



# Results for Mirror Reflectivity Measurements

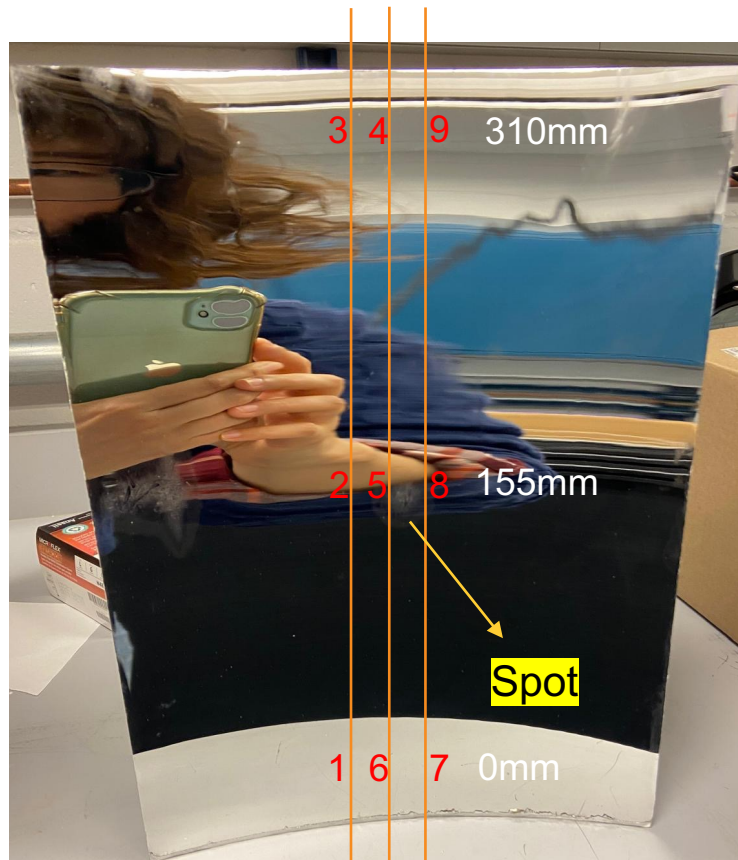
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2026/05/18

ePIC pFRICh Engineering/Design Meeting

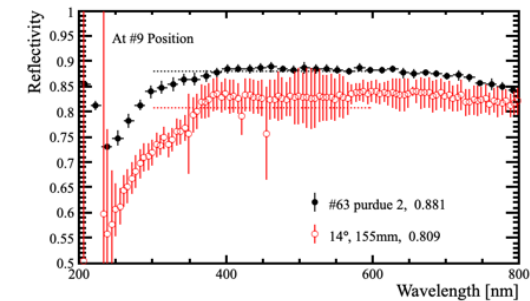
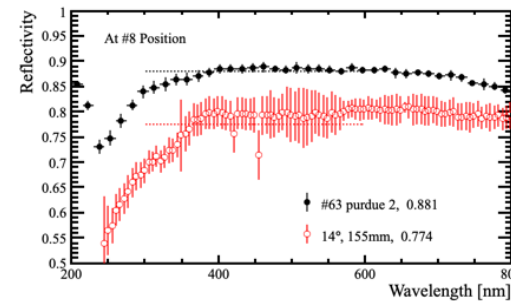
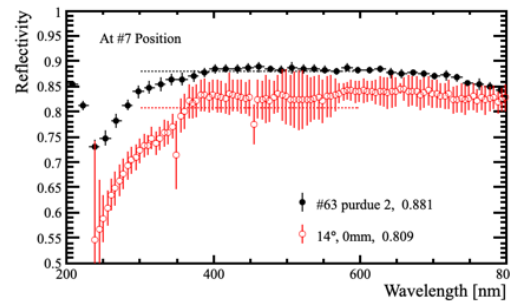
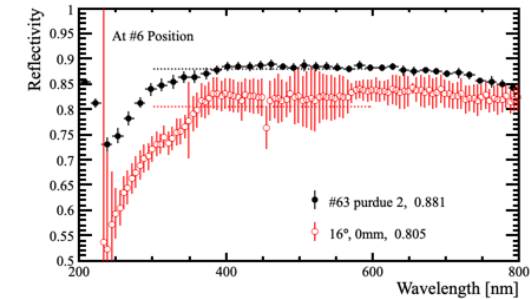
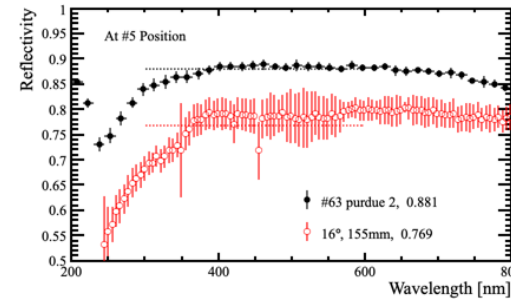
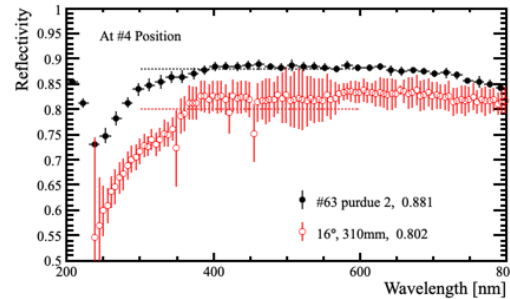
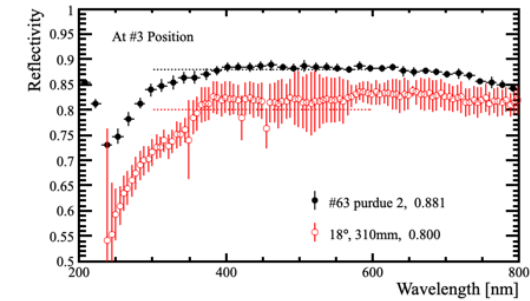
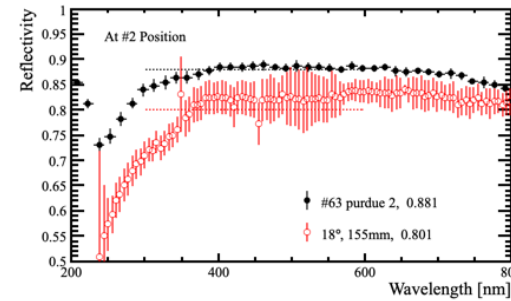
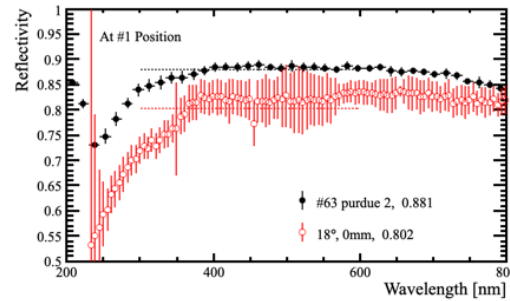


# Large Mirror Sample used for test beam



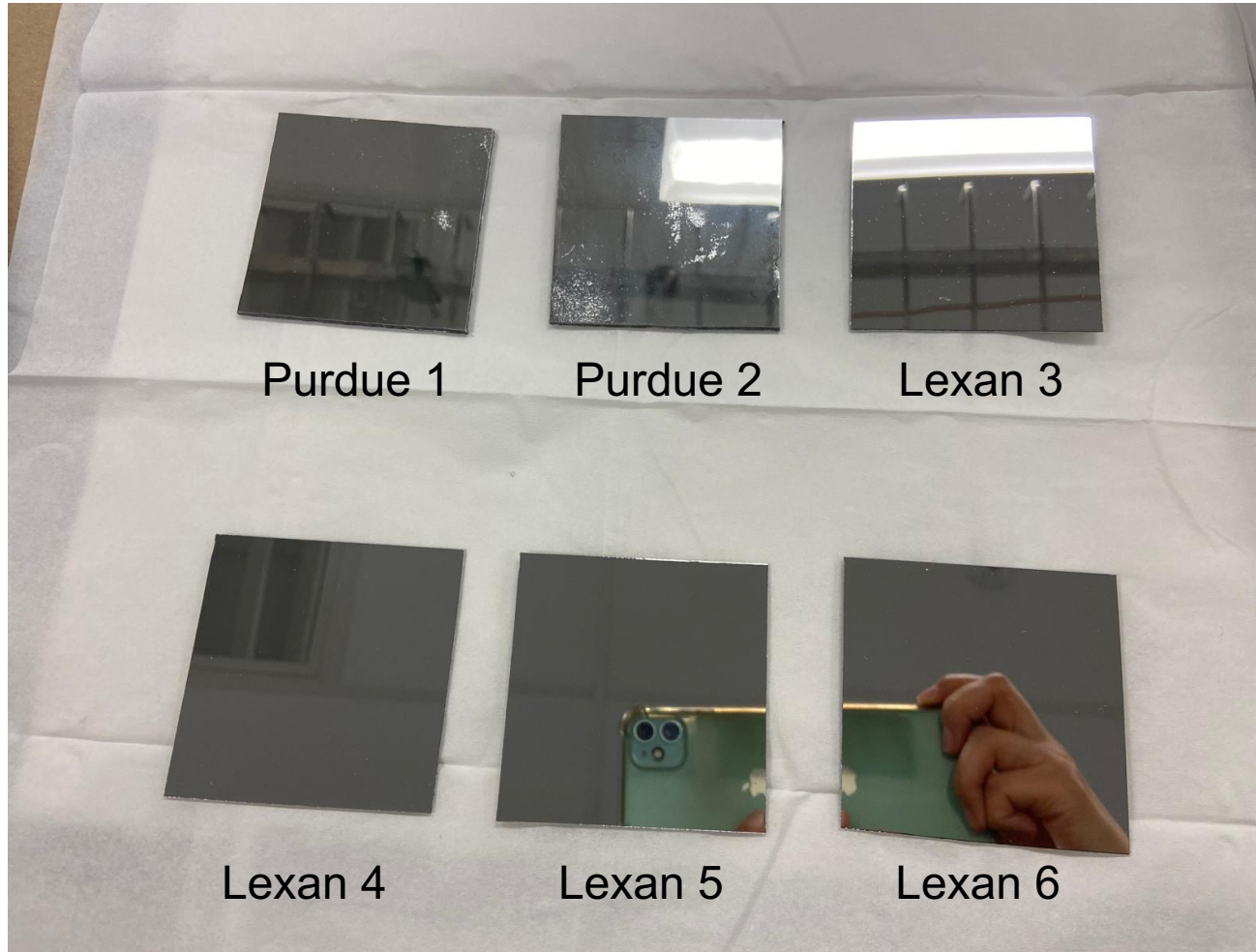
14° 16° 18°

9 positions under test



The reflectivity results for position #5 and #8 are smaller than other positions because of the spot in the mirror

# Small Mirror Samples (#70 Batch)

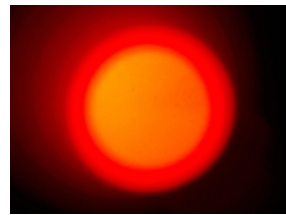


## Coating recipe

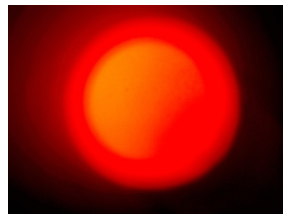
- Al 16.001 kA
- Cr 3.992 kA
- SiO<sub>2</sub> 1.397 kA

- A clear defect is visible on the surface for the Purdue 2 mirror
- Lexan 3 mirror is used for the scratch test

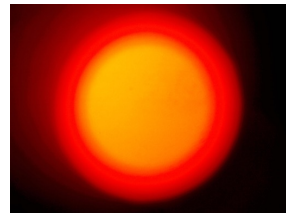
# Small Mirror Reflectivity Results #70



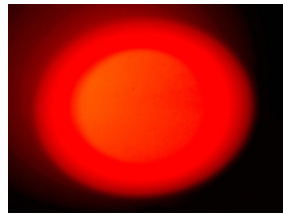
Purdue 1



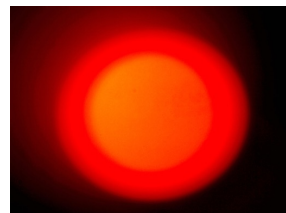
Purdue 2



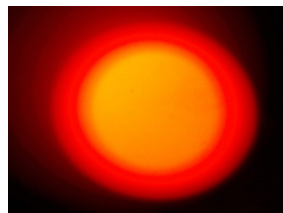
Lexan 3



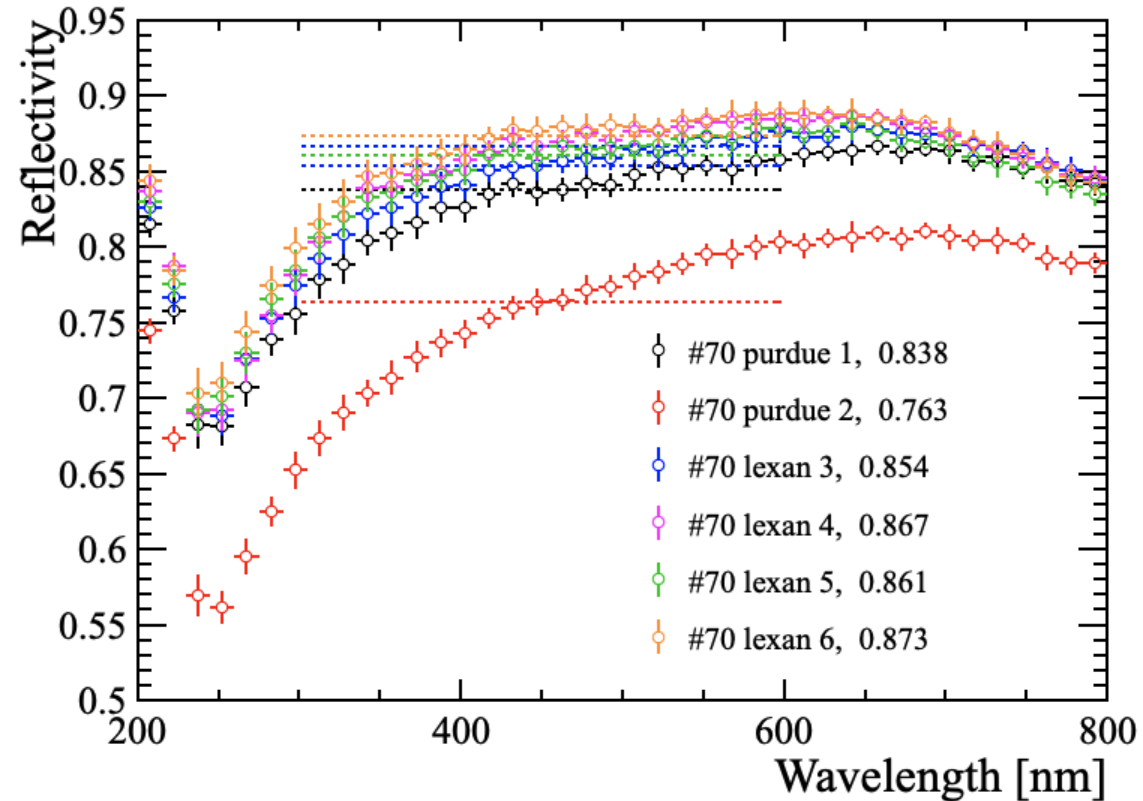
Lexan 4



Lexan 5



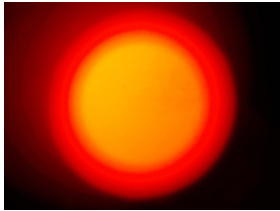
Lexan 6



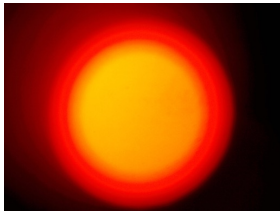
- The reflectivity result for Purdue 2 is smaller than others because of the visible defect
- The reflectivity results for batch #70 are smaller than batch #63 (89.7%)

Batch	Al	Cr	SiO <sub>2</sub>
#63	16.001	3.996	1.386
#70	16.006	3.992	1.397

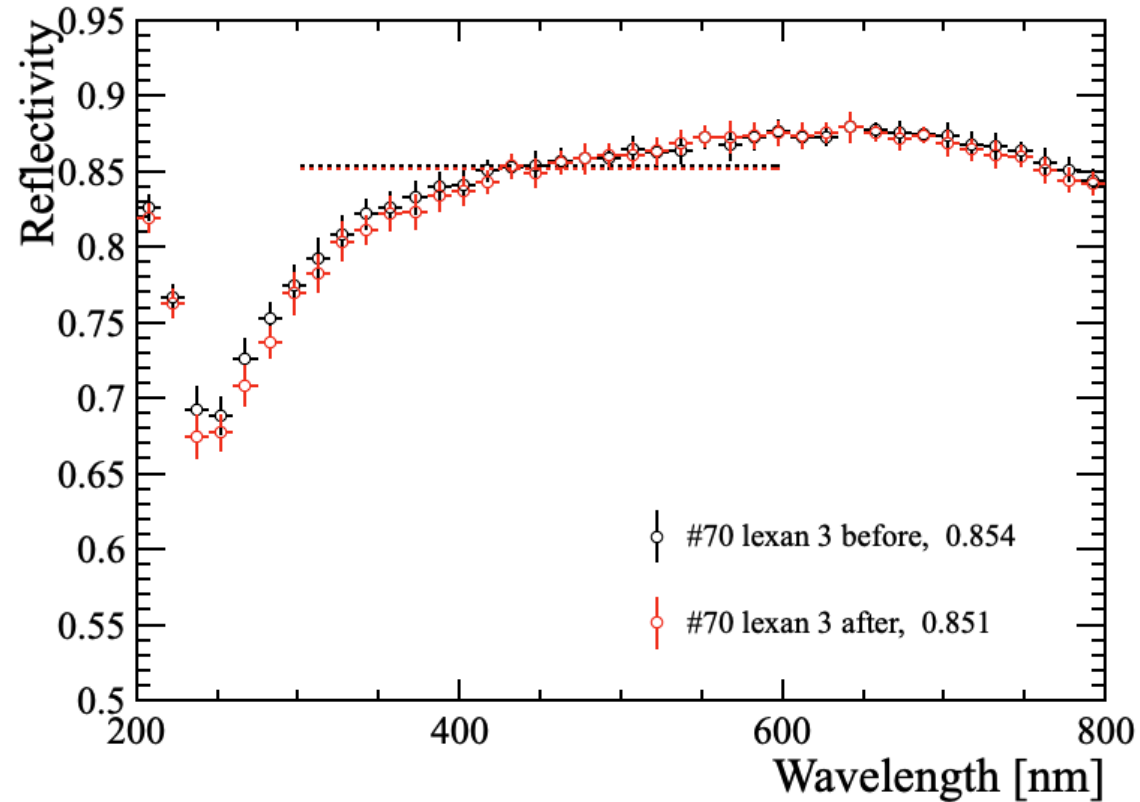
# Small Mirror Scratch Test #70



Lexan 3  
Before



Lexan 3  
After



➤ The reflectivity result decrease by 0.3%