Schematic illustration of how the preparation of NLCs ensued.
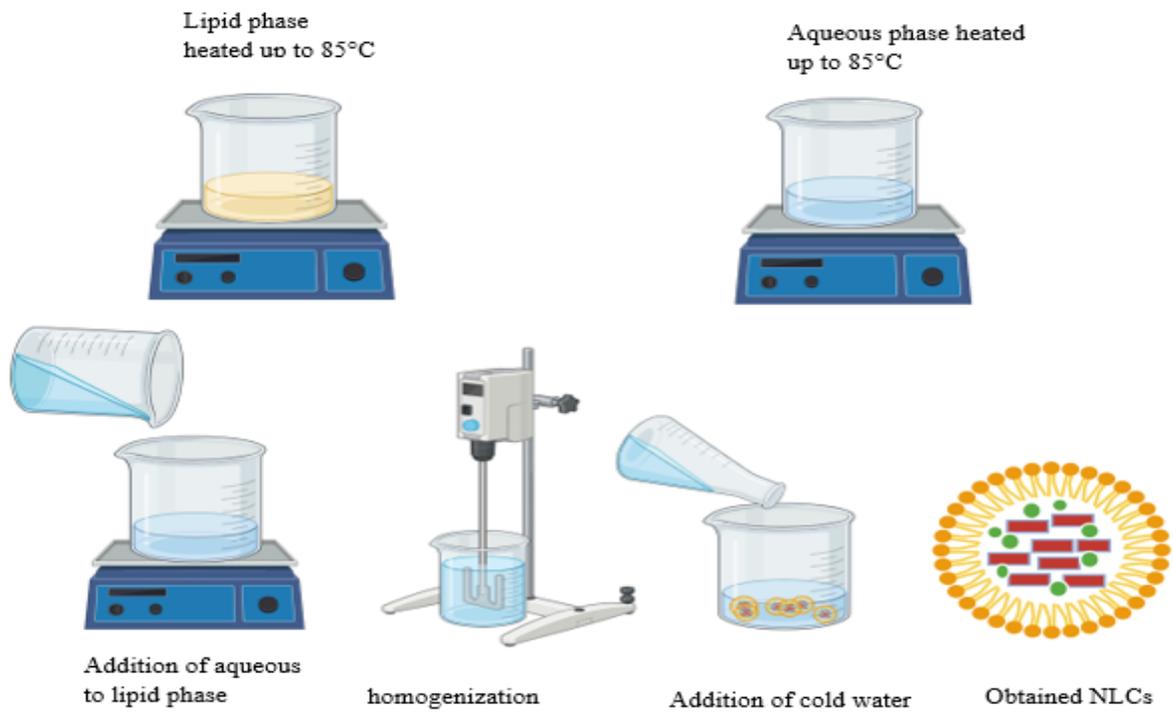

Figure S1: Preparative illustration of NLCs. Prepared via BioRender.

One factor plot for impact of variables on the Particle size
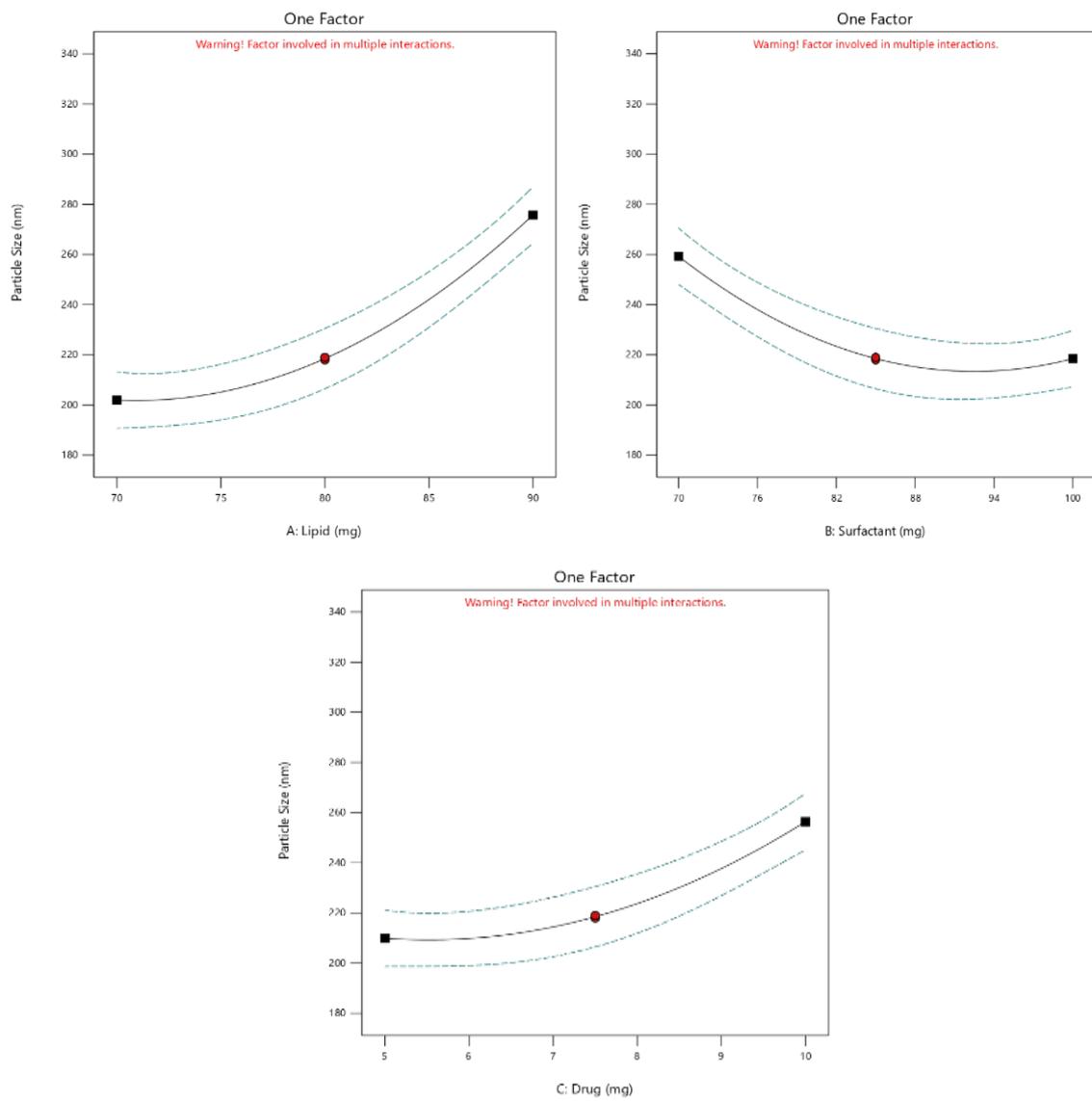

Figure S2. Impact of A. Lipids, B. Surfactant and C. Drug on Particle size (nm).

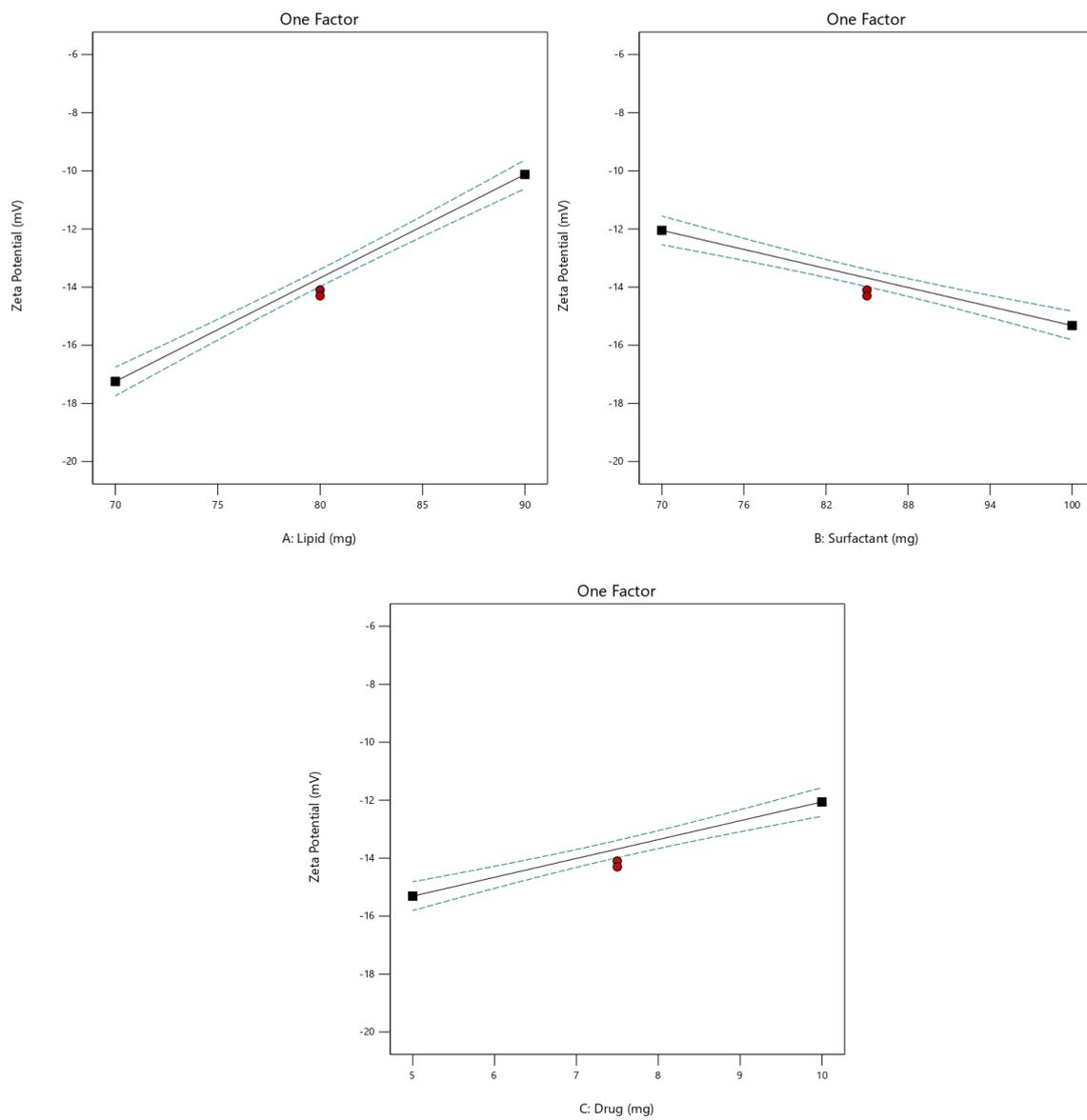## One factor plot for impact of variables on the Zeta Potential

Figure S3. Impact of A. Lipids, B. Surfactant and C. Drug on the Zeta Potential (mV).

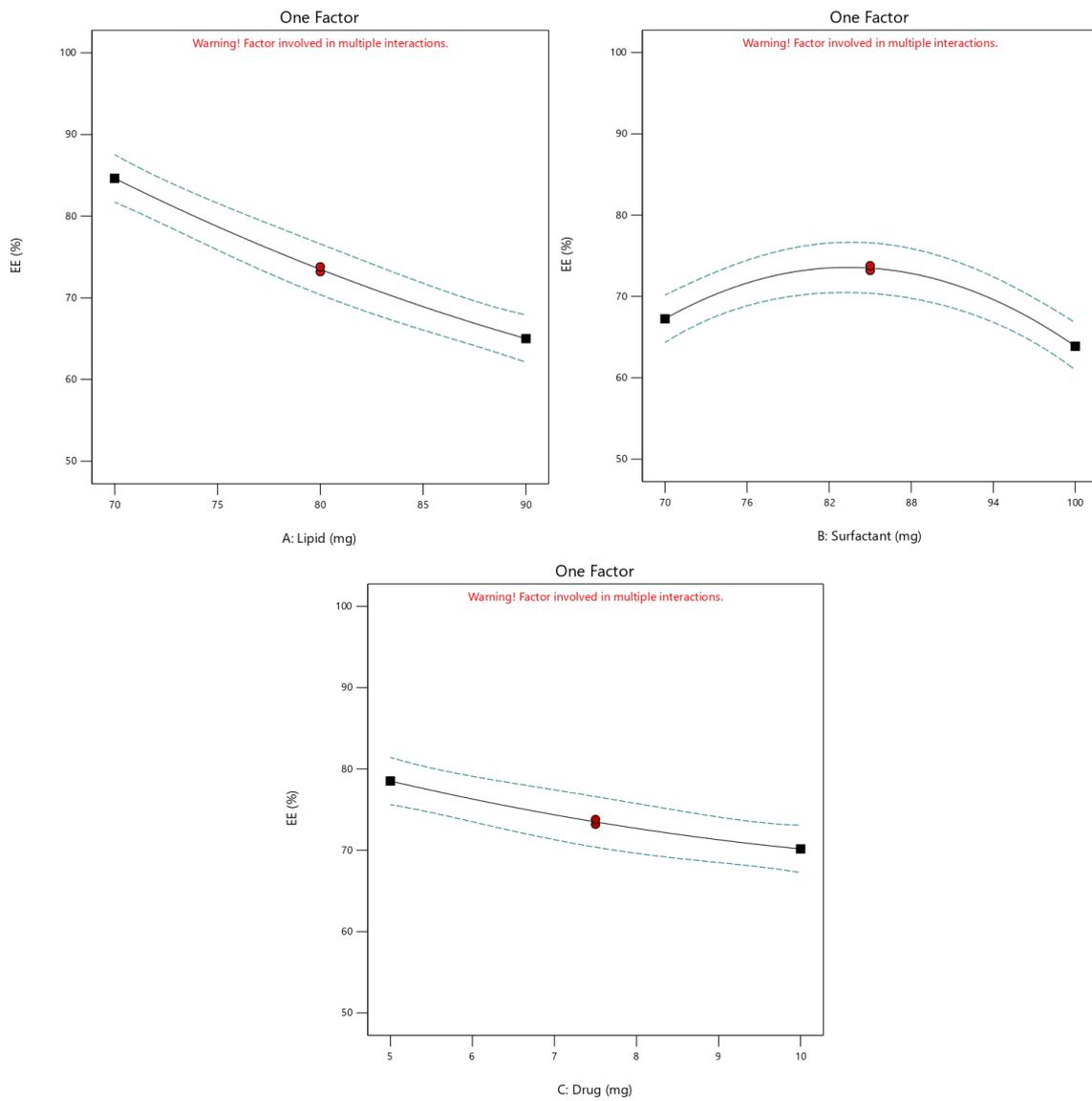## *One factor plot for impact of variables on Entrapment efficiency*

Figure S4. Impact of A. Lipid, B. Surfactant and C. Drug on Entrapment efficiency (%EE)

Kinetics models with R² value

Table S1. Kinetic Models with R2 values (TNZ NLCs)

Models	Models R^2 values for TNZ NLCs	
Zero order	0.6447	
First order	0.8859	
Higuchi	0.9892	
Korsmeyer-Peppas	R^2	0.9918
	Diffusion exponent (n)	0.462 (fickian release)
Hixon-Crowell	0.8252	