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(54) Title: ANTIMICROBIAL POLYMERIC SURFACES

(57) Abstract: Bactericidal compositions are disclosed that comprise a polymeric compound immobilized on a material. Medical devices are also disclosed which comprise such a bactericidal composition. Methods are disclosed for covalently derivatizing the surfaces of common materials with an antibacterial polycation, e.g., poly(vinyl-*N*-pyridinium bromide); the first step of the methods involves coating the surface with a nanolayer of silica. Various commercial synthetic polymers derivatized in this manner are bactericidal, i.e., they kill on contact up to 99 % of deposited Gram-positive and Gram-negative bacteria, whether deposited through air or water.