

Mitochondria-targeted cationic liposomes modified with alkyltriphenylphosphonium bromides loaded with hydrophilic drugs: preparation, cytotoxicity and colocalization assay

Darya A. Kuznetsova^a, Gulnara A. Gaynanova^a, Leysan A. Vasileva^{a,b}, Guzel V. Sibgatullina^c, Dmitry V. Samigullin^c, Anastasiia S. Sapunova^a, Alexandra D. Voloshina^a, Irina V. Galkina^d, Konstantin A. Petrov^{a,d}, Lucia Ya. Zakharova^{a,*}

^a*Arbuzov Institute of Organic and Physical Chemistry, FRC Kazan Scientific Center of RAS, 8 Arbuzov str., 420088, Kazan, Russian Federation*

^b*Kazan National Research Technological University, 68 Karl Marx str., 420015, Kazan, Russian Federation*

^c*Kazan Institute of Biochemistry and Biophysics, FRC Kazan Scientific Center of RAS, 2/31 Lobachevski str., 420111, Kazan, Russian Federation*

^d*Kazan Federal University, 18 Kremlyovskaya str., 420008, Kazan, Russian Federation*

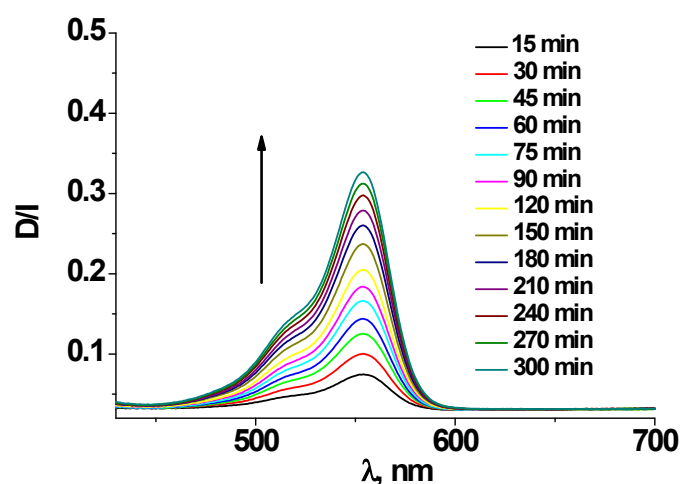


Fig. S1. UV-Vis spectra of Rhodamine B released using the dialysis bag method from **TPPB-9/DPPC** modified liposomes at molar ratio surfactant/lipid 0.04:1, phosphate buffer (0.025 M), pH = 7.4, 37°C.

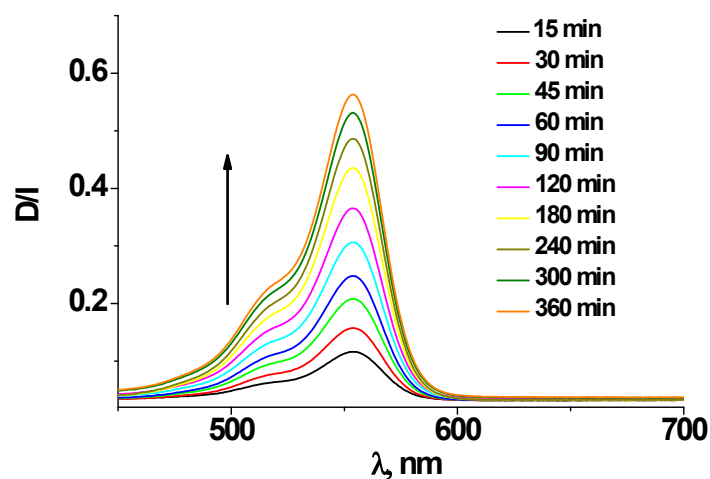


Fig. S2. UV-Vis spectra of Rhodamine B released using the dialysis bag method from **TPPB-12**/DPPC modified liposomes at molar ratio surfactant/lipid 0.04:1, phosphate buffer (0.025 M), pH = 7.4, 37°C.

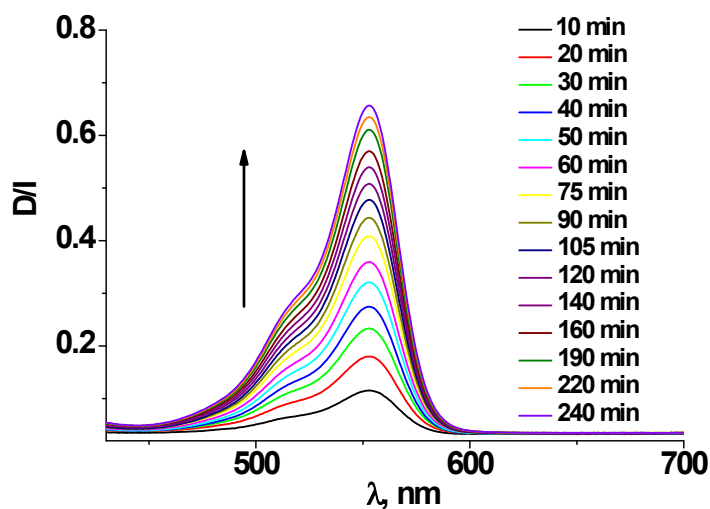


Fig. S3. UV-Vis spectra of Rhodamine B released using the dialysis bag method from **TPPB-14**/DPPC modified liposomes at molar ratio surfactant/lipid 0.04:1, phosphate buffer (0.025 M), pH = 7.4, 37°C.

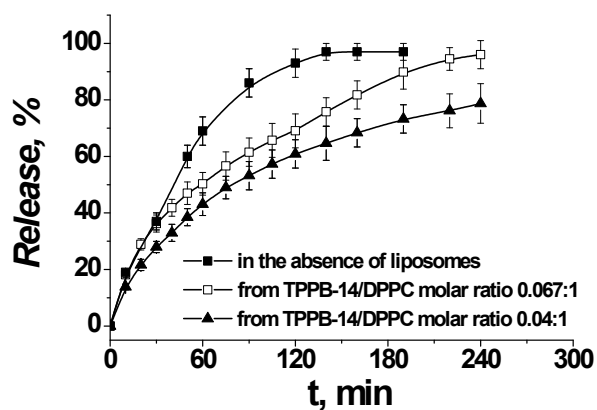
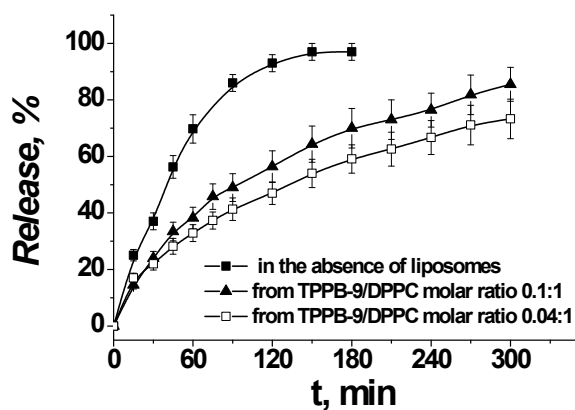


Fig. S4. *In vitro* Rhodamine B release from mixed liposomes using the dialysis bag method (n = 3) at different molar ratio of components: a) TPPB-9/DPPC; b) TPPB-14/DPPC, phosphate buffer (0.025 M), pH = 7.4, 37°C.

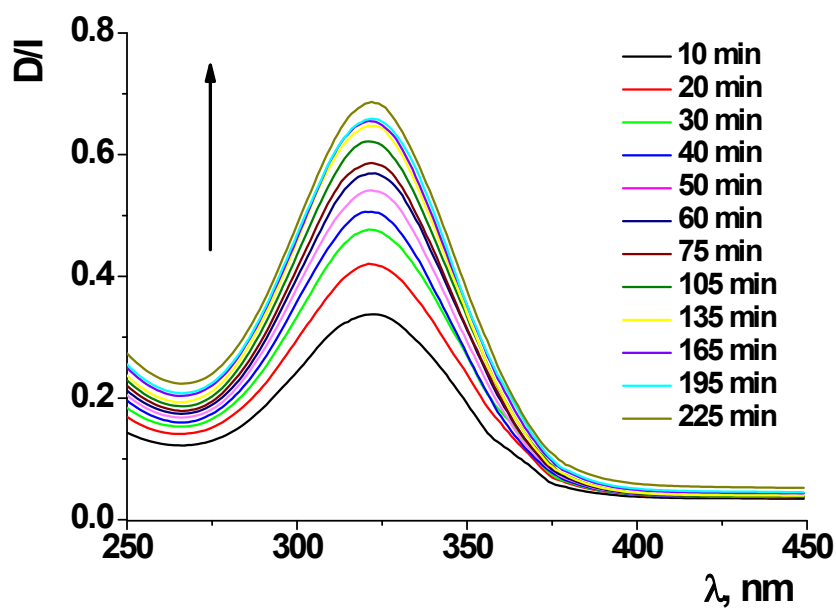


Fig. S5. UV-Vis spectra of metronidazole released using the dialysis bag method from TPPB-14/DPPC modified liposomes at molar ratio surfactant/lipid 0.04:1, phosphate buffer (0.025 M), pH = 7.4, 37°C.