

## CONSOLIDATION AND ORGANIZATION OF ZIRCONIUM NANO PARTICLES AND DRAGON FRUIT (HYLOCEREUS POLYRHIZUS) AND VITRO DEVELOPMENT ACTIVITIES

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### ABSTRACT

*A raw and eco-friendly method is introduced for the synthesis of zirconium nanoparticles using liquid extracts of dragon fruit extraction as a trimming and capping agent. To study the purity of the structure phase, morphology and size using various analytical methods such as uv-vis, ftir, sem xrd. the concentration of green ZrO NPS was confirmed by measuring the UV-vis spectrum of a colloidal solution with a high absorption rate of 277.8 and 348.0 nm. FTIR analysis shows that active groups (-oH, -cooH and c = o) can include the reduction and stabilization of biosynthesized zirconium nanoparticle, SEM analysis confirmed the presence of metal particles, xrd display plane shows surface Cubic structure (fcc) high levels of zirconium nanoparticles. Due to the size of the nano and the high purity, the ZrO NPS made of grass has shown anti-inflammatory activity in vitro.*

**KEY NOTES:** - Nanoparticles, Anti-Inflammatory, Dragon Fruit, Scanner Electron Microscope

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