2011-022 Slow Degrading Polymer Microspheres: Ideal Vehicles for Sustained Chemical Release

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Technology description

Scientists at Rutgers University have developed biocompatible and biodegradable colloidal polymer microspheres, with highly flexible degradation properties. These microspheres are well characterized and possess tunable size distributions, which ensure uniform degradation/ release profiles. In addition, these microspheres can physically encapsulate the chemical compounds of interest or incorporate them into the polymeric backbone. These polymer microspheres are highly desirable, versatile and widely applicable in numerous industrial applications and fields such as health and nutritional sciences, personal care, skincare, cosmetic and adhesive applications and food packaging.
Synthetic microspheres have been used to aid sustained release of a variety of agents at controlled rates over extended periods of time, (e.g. ranging from days to months). Scientists at Rutgers University have developed biocompatible and biodegradable colloidal polymer microspheres, with highly flexible degradation properties. These microspheres are well characterized and possess tunable size distributions, which ensure uniform degradation/ release profiles. In addition, these microspheres can physically encapsulate the chemical compounds of interest or incorporate them into the polymeric backbone. This makes it possible to load and ultimately release a higher percentage of the chemical compound. Such attributes make these polymer microspheres highly desirable, versatile and widely applicable in numerous industrial applications and fields such as health and nutritional sciences, personal care, skincare, cosmetic and adhesive applications and food packaging.

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