

Abstract Submitted
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Femtonewton Measurements of Polymer-Mediated Colloidal Interaction SVEN BEHRENS, BASF, HELMUT AUWETER, BASF — The stability of colloidal dispersions hinges on the repulsive interaction between the particle surfaces. This interaction can be modified by adsorbed polymer and further tuned by the response of the adsorbate layer to changes in the surrounding solution. Total internal reflection microscopy has been used in this study to investigate the effect of charged and neutral polymer adsorbates on the interaction of a colloidal particle with a flat substrate. The results were correlated with light scattering studies of the employed polymers in solution and of polymer-coated particles; they reveal a subtle interplay of steric, electrostatic, and van der Waals forces.

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