The study of interactions of azaphthalocyanines with unilamellar liposomes II.

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Abstract:

The way of incorporation of azaphthalocyanines (AzaPc) into unilamellar liposomes prepared by extrusion technique (LUVETs) was studied. LUVETs were prepared from dioleoylphosphatidylcholine multilamellar vesicles. As AzaPcs, we used three zinc complexes with bulky substituents: P2-1Zn and P2-1Zn-Et^+ both with hydrophobic properties and water-soluble P2-4Zn-Et^+. The binding constants of AzaPc in LUVETs were calculated from measured fluorescent spectra. Amount of AzaPc incorporated in LUVETs were found from extinction coefficients (calculated from UV-vis spectra). P2-1Zn and P2-1Zn-Et^+ were incorporated into LUVETs in high concentration. P2-4Zn-Et^+ was not incorporated successfully. AzaPc amount incorporated into LUVETs is depend on aggregation. AzaPc with substituents in structure like *tert*-butyl are suitable for incorporation into vesicles, because of the bulky substituents prevent aggregation.