

Supporting Information

Engineered silica nanoparticles show differences in their interactions with lipid monolayers and bilayers

Ali Asghari Adib,^{a,b} Saeed Nazemidashtarjandi,^a Alexander Kelly,^c Adelaide Kruse,^d Katherine Cimatu,^d Allan E. David,^c Amir M. Farnoud^{a,b,*}

a. Chemical and Biomolecular Engineering Department, Ohio University, Athens, Ohio 45701, United States.

b. Biomedical Engineering Program, Russ College of Engineering and Technology, Ohio University, Athens, Ohio 45701, United States.

c. Department of Chemical Engineering, Auburn University, Auburn, Alabama 36849, United States.

d. Department of Chemistry and Biochemistry, Ohio University, Athens, Ohio 45701, United States.

* To whom correspondence should be addressed: Amir M. Farnoud, Ph.D., Department of Chemical and Biomolecular Engineering, 168 Stocker Center, Ohio University, Athens, Ohio 45701, Tel: 740-593-1426, Fax: 740-593-0873, farnoud@ohio.edu

Results

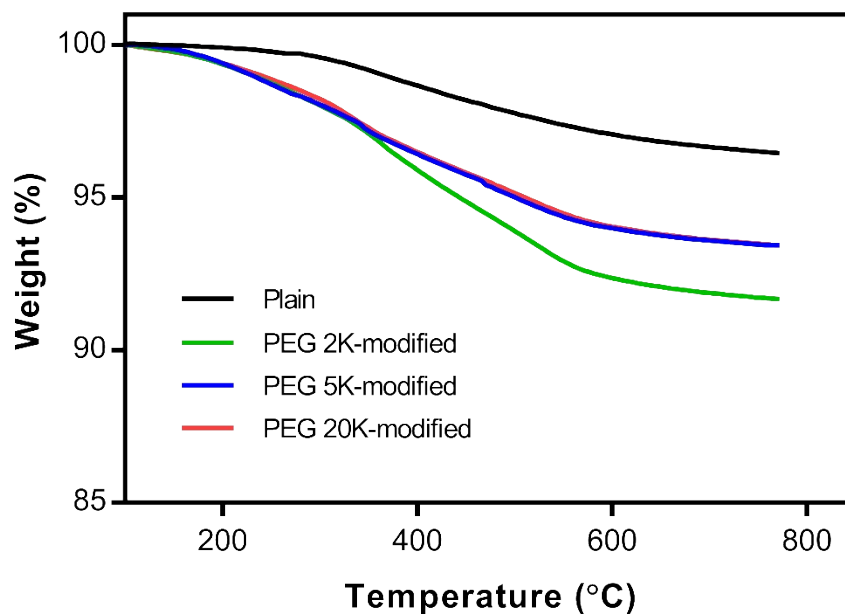


Fig .S1 Thermogravimetric analysis (TGA) of plain and PEG-modified silica nanoparticles. Particle weight loss as a function of temperature was used to estimate the grafting density of PEG molecules using Equation 1. PEG 2K, 5K and 20K-modified silica particles had an estimated grafting density of 0.90, 0.28 and 0.07 PEG chains/nm², respectively.