Dynamic modelling of multi-phase latex particle morphology

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Objective: Developing novel, computationally feasible, dynamic models for prediction of equilibrium morphologies as well as the process of developing morphologies based on the experimental observations

Applications: multiphase waterborne systems (e.g. polymer-polymer (alkyd-acylic, polyurethane-acrylic, etc), polymer-polymer-inorganic hybrids (silica, clay, etc)).

Morphologies of two-phase polymer observed experimentally and reproduced computationally

Sandwich | Hemi-spheres | Core-shell | Inverted core-shell
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![Sandwich](image1.png) | ![Hemi-spheres](image2.png) | ![Core-shell](image3.png) | ![Inverted core-shell](image4.png)

Yi-Cherng Chen, et al., Pure & App/. Chem, 64 (1992), No. 11, 1691-1696