

A “Laser Printer” for Proteins

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How to control adsorption and patterning of proteins on a thin film?

Laser-induced adsorption of proteins on the “smart polymer” thin film leading to fast adsorption times and high resolution

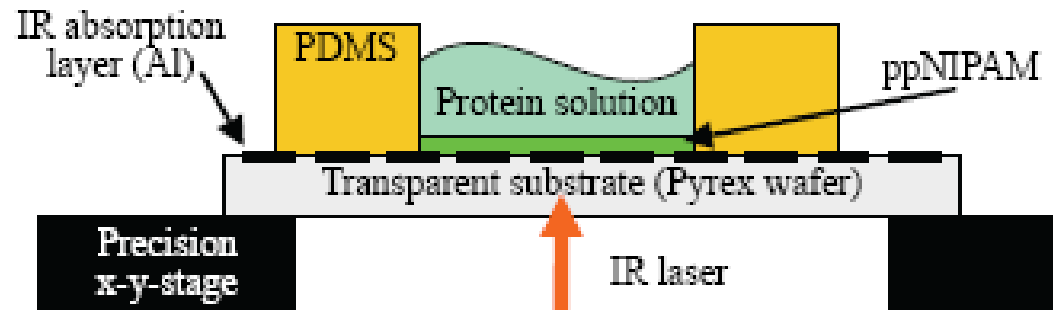
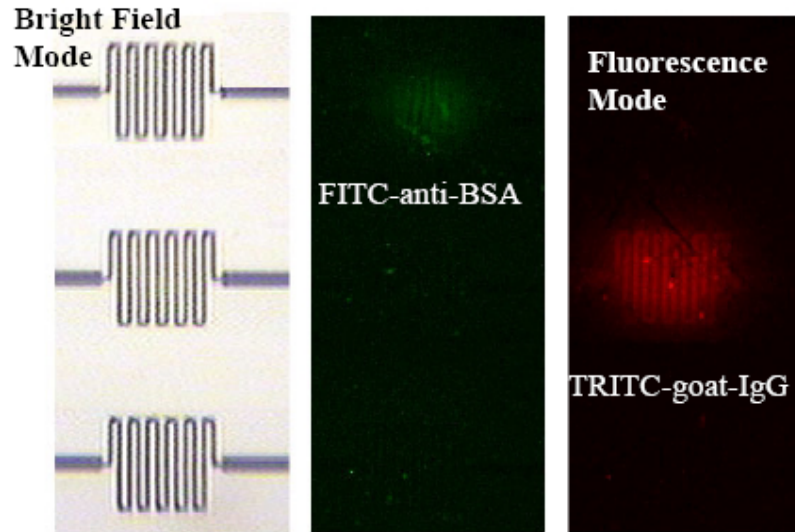


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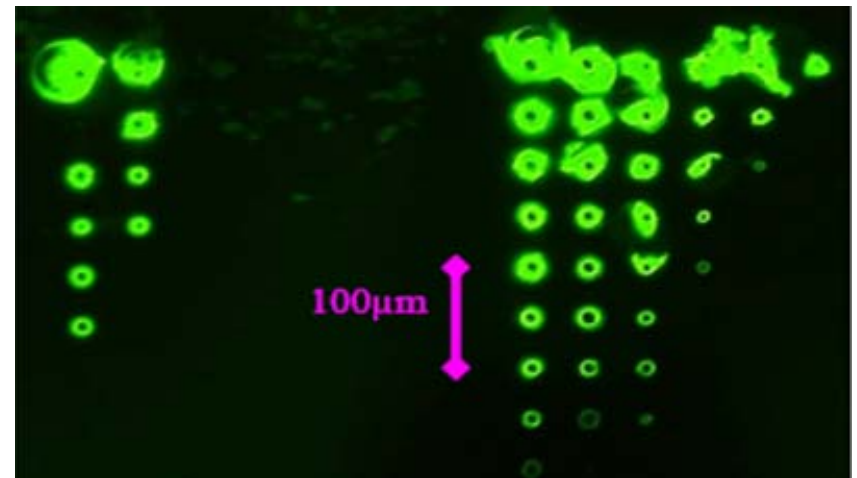
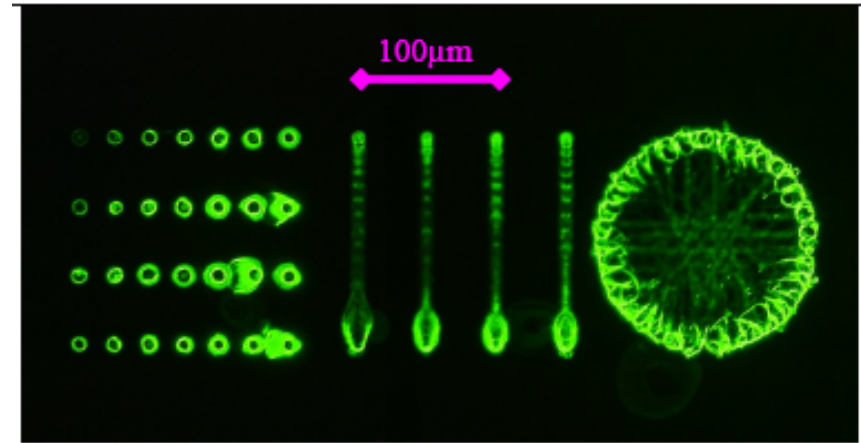
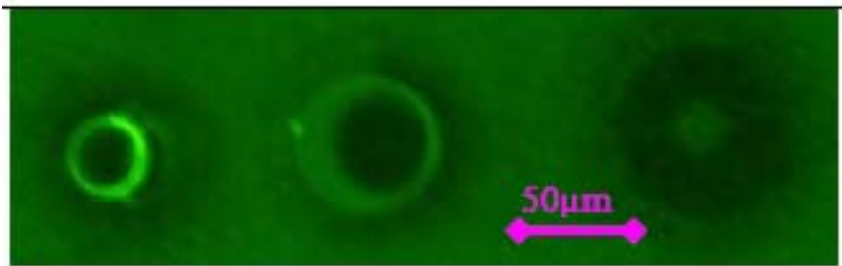
- Heating the “smart polymer” (ppNIPAM) makes it protein adsorbing
- Multiple exposure-adsorption-rinse cycles for different proteins



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Accomplishments

- Laser induced adsorption of different types of proteins
- Similar to color laser printing
- Could be used for capture and release of cells
- Future applications for low cost diagnostic devices



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