

Applications of Micro Free Flow Electrophoresis

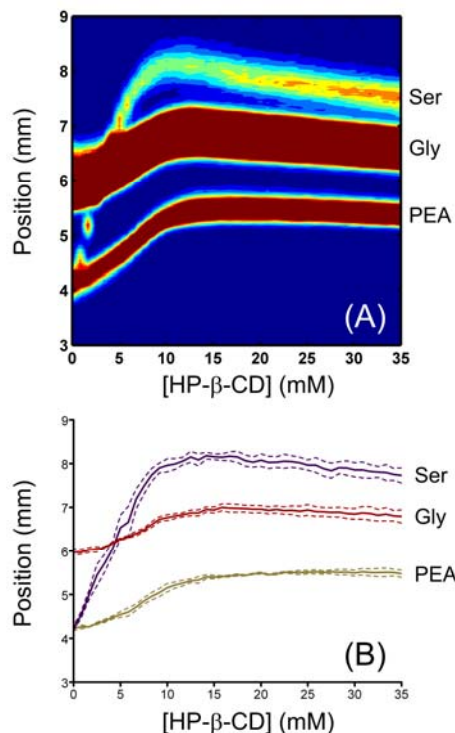
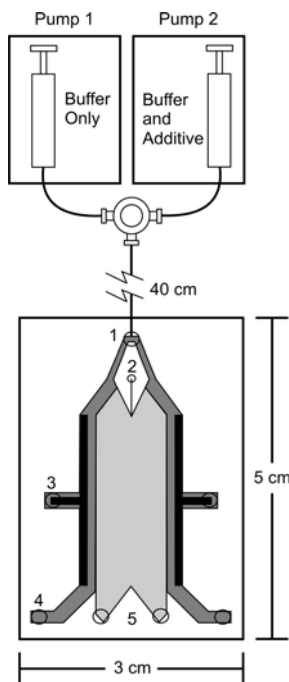
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NNIN Facility utilized: Nanofabrication Center

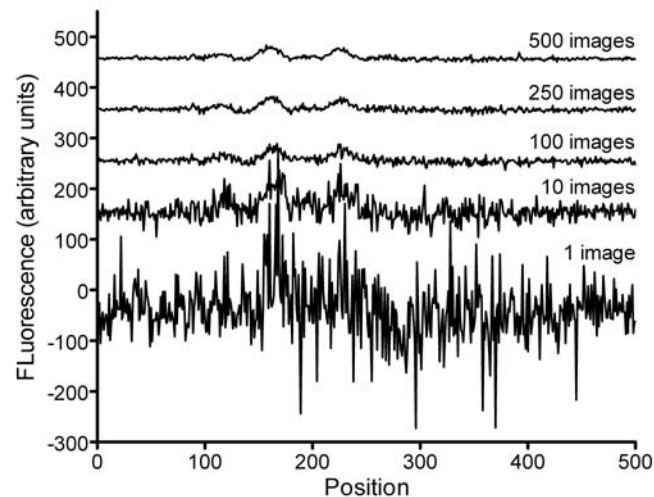
DESCRIPTION OF WORK

- ◆ Studied unique applications of continuous μ FFE separations.
- ◆ Introduced Gradient μ FFE
- ◆ Studied sensitivity in μ FFE



MAJOR OBSERVATIONS

- ◆ Gradient μ FFE allowed the effect of a range of buffer conditions to be tested in 5 minutes
- ◆ Signal averaging improved μ FFE signal to noise >20-fold in two minutes of collection time.



Publications

- ◆ Bryan R. Fonslow and Michael T. Bowser. "Fast Electrophoretic Separation Optimization Using Gradient Micro Free Flow Electrophoresis (μ -FFE)" *Anal. Chem.*, 2008, *in press*.
- ◆ Ryan Turgeon and Michael T. Bowser. "Improving Sensitivity in Micro-Free Flow Electrophoresis Using Signal Averaging" *Anal. Chem.*, 2008, *submitted*.