Additionally, embodiments of the methods disclosed herein are also versatile in that they are compatible with primary capsules with or without the structural feature of a mesoporous shell and have the flexibility to work with both micron to submicron sized capsules to accordingly produce micron and submicron particles (e.g. from micro-sized to nano-sized capsule products) with relative ease. Advantageously, embodiments of the method are able to address or ameliorate the challenges faced by primary capsules such as silica microcapsules having nano pores and which typically have difficulty keeping small molecules (like perfume) actives inside the capsule. Advantageously, embodiments of the disclosed method are also able to produce reinforced/strengthened capsules over 50 μM, which are typically brittle and easily break when produced by conventional methods.

Advantageously, embodiments of the disclosed methods employ physical methods that are simple and scalable. Embodiments of the disclosed methods do not involve coacervation to create a polymer shell around a primary capsule such as a silica capsule to produce a hybrid capsule and do not require calcination to remove a template. Instead, embodiments of the methods disclosed herein use a single polymer latex (and not multiple polymers that is e.g. used in layer by layer polymer assembly around a particle). As this is unlike a layer-by-layer approach which requires several different layers to get the desirable thickness, embodiments of the method can achieve the desirable thickness in one single step and are easily scalable. Accordingly, embodiments of the disclosed method are simpler as compared to complex approaches using hydrogen bonding and layer by layer assembly. In addition, embodiments of the disclosed methods can be scaled up to kilograms and even tons since embodiments of the method depend mainly on shear force for breakdown of actives into droplets and surfactants such as cationic surfactants for stabilization of the droplets.