13. The method of claim 5, wherein the heterocoagulating step is carried out in the presence of at least two different surfactants comprising at least one cationic surfactant and at least one anionic surfactant.

14. The method of claim 13, wherein the at least two different surfactants are independently selected from the group consisting of a primary amine surfactant, a secondary amine surfactant, a tertiary amine surfactant, a quaternary amine surfactant, cetyl trimethylammonium bromide (CTAB), sodium dodecyl sulfate (SDS), carboxylic acid salt, sulfonic acid salt, phosphoric acid ester, alcohol sulfate, alkylbenzene sulfonate or combinations thereof.

15. A hybrid capsule comprising:

a primary capsule having a shell; and

an organic polymer coating layer over the shell of the primary capsule.

16. The hybrid capsule of claim 15, wherein the hybrid capsule is an organic-inorganic capsule and the primary capsule is an inorganic capsule.

17. The hybrid capsule of claim 15 or 16, wherein the shell of the primary capsule is substantially hermetically sealed by the polymer coating layer.

18. The hybrid capsule of any one of claims 15-17, wherein the hybrid capsule is micron- or submicron-sized.

19. The hybrid capsule of any one of claims 15-18, wherein the hybrid capsule is substantially resistant to breaking under scanning electron microscopy (SEM) vacuum conditions.