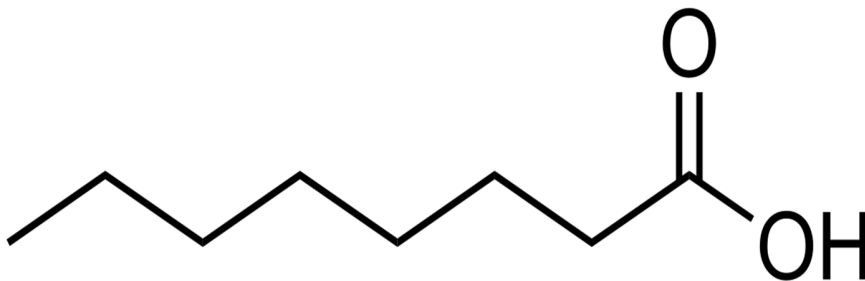
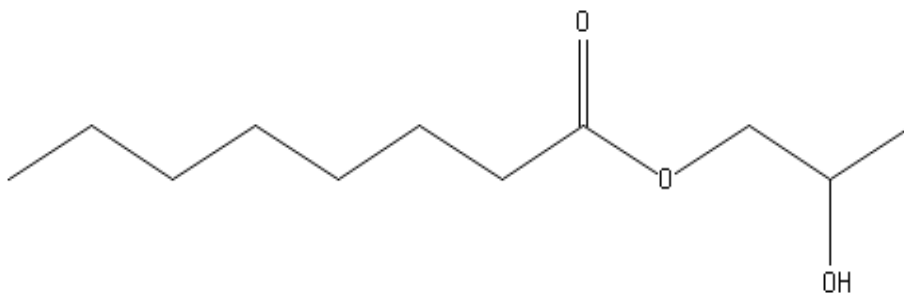


Octanoic acid (Caprylic acid) is a saturated fatty acid with the molecular formula: $C_8H_{16}O_2$, and a molecular weight of 144.21. It consists of an 8-carbon backbone and imparts low lipophilicity.



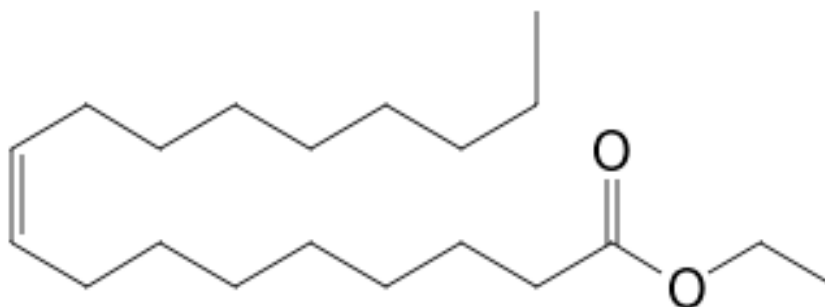
(Octanoic acid)

Capryol 90 (1,2-Propylene glycol 1-caprylate) with the molecular formula: $C_{11}H_{22}O_3$, and molecular weight of 202.29. Its molecule consists of an 11-carbon atoms and imparts medium lipophilicity with an HLB value of 5.



(Capryol 90)

Ethyl oleate is a fatty acid ester with the molecular formula: $C_{20}H_{38}O_2$, and a molecular weight of 310.51. It consists of an 18-carbon fatty acid of carbon chain length and imparts high lipophilicity.



(Ethyl oleate)

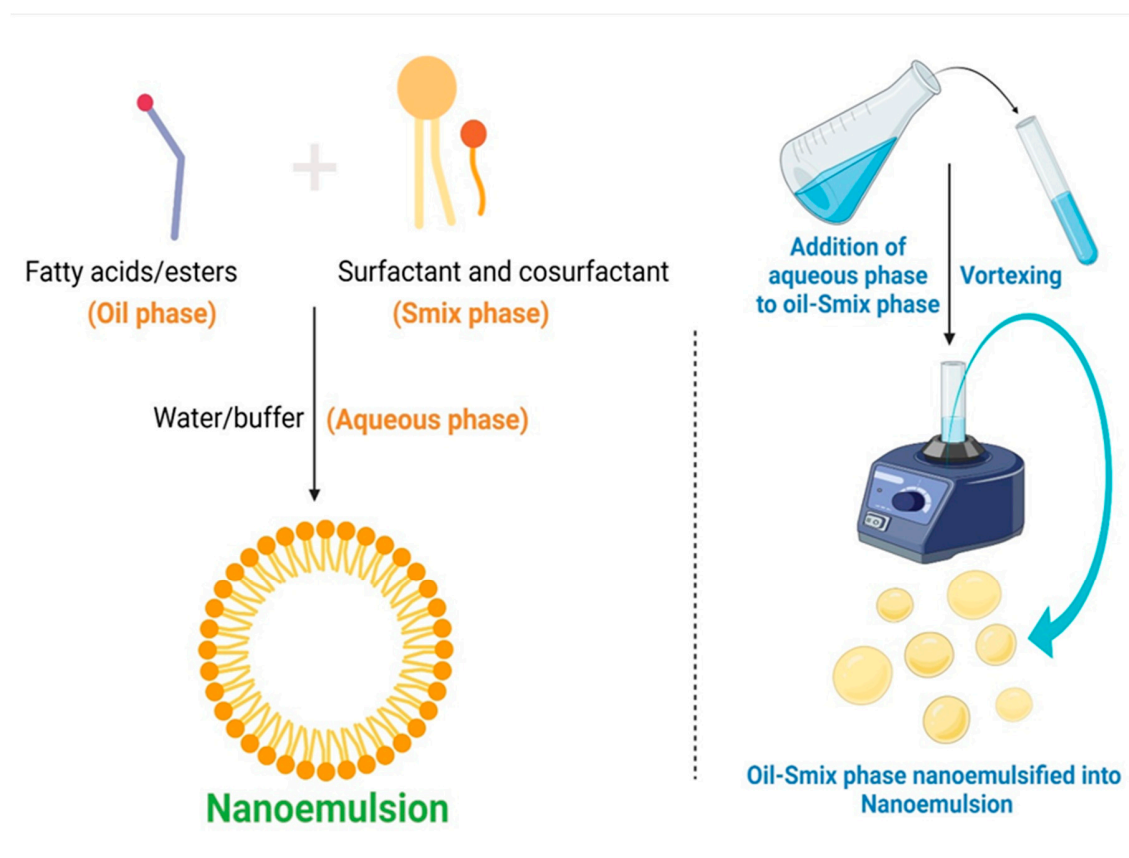


Figure S1. Schematic illustration presenting formation of nanoemulsion utilizing spontaneous emulsification method.

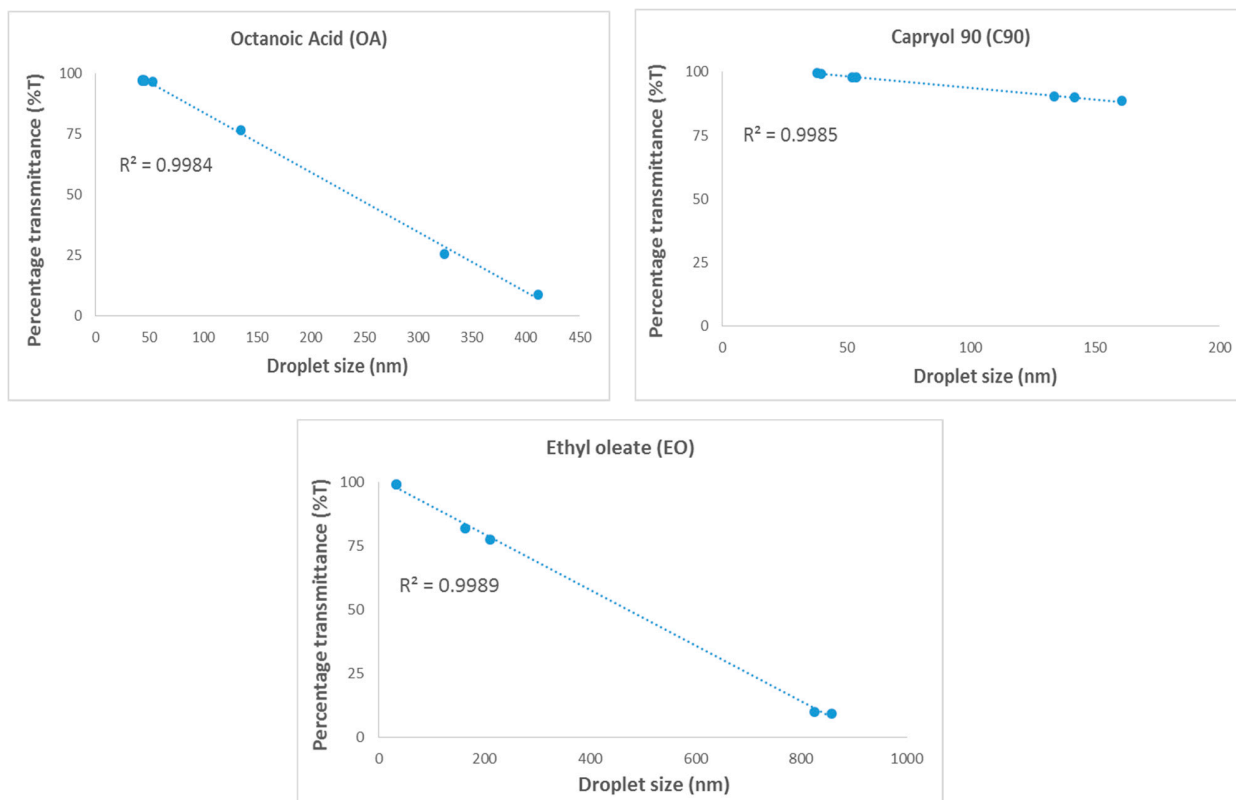


Figure S2. Correlation between %T and mean droplet size of NE system consisting of octanoic acid, capryol 90, and ethyl oleate as oil phase.

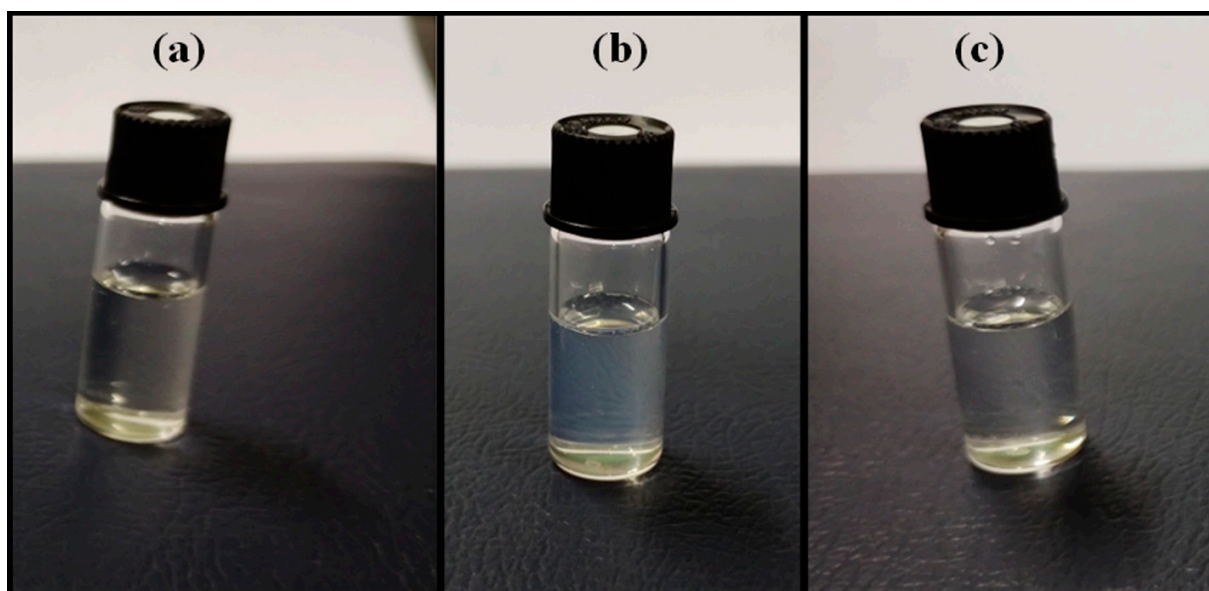


Figure S3. Optimized composition of nanoemulsion prepared through drop-by-drop mixing of aqueous phase to oil-Smix phase (a) NE system composed of OA as oil having 300 μ l oil, 900 μ l Smix phase, and 800 μ l water, (b) NE system composed of C90 as oil having 300 μ l oil, 900 μ l Smix phase, and 800 μ l water, (c) NE system composed of EO as oil having 300 μ l oil, 900 μ l Smix phase, and 800 μ l water.