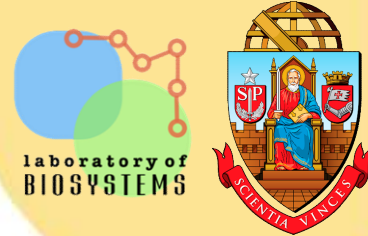


Factorial Study of Cubic Nanostructures Formulations and Structural Characterization

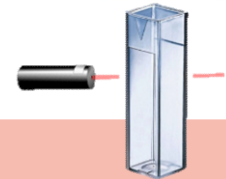


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Objectives

Cubosomes are potential carriers to be used in nanomedicine to increase the effectiveness of diagnostic agents and drugs, including anticancer, antimicrobial and antiviral agents. They stand out by the great structural advantage of encapsulating both highly hydrophobic molecules and hydrophilic molecules. A challenge for the production of this nanoparticle is the lack of certainty about its quality, therefore, a factorial study was carried out to establish the best conditions for the production of samples, through structural characterization of cubosomes using the Dynamic Light Scattering (DLS).

Methods

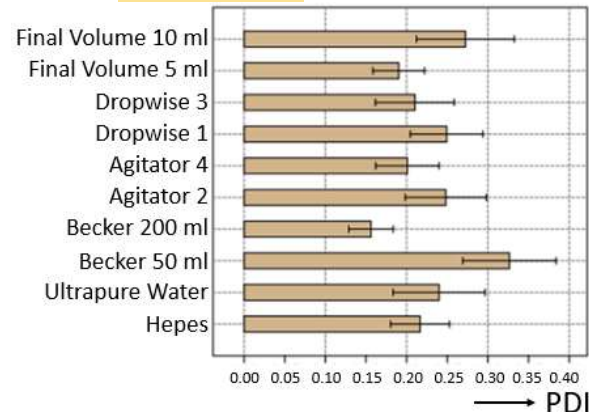


Factorial Study

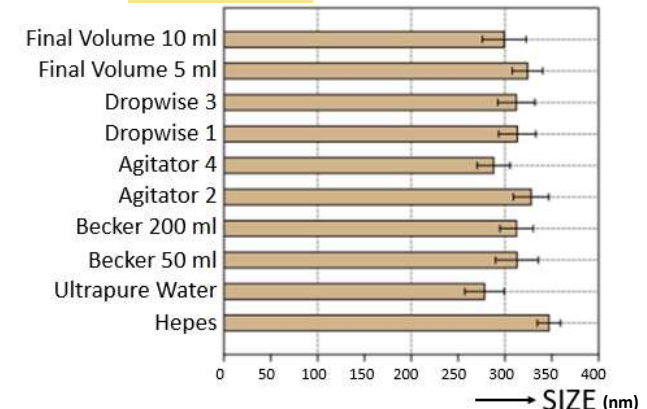


Results

Results by factors



Results by factors



Conclusions

The production process directly interferes with the final results of size and polydispersion index. However, to obtain a smaller size and more homogeneous samples, it is necessary to produce samples in a Becker with a volume much larger than the final sample volume, or work with reduced sample volumes. In addition, higher agitation speeds associated with slow dripping and ultrapure water solvent are great assistants in the process.

Acknowledgments

