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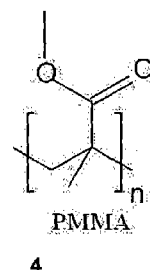
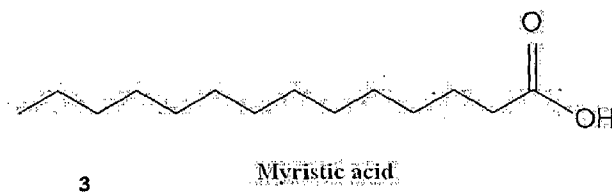
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(54) **Title:** A COMPOSITE MATERIAL

(57) **Abstract:** There is herein disclosed a composite material comprising nanoparticles capped with a hydrophobic ligand dispersed within a polymer matrix. The hydrophobic ligand is a fatty acid and/or selected from $(R^1)_3P$, $(R^2)_3P(O)$, $R^3P(O)(OH)_2$, R^4NH_2 , R^5CO_2H and mixtures thereof, wherein: R^1 to R^3 each independently represents a C_8 to C_{24} straight- or branched-chain alkyl group that is saturated or unsaturated; R^4 represents a C_{14} to C_{24} straight- or branched-chain alkyl group that is saturated or unsaturated; and R^5 represents a C_{12} to C_{24} straight- or branched-chain alkyl group that is saturated or unsaturated, and methods for making the same.