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## E-BABE- Preparation, characterization and stability of silver sulfadiazine nanoliposomes

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Malaria is a worldwide life-threatening disease. Silver sulfadiazine (AgSD) is a common antibacterial and antimalarial drug. Several factors were studied to test the stability of AgSD and AgSD nanoliposomes (AgSD NLSs). These factors are heat, UV exposure, and pH. In addition, the release profile of the two formulations was studied. The results showed that sunlight affected both AgSD and AgSD NLS in all their pH formulations. In addition, the in vitro dissolution indicates a similar release profile for both AgSD and AgSD NLSs. Thus, these formulations should be kept at room temperature to avoid degradation. We can conclude that the incorporation of AgSD into nanoliposomes did not affect its stability or release profile. Thus, the in vitro characteristics of AgSD NLS and AgSD are similar. More in vivo studies are needed to test the drug's antimalarial and antibacterial efficacy and bioavailability.

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