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Electrostatic Complexation between Membrane and Colloid JIAFANG WANG, University of Massachusetts, Amherst, M. MUTHUKUMAR, University of Massachusetts, Amherst — As a primary model of endocytosis, the electrostatic complexation between membrane and colloid is studied. Using a simple approximation, the membrane shape can be determined easily without solving the nonlinear differential shape equation, which facilitates the consideration of electrostatic effects. The phase diagram for the electrostatic complexes can be constructed in terms of the rescaled stretching tension, adhesion strength, and the screening length. By referring to the phase diagram, the possible phase transitions due to the variations of the electrostatic factors (including the charge density, and the screening length) are discussed.

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