



FORMULATION AND EVALUATION OF HERBAL DRUG LOADED SOLID LIPID NANOPARTICLES

Poster No. 01

Author details - 36-48 pt

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Title - 72-100 pt

ABSTRACT 40-48 pt

Diabetes mellitus often leads to oxidative stress, chronic inflammation, and progressive neurological complications. Curcumin, a natural antioxidant and anti-inflammatory compound, offers therapeutic benefits but suffers from poor solubility, rapid degradation, and limited penetration across the blood-brain barrier (BBB).

Provide a brief abstract that summarizes the objectives, methods, key results, and conclusions of your study. This should be about 150-250 words.

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METHOD & METHODOLOGY Section headings: 40-48 pt

- Mechanical milling: A high-energy process that uses ball milling to reduce particle size.
- Physical vapor deposition (PVD): Materials are vaporized and then condensed onto a substrate, creating nanoparticles.
- Laser ablation: A high-power laser beam is used to ablate a target material, producing nanoparticles

Use diagrams or bullet points to describe the methodology, ensuring it is detailed enough to explain the process but concise for readability.

Visual aids such as flowcharts are encouraged.

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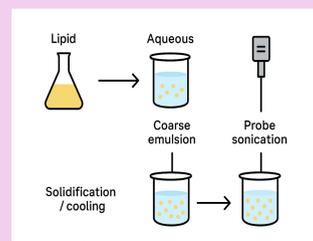


Figure 2. Method of preparation of Nanoparticle

INTRODUCTION 40-48 pt

Background
 Rationale
 Objectives

Present the introduction with background information on your research, stating objectives and the rationale.

Keep the introduction concise and use bullet points for clarity

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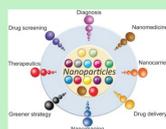


Figure 1. Uses of Nanoparticle

Captions: 24-28 pt

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RESULTS 40-48 pt

*Sem results showed that the particle

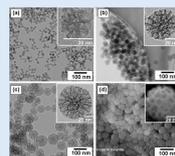


Figure 3. SEM results of Nanoparticle

*Present your findings using high resolution graphs, tables, and figures. Label each figure clearly (e.g., Figure 1, Figure 2, Table 1, Table 2) and include descriptive captions.

*Ensure all visuals are easy to read from a distance and professionally formatted.

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Table 1. Results of Nanoparticle Characterization

Parameter	Observation	Interpretation
Particle Size (nm)	150-220 nm (Mean =)	Ideal for skin penetration and sustained release
Polydispersity Index (PDI)	0.20-0.35	Indicates uniform particle size distribution
Zeta Potential (mV)	-20 to -35 mV	Good colloidal stability, low aggregation
Encapsulation Efficiency (%)	70-92%	High drug loading efficiency

DISCUSSION 40-48 pt

*The nanoparticle formulation was successfully developed with optimal physicochemical characteristics.
 *Ionic gelation proved to be a simple, reproducible, and scalable technique for loading both hydrophilic and hydrophobic actives.

*Interpret your findings in this section, linking them back to your research objectives. Highlight the significance of your results.

*Use concise paragraphs or bullet points.

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CONCLUSION 40-48 pt

The nanoparticle formulation was successfully developed with optimal physicochemical characteristics. Ionic gelation proved to be a simple, reproducible, and scalable technique for loading both hydrophilic and hydrophobic actives. The nanoparticles demonstrated high encapsulation efficiency and controlled drug release behavior. Morphological and functional evaluations confirmed the suitability of the nanoparticles for targeted topical delivery.

Provide a concise summary of your main findings and include any recommendations or future directions for your research.

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REFERENCES 40-48 pt

1. Khan I, Saeed K, Khan I. Nanoparticles: Properties, applications and toxicities. Arabian journal of chemistry. 2019 Nov 1;12(7):908-31.
2. Patil AA. Nanoparticles: properties, applications and toxicities. International Journal of Innovative Science, Engineering and Technology. 2020;8(5).
3. Singh AK. Engineered nanoparticles: structure, properties and mechanisms of toxicity. Academic Press; 2015 Nov 24.

Include a references section for any key citations (Max 3 References). References: 20-24 pt

ACKNOWLEDGEMENTS 40-48 pt

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