

IDENTIFYING THE LIPID WRAP AROUND NANOTUBES

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Abstract

Biological identity of a nanomaterial after the initial contact with a biological system strongly depend on the interaction between surface of a nanomaterial and a biological system like plasma or plasma membranes. Depending on the affinity of various proteins and lipids, a nanoparticle can coat with protein and/or lipids and exchange those at any later time as well. Here, fluorescence microspectroscopy (FMS), FRET concept and EDS TEM are employed to identify molecular contact between the lipids and surface of a nanomaterial where the affinity of lipids to nanomaterial surface is responsible for lipid wrapping around nanomaterial leading to a destabilization of a lipid bilayer.

Keywords: FMS, identity of nanomaterials, lipid wrapping, membrane disintegration

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