



Space Sciences Laboratory, University of California, Berkeley

SSL-UCB, ALD/Incom MCP Test

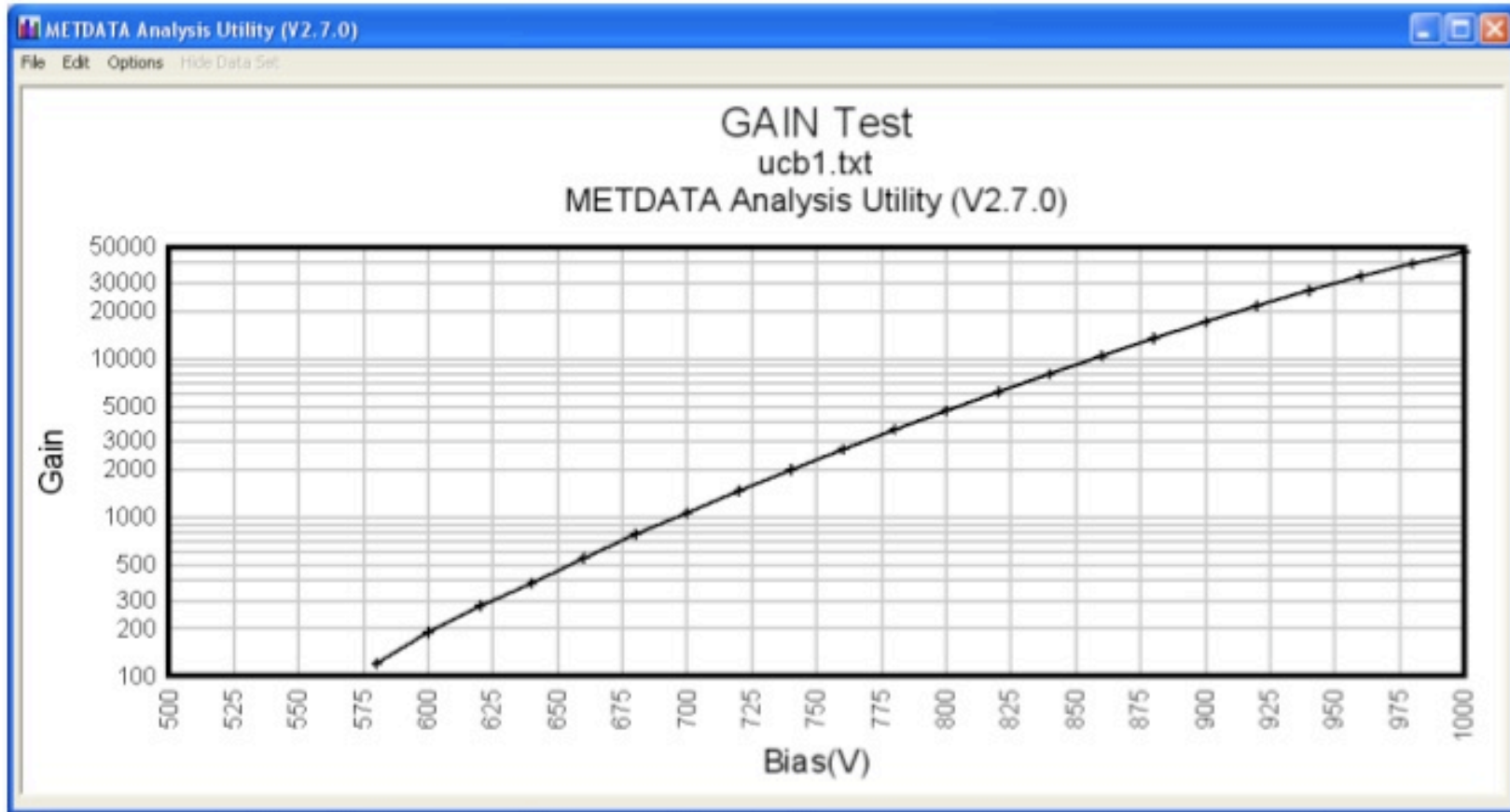
- Incom substrate
 - 40 μ m pores, 8 deg bias, 40:1 L/D
- Sent to Arradance for resistive and emissive layer application + electrode
- Resistance approx 750 M Ω in vacuum
- Arradance tests show 50,000 gain @ 1000v
- UV - bright image, no light - black!
- Tested as a single MCP + Phosphor
- **It works! We have a functional, uniform, and stable (1hr) MCP using borosilicate and ALD.**
- **Project milestone under 5.1 year 1 deliverable**



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Arradiance gain curve for Incom 40 μ m coated substrate

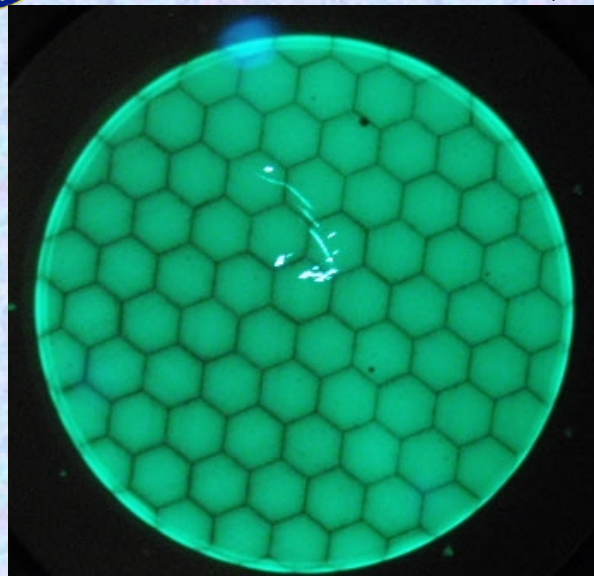




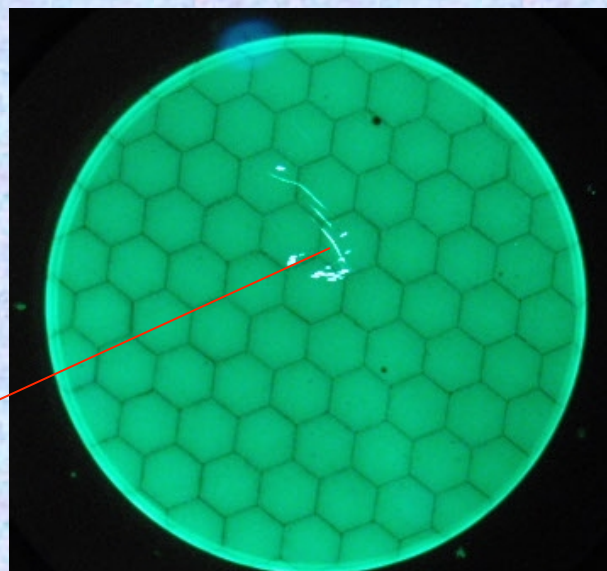
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It works!

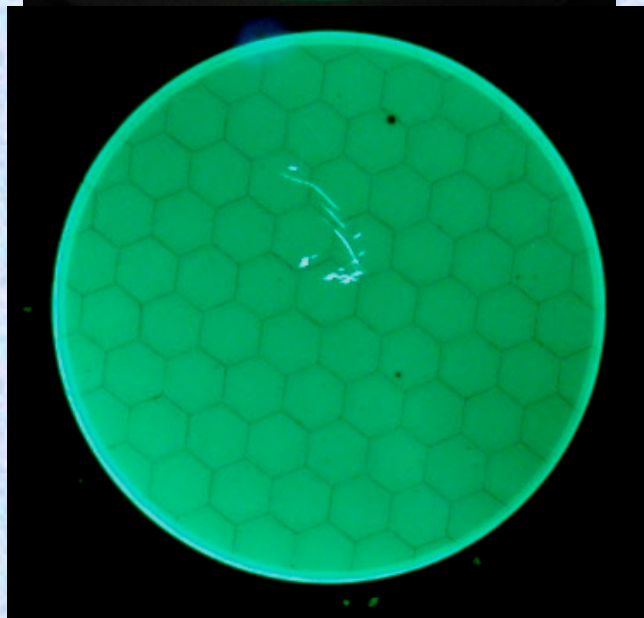


700v



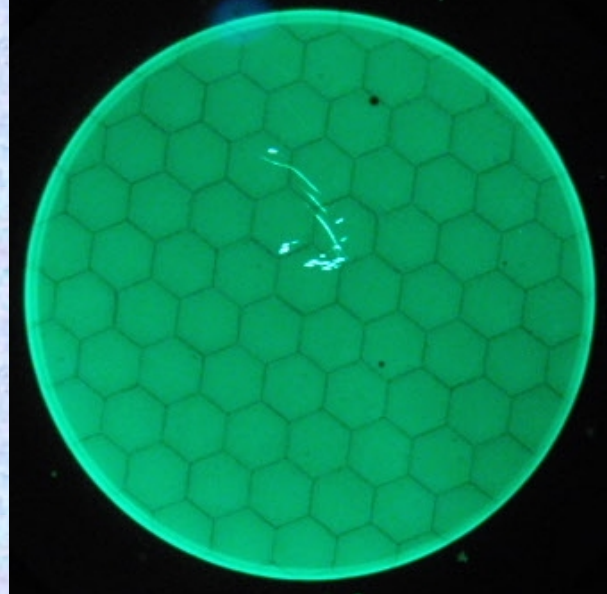
800v

Bright scratch
on phosphor



1000v

UV light



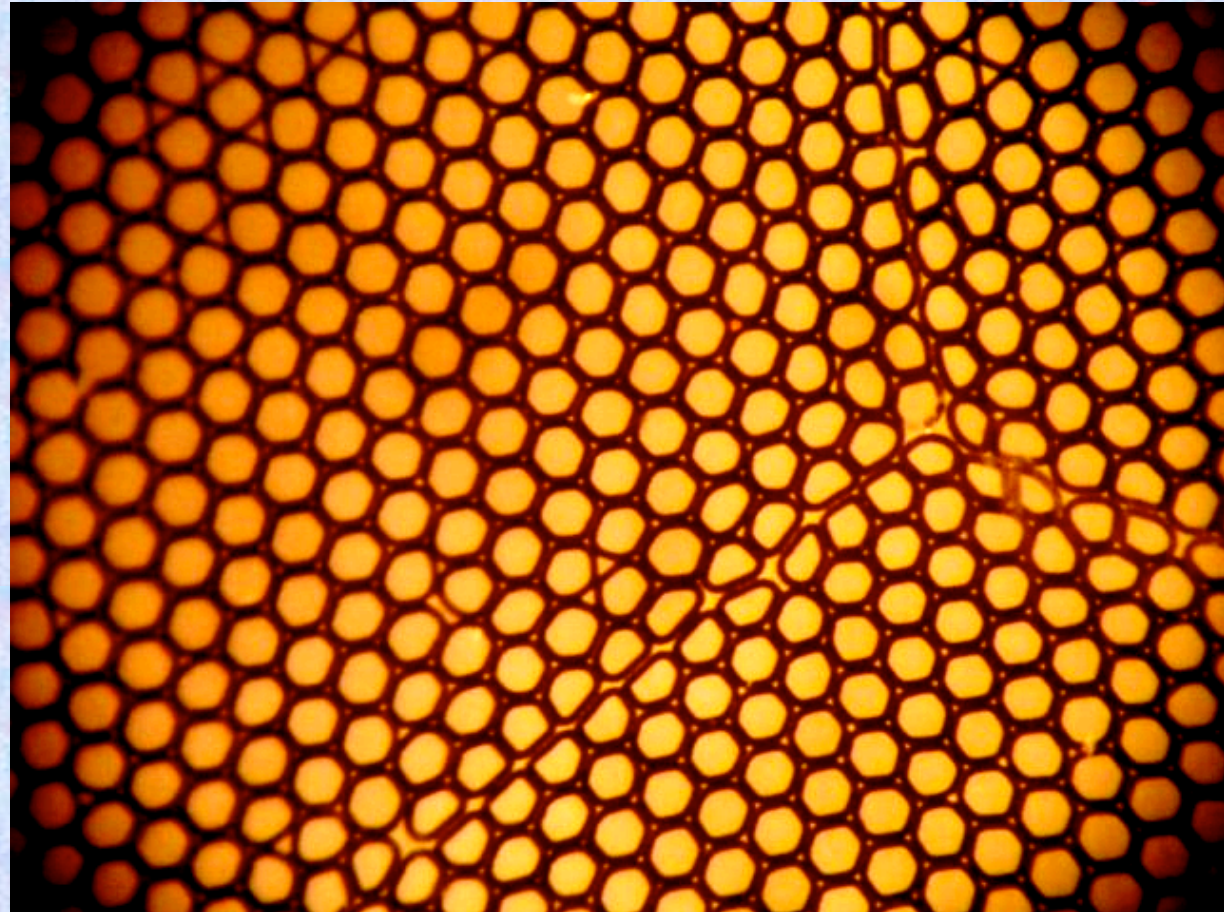
900v



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- Multifiber pattern is bad due to crushing of pores at the multifiber interfaces





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- Multifiber pattern fades as the MCP gain is increased
- Gain is quite uniform
- Need to determine cause of black spots
- Multifiber lines $< 100\mu\text{m}$

2mm

