

Supplementary Information

Thermal stability of self-assembled ordered three-phase Au-BaTiO₃-ZnO nanocomposite thin films via *in situ* heating in TEM

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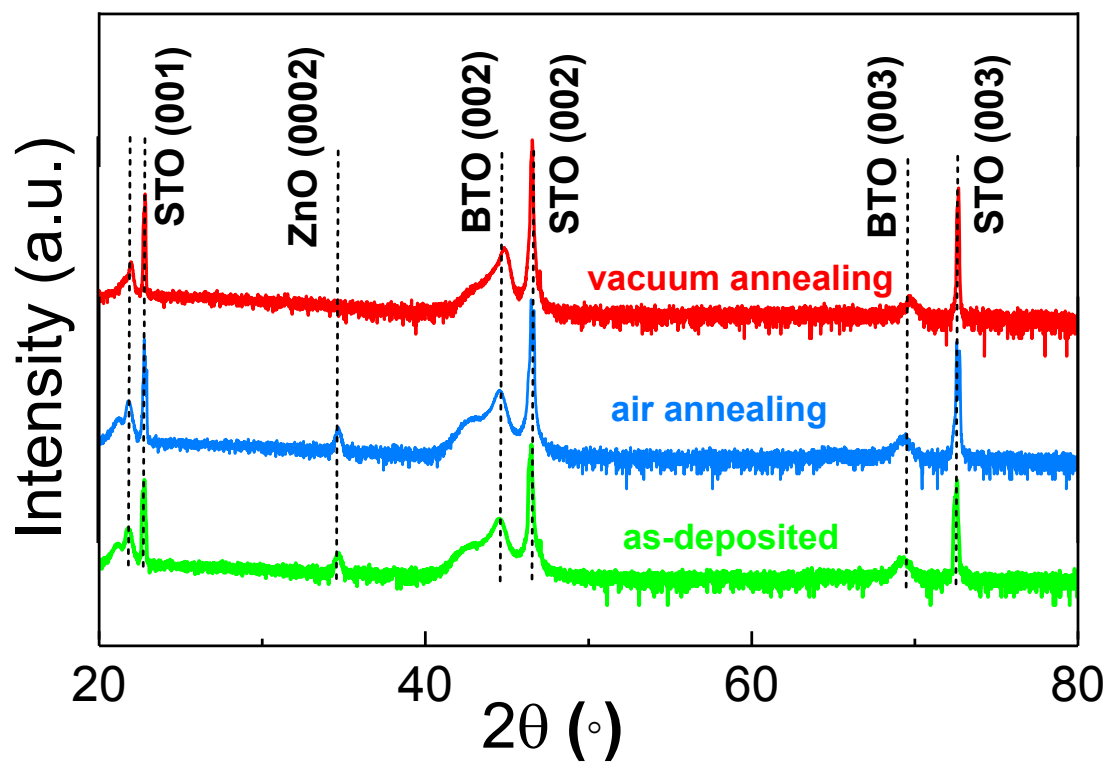


Figure S1. X-ray Diffraction. XRD plots of the as-deposited, air annealed and vacuum annealed three-phase Au-BaTiO₃-ZnO nanocomposite.

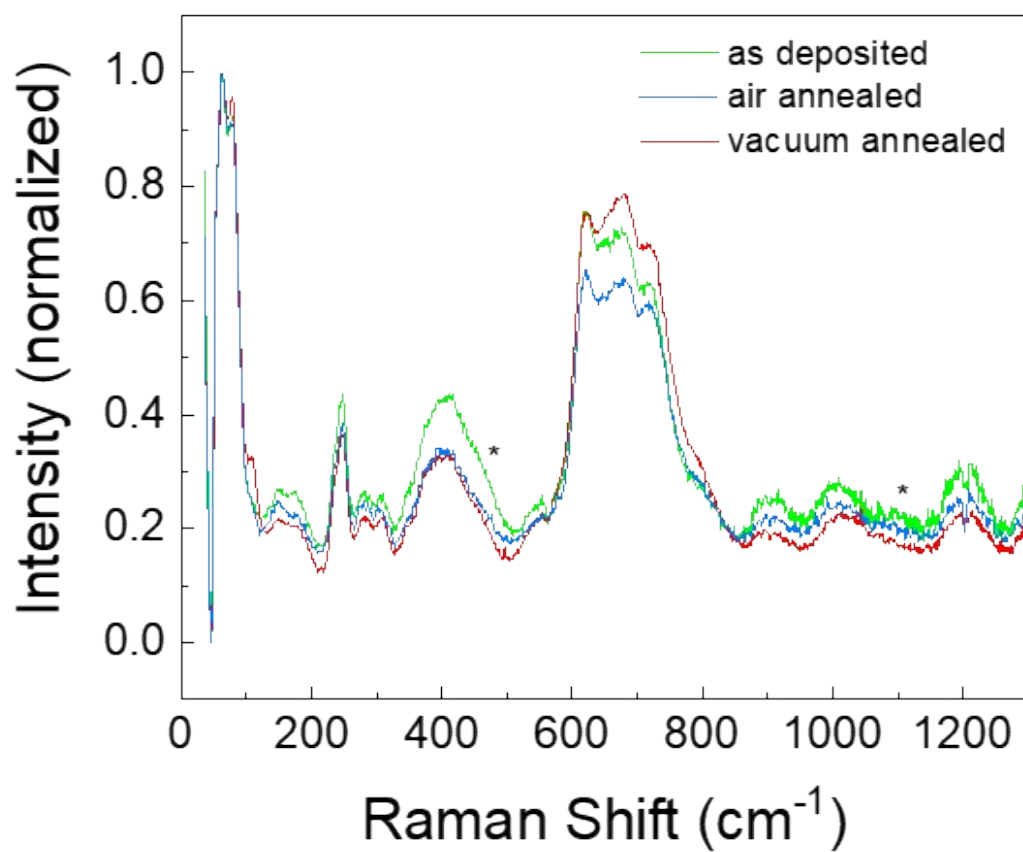


Figure S2. Raman Spectroscopy of the as-deposited, air annealed and vacuum annealed three-phase Au-BaTiO₃-ZnO nanocomposite.

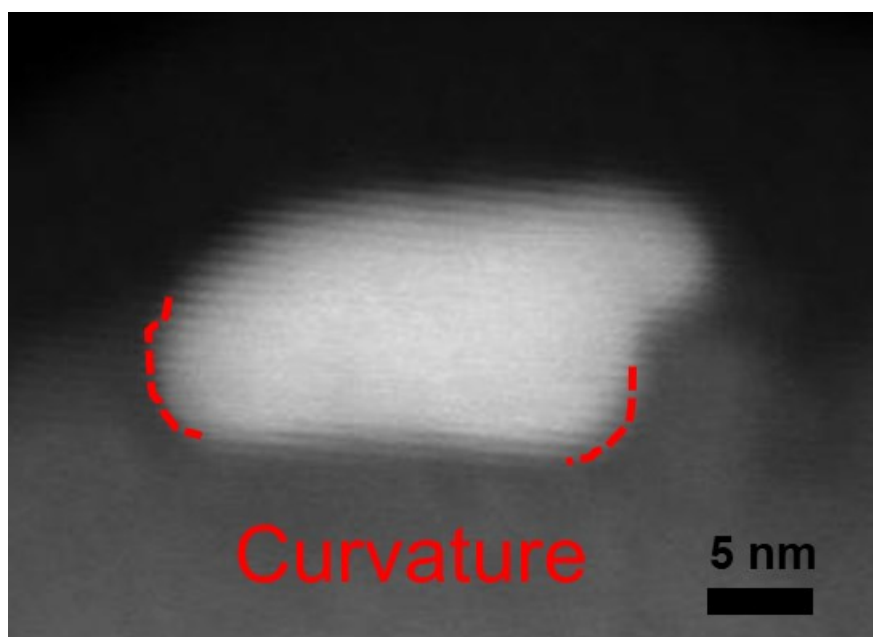


Figure S3. STEM image of the Au NP showing the curvature at room temperature

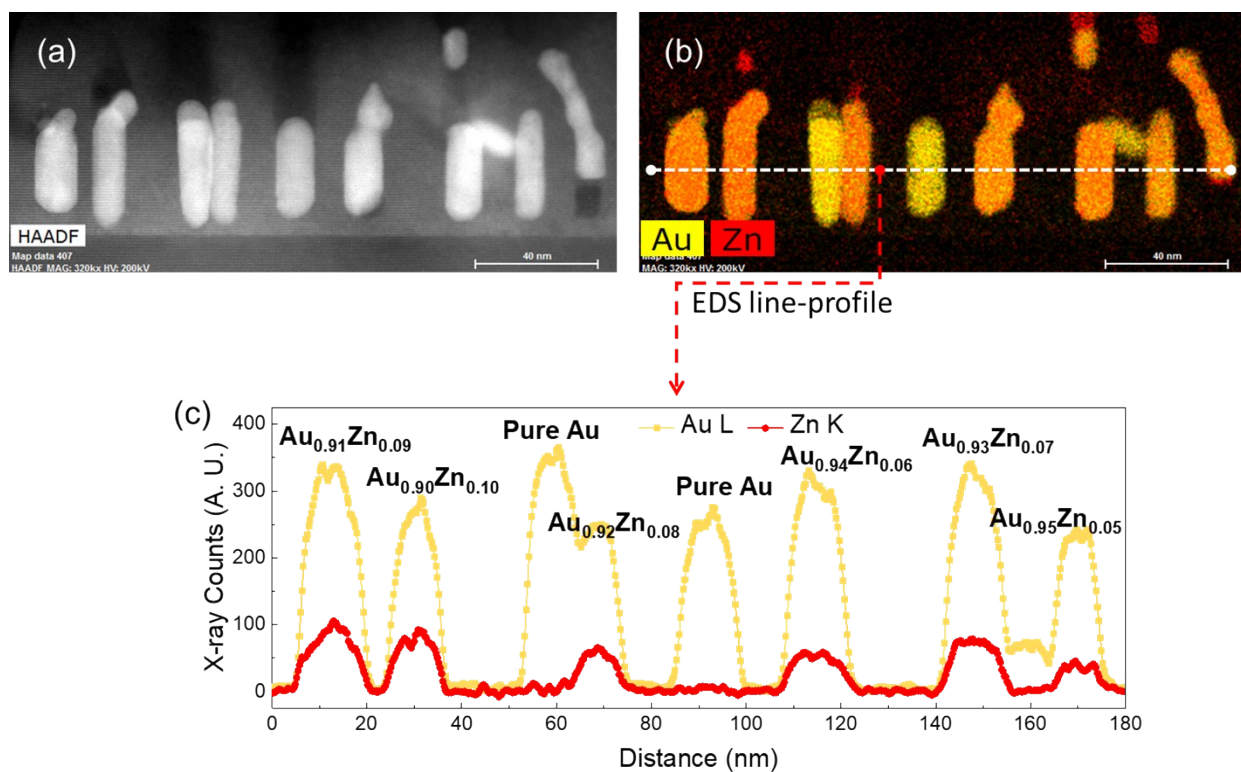


Figure S4. (a) STEM image of the vacuum annealed three-phase Au-BaTiO₃-ZnO nanocomposite, (b) its corresponding EDS map and (c) the EDS line-scan showing the pillar compositions.