In various embodiments, the capsule/formulation is compatible for one or more of the following applications: perfumes, coatings, medicines (e.g. considered as in the "generally recognized as safe" (GRAS) category by United States Food and Drug Administration (FDA)), agricultural chemicals, catalysts, printings, films, fibers and cosmetics (e.g. with good skin feeling).

BRIEF DESCRIPTION OF FIGURES

FIG. 1 is a schematic flowchart 100 for illustrating a method of preparing a hybrid capsule in accordance with various embodiments disclosed herein.

FIG. 2 is a schematic diagram 200 for illustrating a method of preparing a hybrid capsule in accordance with various embodiments disclosed herein.

FIG. 3 is a schematic diagram 300 of a hybrid capsule in accordance with an example embodiment disclosed herein.

FIGS. 4A and 4B are scanning electron microscopy (SEM) images of poly(N-isopropylacrylamide) (PNIPAM) polymer latex prepared via emulsion polymerization with 1% acrylic acid (AA) and 1% N,N'-Methylenebis(acrylamide) (BIS) crosslinker by weight of the monomer latex particles in the absence of a SDS surfactant, and dried at an elevated temperature (e.g. at 90°C), in accordance with an example embodiment disclosed herein. FIG. 4A shows an SEM image taken at 5,000x magnification, with the scale bar representing 1 pm. FIG. 4B shows an SEM image taken at 10,000x magnification, with the scale bar representing 1 pm.

FIG. 5 is a dynamic light scattering Z-average particle size (DLS Z-ave) vs. temperature graph showing the temperature response of PNIPAM polymer latex synthesized for heterocoagulation studies, in accordance with an example embodiment disclosed herein. As shown, a higher temperature led to decreased particle size, thereby demonstrating the temperature responsiveness of the latex.