Laser Ablation of Polymer Substrates

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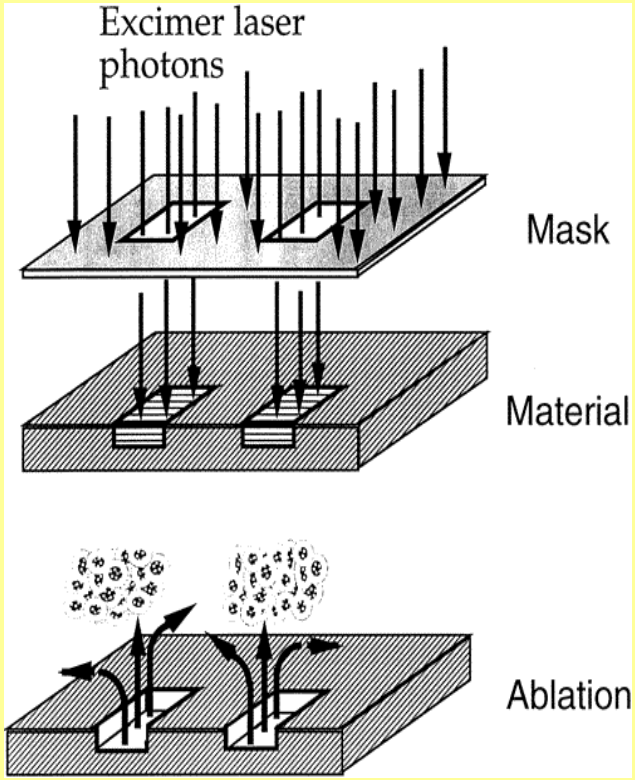
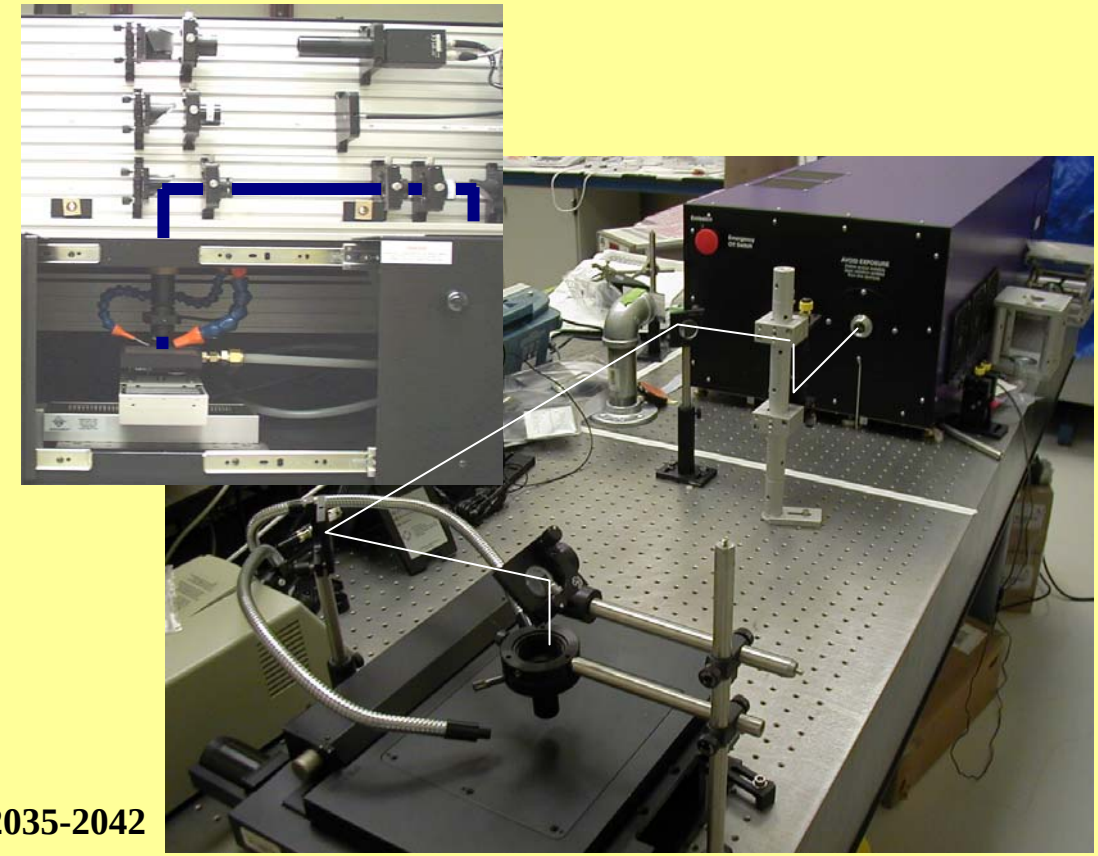
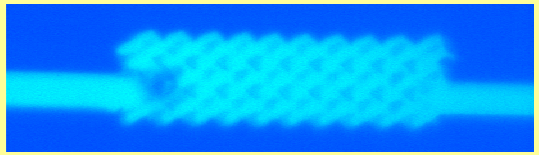
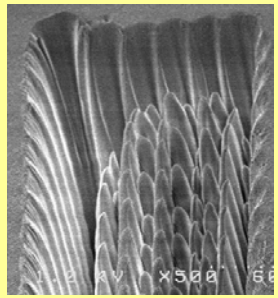
What is Laser Ablation?

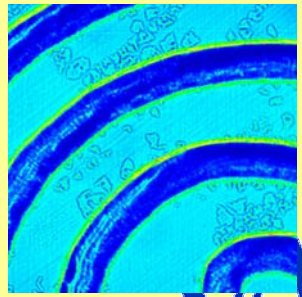




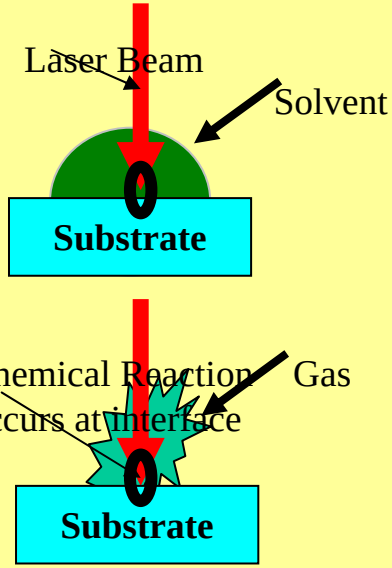
Roberts, M.A., et. al *Anal. Chem*. 1997, *69*, 2035-2042

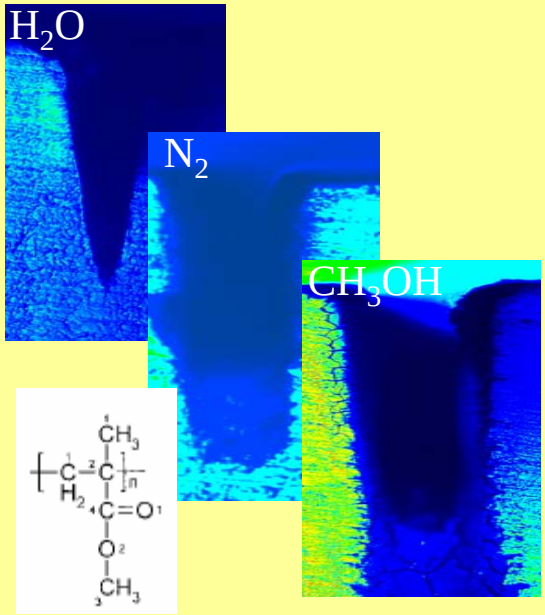


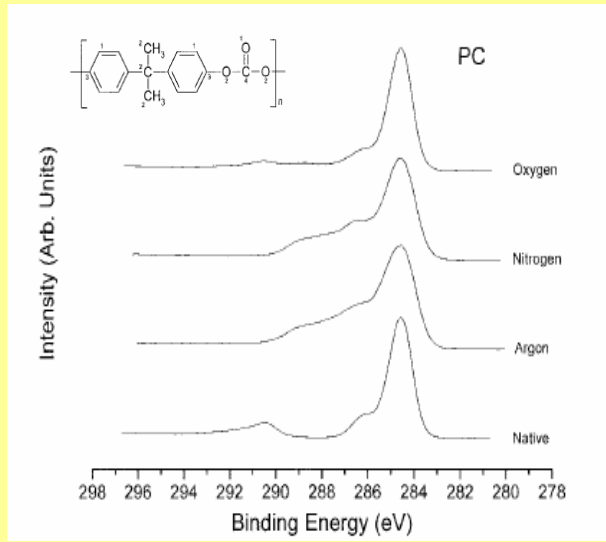




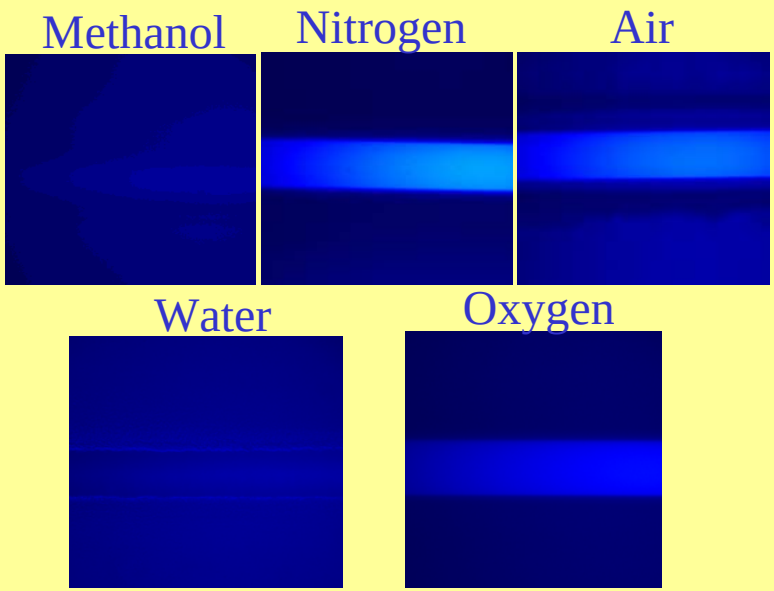
Affect of Atmosphere on Gross Morphology and Surface Chemistry

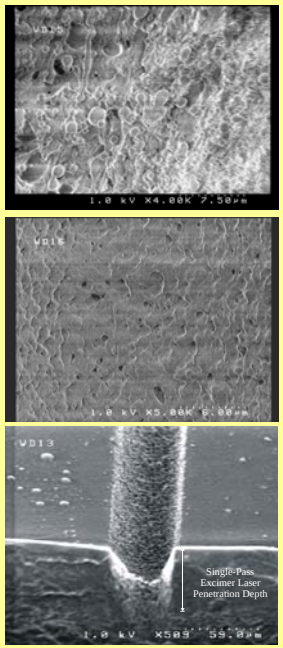


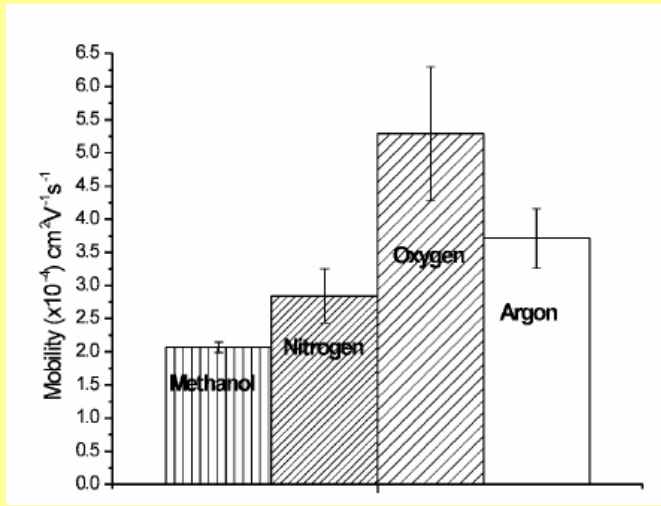




	native	argon	nitrogen	oxygen	lit.[a]
C(1)	284.5	284.5	284.5	284.5	284.5
C(2)	285.0	285.0	285.0	285.0	285.0
C(3)	286.2	286.3	286.3	286.3	286.2
C(4)	290.5			290.4	290.4
O(1)	532.3	532.2	532.1	532.0	532.3
O(2)	534.0	533.9	533.9	533.9	534.0
O/C	0.19	0.39	0.40	0.26	0.19
COOX/C	0.09	0.12	0.13	0.06	0.06

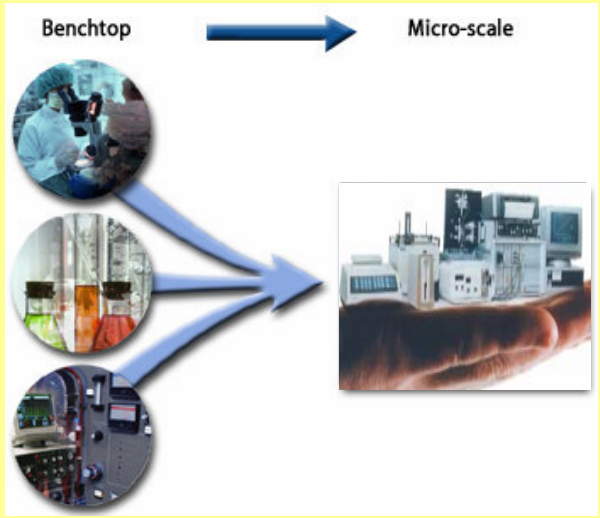


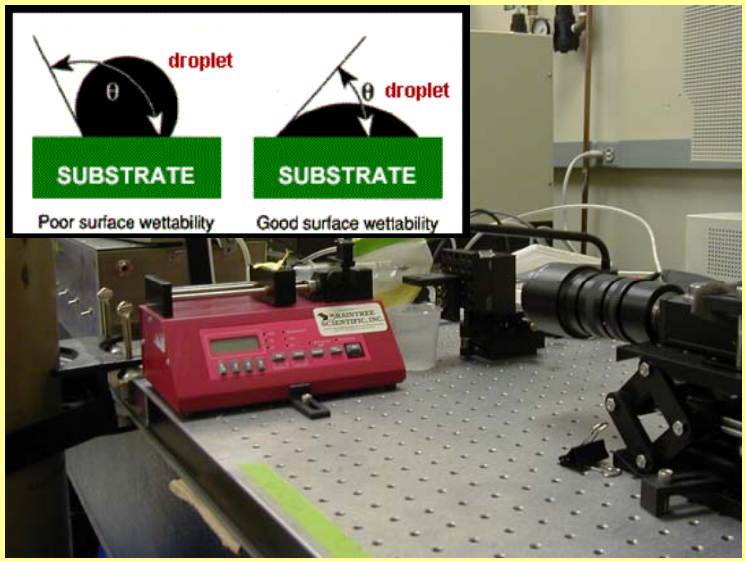


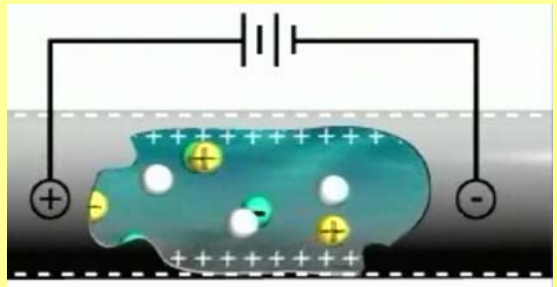


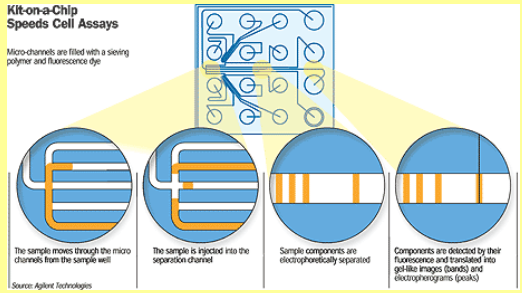
Applications and Future Directions

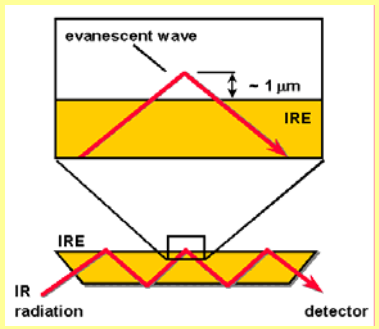
- ATR-IR
- Contact Angle
- Surface Charge
- Raman Spectroscopy
- Incoherent Excimer Radiation
- Lab-on-a-Chip Fabrication
- Cell Growth on modified substrates

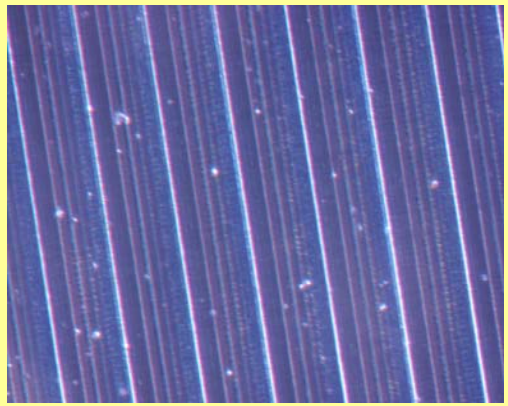












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