

Poster Presentation

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Green synthesis and study of crystallinity of AuNps

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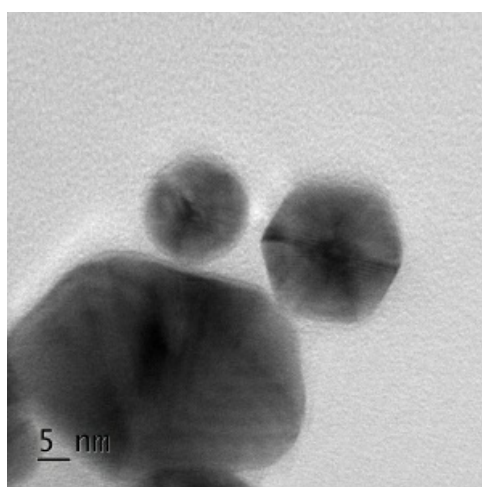
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We report a simplistic way of synthesis of gold nanoparticles using PRODUCTIVELY principles. Our one step method reveals the novel approach of the room temperature reduction of the $\text{HAuCl}_4 \cdot 3\text{H}_2\text{O}$ via the extract of red beet root waste (BRW). Characterization of the green synthesized gold nanoparticles is carried out using state of a art spectroscopic and microscopic techniques like UV Vis spectroscopy, FTIR, SEM, HR-TEM, EDS, DLS. The concentration dependent study revealed that the low concentration of BRW extract produced single crystal nanoparticles, while higher concentration results polycrystalline nanoparticles. This is the first time we are reporting the crystalline dependent study of green synthesized gold nanoparticles. Furthermore to the novelty, This work follows three out of the twelve fundamental principles of green chemistry and one out of twelve principles of green engineering

(Tang et al., 2005)

(Deokar & Ingale, 2016)

(Fleury et al., 2015)



Keywords: [AuNps](#), [Green Synthesis](#), [XRD](#)