

# Development of New Natural Lipid-Based Nanoparticles Loaded with Aluminum-Phthalocyanine for Photodynamic Therapy Against Melanoma

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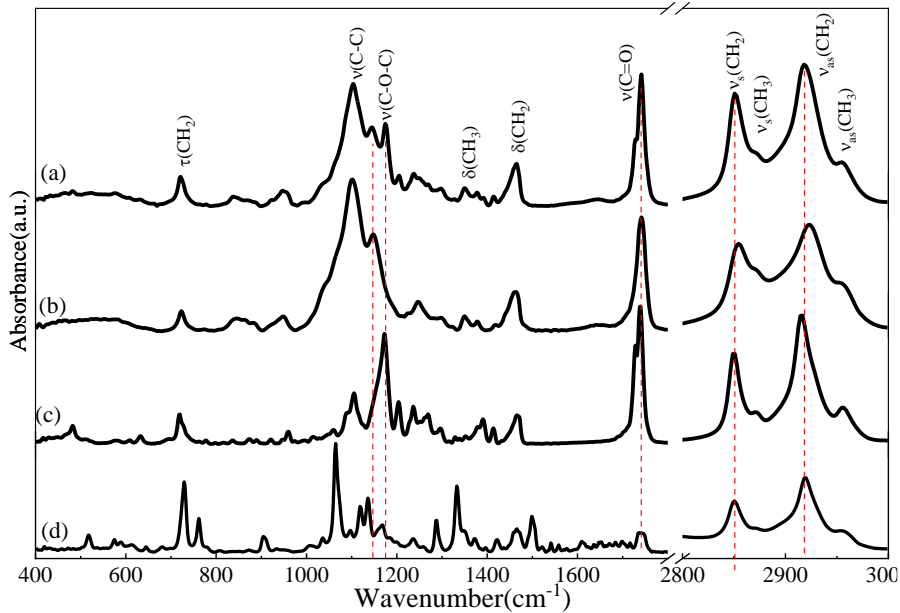
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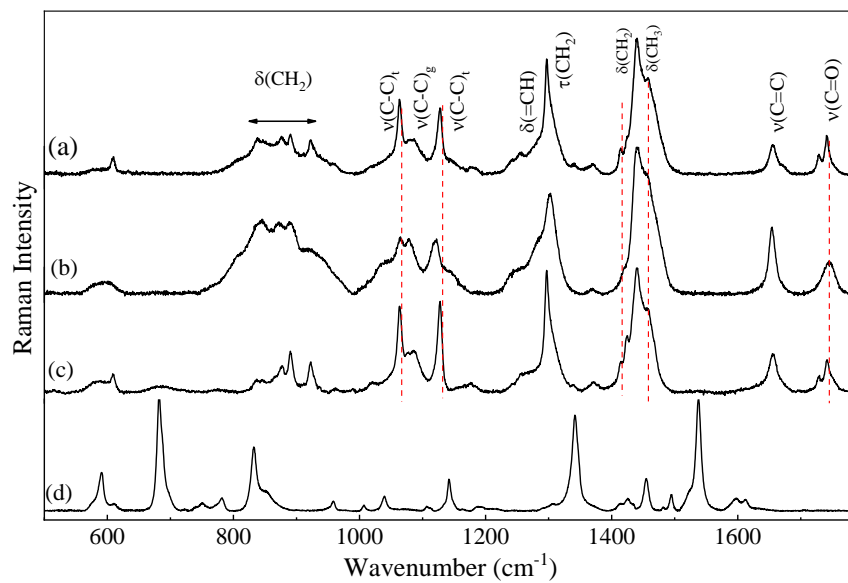
**Table S1.** Stability of SLN-AIPc by the parameters of DH, PDI and PZ, for 1, 90 and 176 days, at room temperature, 4°C and 37°C

	Day 1	Day 90	Day 176
Room Temperature			
DH (nm)	35.64 ± 0.913	57.53 ± 1.195	60.41 ± 3.41
ZP (mV)	-5.61 ± 0.925	-6.63 ± 0.249	-5.09 ± 0.732
Pdl	0.123 ± 0.013	0.118 ± 0.009	0.192 ± 0.027
4°C			
DH (nm)	35.64 ± 0.913	54.36 ± 1.628	49.12 ± 2.198
ZP (mV)	-5.61 ± 0.925	-7.64 ± 0.826	-5.89 ± 1.012
Pdl	0.123 ± 0.013	0.149 ± 0.018	0.192 ± 0.027
37°C			
DH (nm)	35.64 ± 0.913	257.3 ± 24.60	Phase separation
ZP (mV)	-5.61 ± 0.925	-6.63 ± 0.249	
Pdl	0.123 ± 0.013	0.346 ± 0.084	

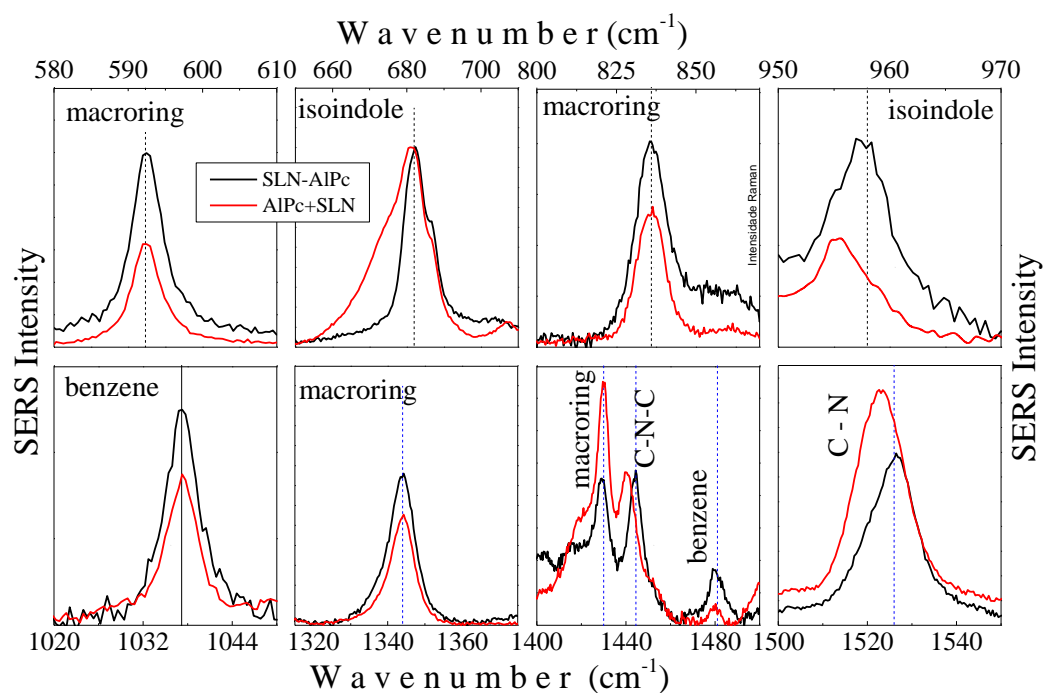
DH: Hydrodynamic diameter; PDI: Polydispersity index; and PZ: Potential zeta



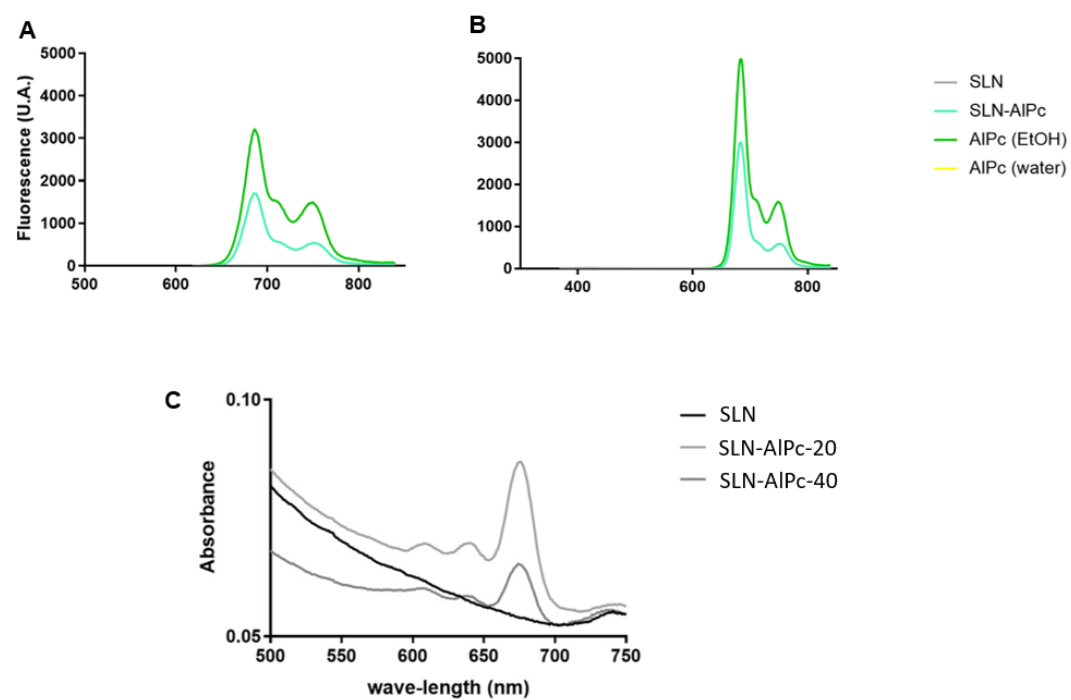
**Figure S1.** FTIR spectra of the (a) SLN-AIPc and (b) SLN formulation, (c) murumuru butter and (d) AIPc free



**Figure S2.** Normal Raman spectra of the (a) SLN-AlPc formulation and (b) SLN formulation, (c) murumuru butter and (d) AlPc free.



**Figure S3.** Zoom, at different spectral ranges, of the SERS spectra of SLN-AIPc formulation (black lines) and physical mixture (AIPc+SLN), (red lines) of samples (i) Gly-solution and (ii) 2Gly@PEG/NPs, and (iv) normal Raman spectrum of Gly-solution. (see Figure S3 - SLN-AIPc: black lines and AIPc+SL: red lines).



**Figure S4.** Fluorescence (A, B) and absorbance (C) spectrum of SLN-AIPc. A = Ex:660 nm and B = Ex:350 nm