ABSTRACT

FORMULATIONS FOR ALTERATION OF BIOPHYSICAL PROPERTIES OF MUCOSAL LINING

Conductive formulations containing conductive agents, and methods of use, have been developed. Active agents, such as antivirals, antimicrobials, anti-inflammatories, proteins or peptides, may be included with the formulation. When applied to mucosal lining fluids, the formulation alters the physical properties such as the surface tension, surface elasticity, and bulk viscosity of the mucosal lining. The formulations may be administered for several different purposes: reducing the spreading of infectious diseases, both viral and bacterial, such as SARS, influenza, tuberculosis, and RSV in humans and hoof and mouth disease in cloven-footed animals; minimizing ambient contamination due to particle formation during breathing, coughing, sneezing, or talking which is particularly important in the clean room applications; decreasing or preventing the occurrence of obstructive sleep apnea and some cases of irritable bowel syndrome; and controlling the uptake kinetics of drug molecules and pathogens.

Figure-1.