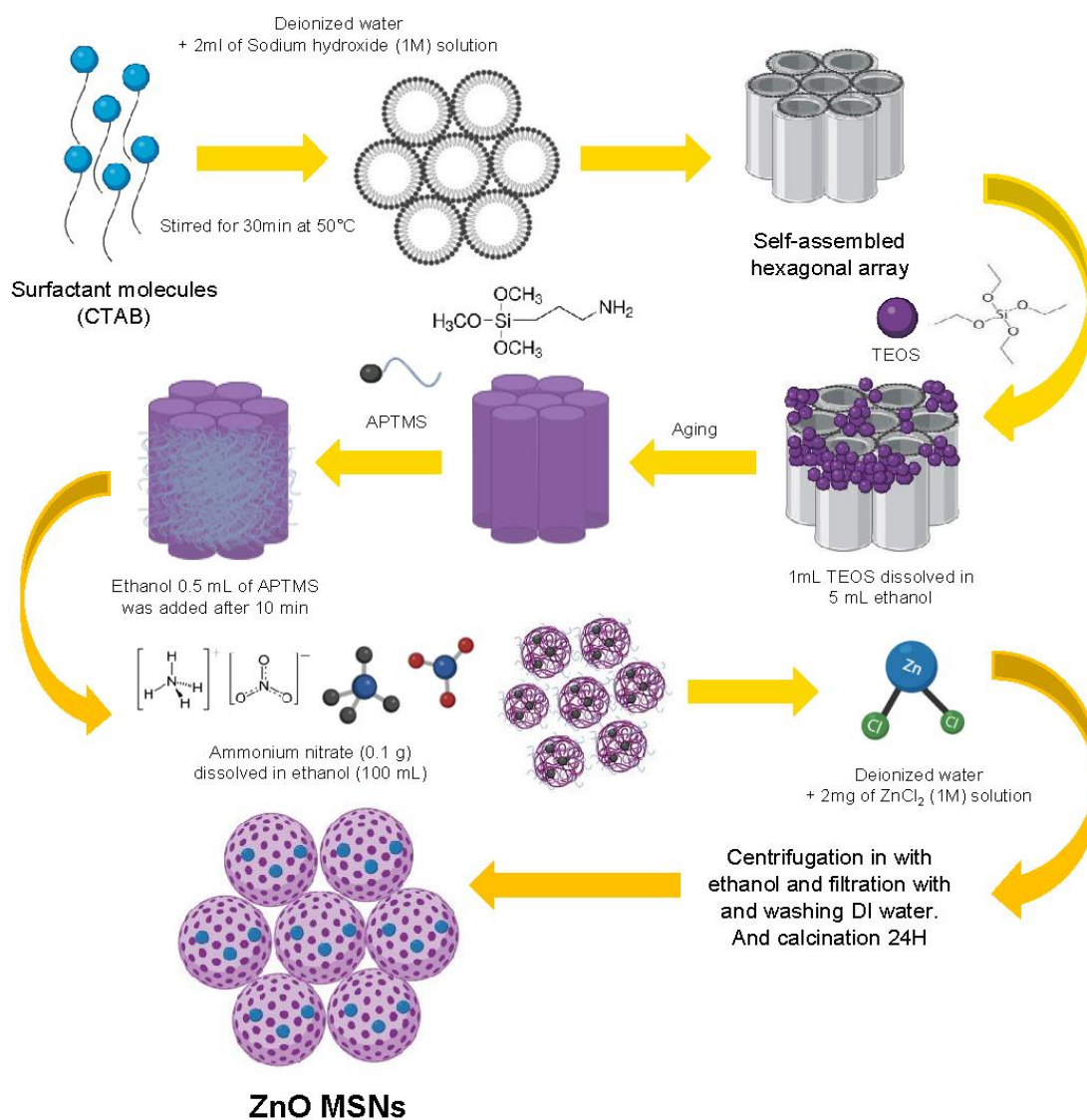
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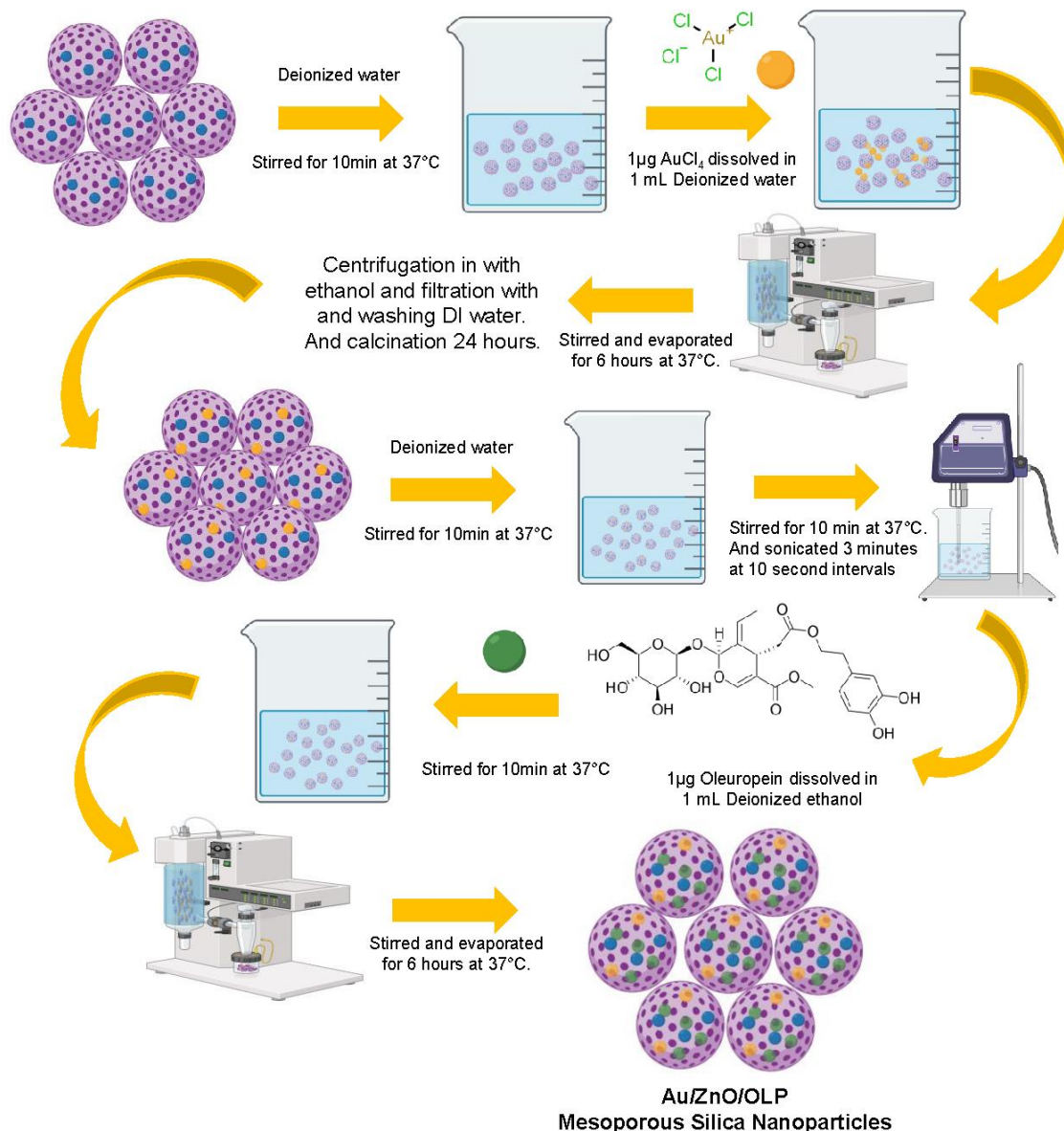
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Synthesis of ZnO Mesoporous Silica Nanoparticles



Supplementary figure 1. Synthesis of ZnO Mesoporous Silica Nanoparticles. The figure presents a schematic overview of the synthesis process for ZnO MSNs. Starting with the solubilization of CTAB in deionized water, the process involves the addition of NaOH, TEOS, and AEAPTMS leading to the formation of a white precipitate. The precipitate undergoes filtration, washing, and drying, followed by CTAB removal and zinc embedding. The final steps include rotary evaporation, centrifugation, and calcination to yield the final ZnO MSNs.

Au/OLP loading of ZnO-Mesoporous Silica Nanoparticles



Supplementary figure 2. Au/OLP Loading of ZnO-Mesoporous Silica Nanoparticles. This figure illustrates the process of loading gold (Au) and Oleuropein (OLP) onto ZnO Mesoporous Silica Nanoparticles. The diagram sequentially depicts the initial stirring of nanoparticles in deionized water, the addition of gold ions, and the subsequent evaporation process. Following this, OLP is dissolved and mixed under specific conditions, highlighting the sonication and stirring techniques employed. The final product is the Au/ZnO/OLP Mesoporous Silica Nanoparticles, showcasing the successful incorporation of Au and OLP into the ZnO matrix.