

Abstract Submitted
for the MAR13 Meeting of
The American Physical Society

Dynamics of Repulsing Charged Particles: a Fluorescence Cross-Correlation Spectroscopy Study¹ JINGFA YANG, Institute of Chemistry, Chinese Academy of Sciences, China, LIGANG FENG, JIANG ZHAO, Institute of Chemistry, Chinese Academy of Sciences, ANDEAS BEST, HANS-JURGEN BUTT, KALOIAN KOYNOV, Max-Planck Institute for Polymer Research, INSTITUTE OF CHEMISTRY, CHINESE ACADEMY OF SCIENCES COLLABORATION, MAX-PLANCK INSTITUTE FOR POLYMER RESEARCH COLLABORATION — Electrostatic interaction controls the stability of charged colloidal particles dispersed in an aqueous solution. In our study, we measured the interaction between charged polystyrene particles by fluorescence cross-correlation spectroscopy (FCCS). Negative correlation function was observed for these repulsing particles and a detailed analysis by Brownian dynamics simulation provided a few important factors of the system: the correlation length at which the interaction dominates and the cage effect in the diffusion of the particles.

¹Project supported by jointed scholarship of Chinese Academy of Sciences and Max-Planck Society

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Date submitted: 09 Nov 2012

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