

[54] **PROCESS FOR PRODUCING A MULTI-LAYERED SLOW RELEASE COMPOSITE**

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[58] Field of Search ..... **427/2, 3, 214, 222, 427/399, 400, 407.1; 428/407, 403; 424/19, 21, 32, 33**

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[57] **ABSTRACT**

A process is herein disclosed for producing a multi-layered slow release composite comprising: a first step wherein one or more physiologically active substances is mixed with one member selected from the group consisting of one or more supercooling polymerizable vinyl monomers, one or more natural or synthetic polymeric substances and a mixture thereof, and the mixture is given a predetermined shape and subjected to a physical treatment to form a slow release composite; a second step wherein a predetermined thickness of coating of one member selected from the group consisting of one or more supercooling polymerizable vinyl monomers, one or more natural or synthetic polymeric substances and a mixture thereof is formed on the surface of said slow release composite, which then is subjected to a physical treatment so that a layer wherein no physiologically active substance is encapsulated is formed on the surface of said slow release composite; a third step wherein a predetermined thickness of coating of a mixture of one or more physiologically active substances with one member selected from the group consisting of one or more supercooling polymerizable vinyl monomers, one or more natural or synthetic polymeric substances and a mixture thereof is formed on the surface of the slow release composite having the layer provided in the second step wherein no physiologically active substance is encapsulated, said composite then is subjected to a physical treatment to form a layer wherein the physiologically active substance is encapsulated.

**2 Claims, 3 Drawing Figures**

