

Abstract Submitted
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Spatailly Resolved Fluorescence Correlation Spectroscopy for Monitoring Biomolecular Dynamics FARSHAD ABDOLLAH-NIA, Department of Physics, Colorado State University, Fort Collins, CO 80523, KEVIN WHITCOMB, Department of Chemistry, Colorado State University, Fort Collins, CO 80523, MARTIN GELFAND, Department of Physics, Colorado State University, Fort Collins, CO 80523, ALAN VAN ORDEN, Department of Chemistry, Colorado State University, Fort Collins, CO 80523 — Two-beam Fluorescence Correlation Spectroscopy has been used to examine the diffusion, flow, and reaction rates of various ions and biological molecules, such as DNA, RNA, and proteins. Two laser beams were focused to form femtoliter probe regions in a capillary through which the analyte solution flowed continuously under the influence of an applied electric field or mechanical pressure. This poster introduces the theoretical and experimental concepts behind this technique, and presents some example results obtained by this group.

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