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Curcumin Loaded Nano-Emulgel as a Drug Carrier Having Potent Antioxidant Activity

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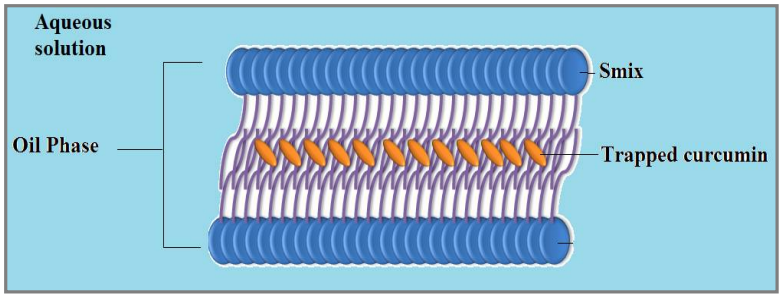
ABSTRACT

Curcumin has less water solubility property hence possess depressed bioavailability. Curcumin has good antioxidant activity. The enhancement in antioxidant activity of curcumin was achieved by nano-emulgel formulation of curcumin. Nanoformulation of curcumin was prepared by using sonication method. The Micelles were found to have least possible droplet size in homogeneously suspended form in nanoemulgel formulation. The nano-emulgel of curcumin was capable to disperse in water in the presence of surfactants. Chemical structure of curcumin retains after its Nanoformulation in the form its stable emulsion. The curcumin in well suspended condition in the nano size micelles shows potent antioxidant activity. The remarkable achievement of this method was improvement in antioxidant properties of curcumin.

Graphical Abstract



Keywords: Curcumin, Nano-emulsion, Nano-emulgel, Antioxidant activity.