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Lipid bilayer interactions of Eu(III) tris- β -diketonato coordination complex

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ABSTRACT

Membrane-associating and bilayer-modifying properties of Eu(III) tris- β -diketonato coordination compound (LC) displaying anti-tumor activity were evaluated using absorption and fluorescence spectroscopy techniques. Quantifying the lipid-induced changes in LC absorbance in terms of partitioning formalism yielded the partition coefficient of $(6.7 \pm 1.4) \times 10^3$. Examination of LC effect on the structural state of PC bilayer with fluorescent probe pyrene revealed the ability of europium complex to increase membrane free volume, supposedly associated with bilayer disordering and increased rate of *trans-gauche* isomerization of acyl chains.

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