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**Convex Lens-induced Confinement to Visualize Biopolymers and Interaction Parameters** FRANK STABILE, DANIEL BERARD, GIL HENKIN, MARJAN SHAYEGAN, FRANOIS MICHAUD, SABRINA LESLIE, McGill University — In this poster, we present a versatile CLiC (Convex Lens-induced Confinement) microscopy system to access a broad range of biopolymer visualization and interaction parameters. In the CLiC technique, the curved surface of a convex lens is used to deform a flexible coverslip above a glass substrate, creating a nanoscale gap that can be tuned during an experiment to load and confine molecules into nanoscale features, both linear and circular, embedded in the bottom substrate. We demonstrate and characterize massively parallel DNA nanochannel-based stretching, building on prior work. Further, we demonstrate controlled insertion of reagent molecules within the CLiC imaging chamber. We visualize real-time reaction dynamics of nanoconfined species, including dye/DNA intercalation and DNA/DNA ligation reactions, demonstrating the versatility of this nanoscale microscopy platform.

Francis Stabile  
McGill University

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