

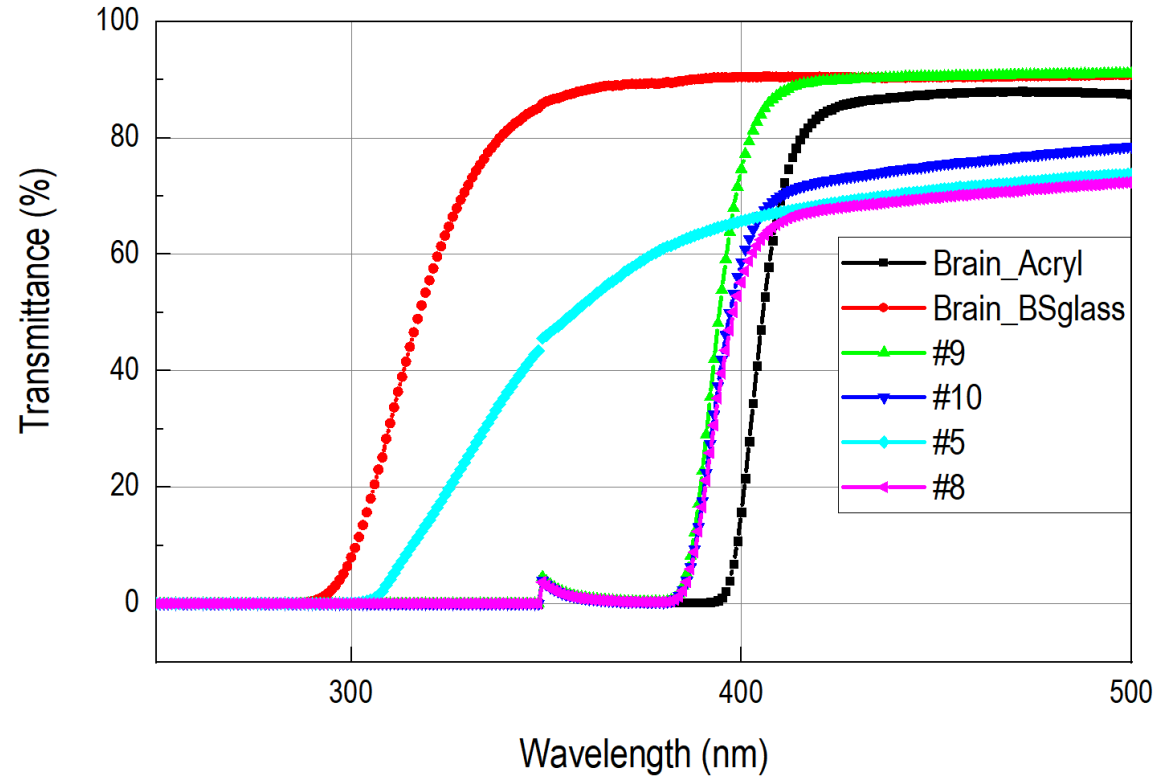
Lightguide transmittance and SciFi PL

SEO Bo Gyeong, KIM Shin Hyung, SHIN Jun Seop

Department of Physics, Kyungpook National University

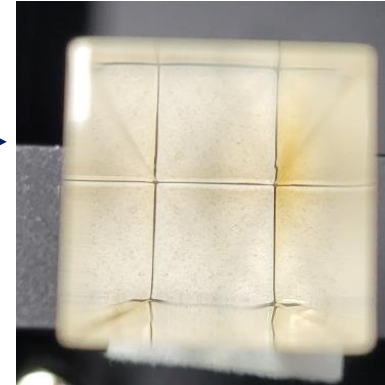
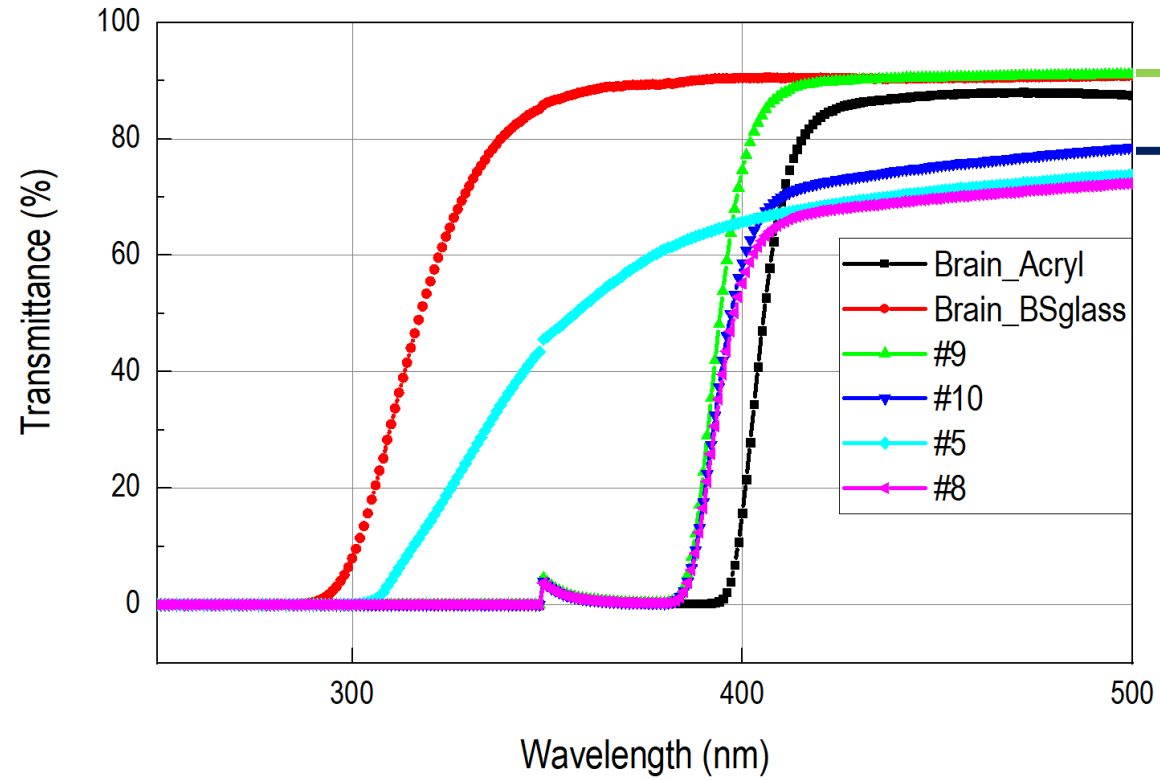


Recap) Lightguide transmittance



No.	Company	Material	Flamed
#1	BrainShift	Borosilicate Glass	
#1	BrainShift	Cast acrylic	
#3	Ross Machine	Extruded acrylic	
#5	Ross Machine	Extruded acrylic	
#6	Ross Machine	Extruded acrylic	
#7	Ross Machine	Cast acrylic	
#8	Ross Machine	Cast acrylic	
#9	Ross Machine	Cast acrylic	Top and Bottom
#10	Ross Machine	Cast acrylic	All sides





#10, All sides



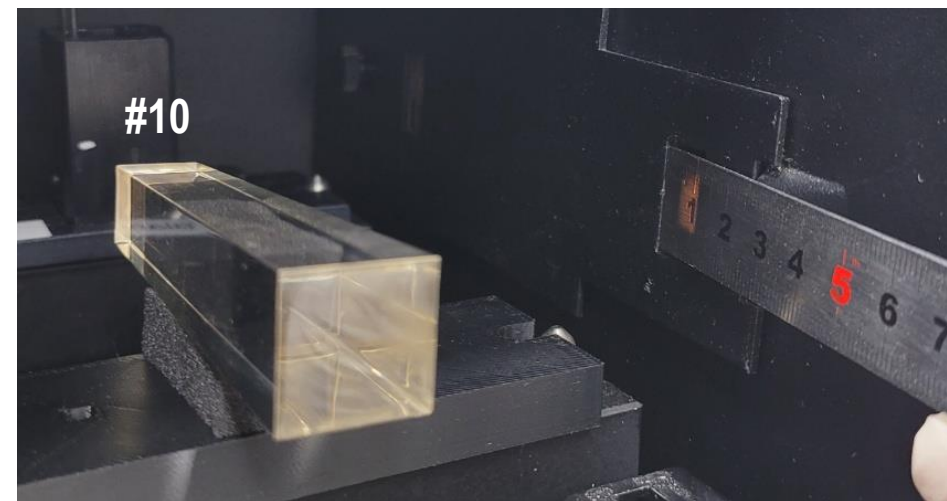
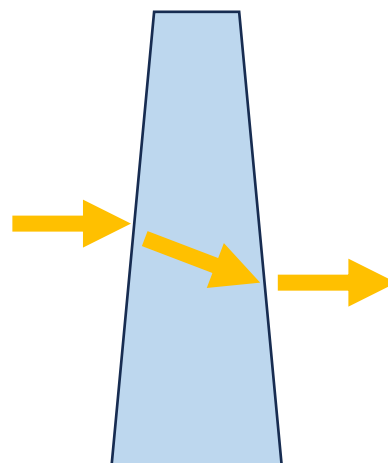
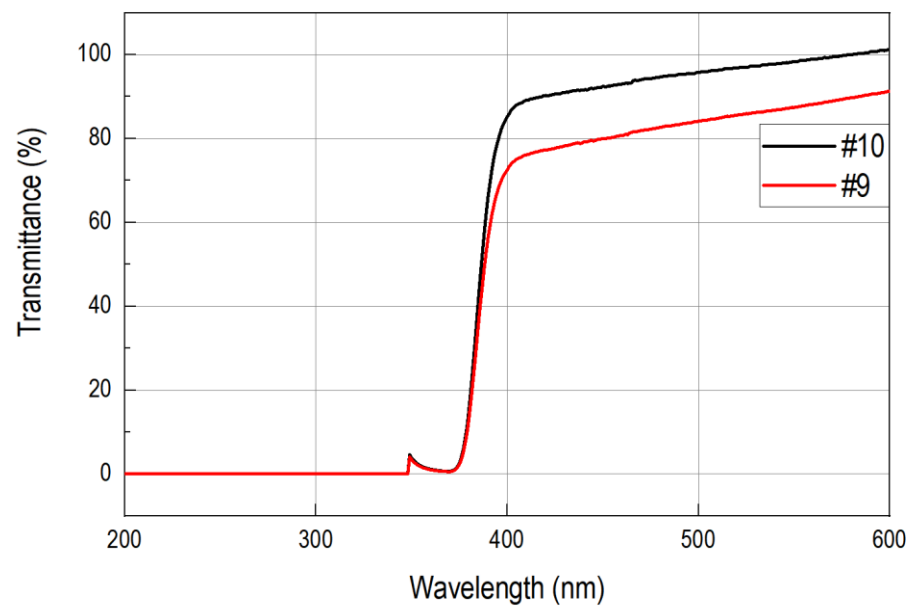
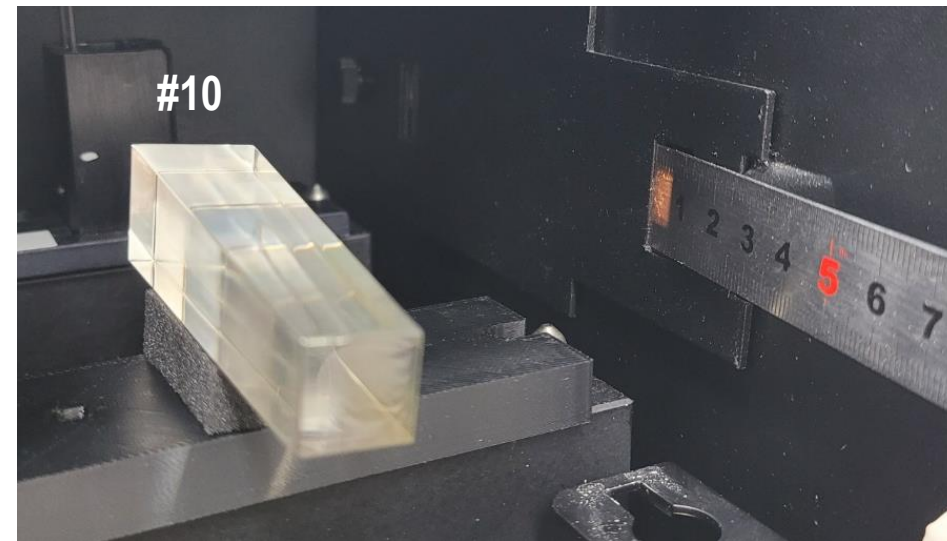
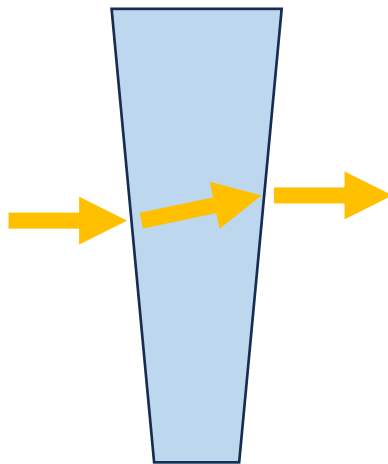
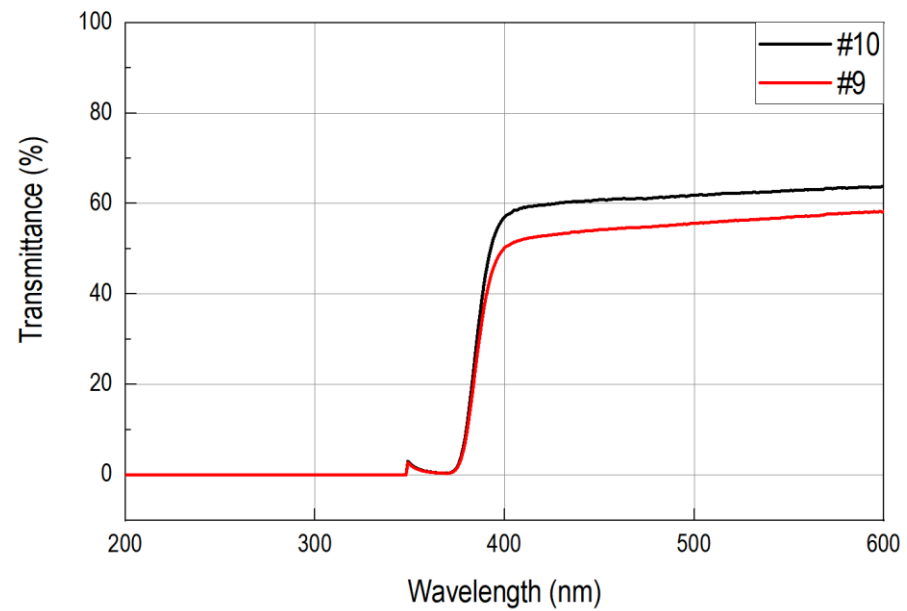
#9, Top and bottom

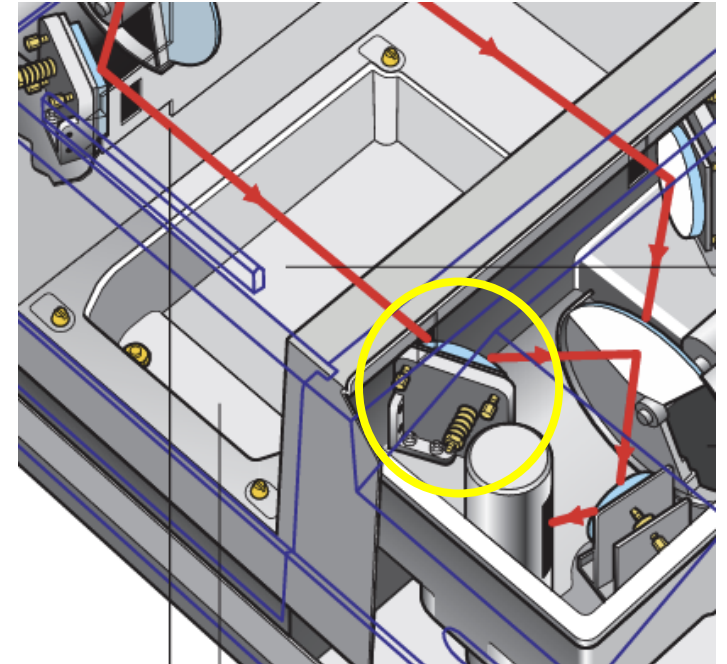
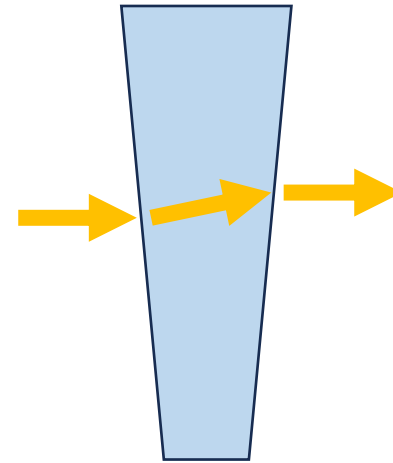
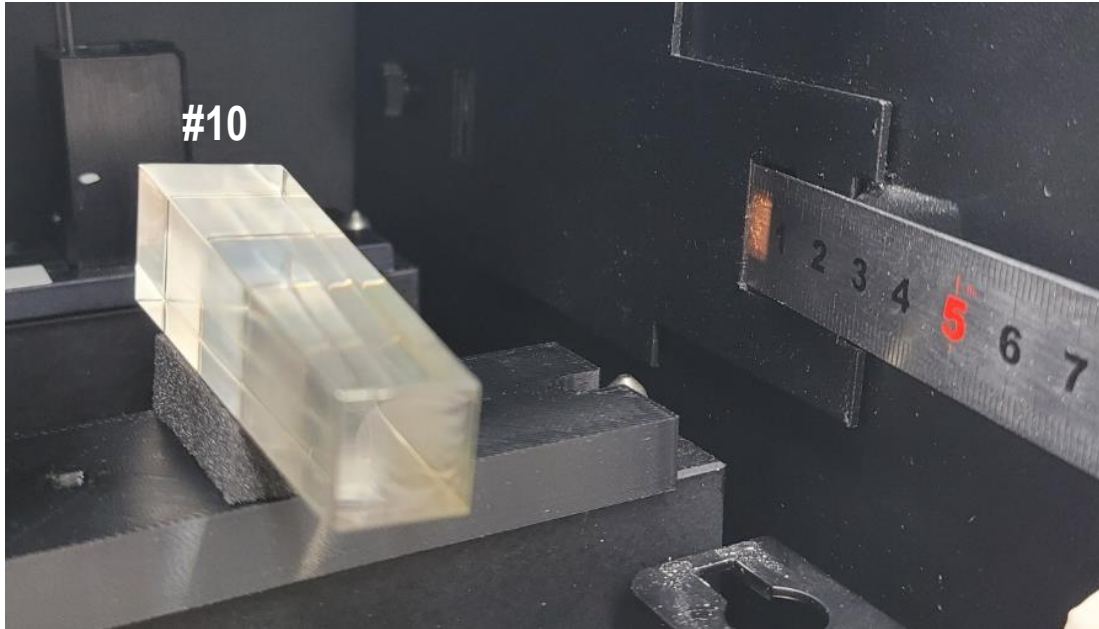
All sides flamed : yellowish
Top & bottom : clear

#9	Ross Machine	Cast acrylic	Top and Bottom
#10	Ross Machine	Cast acrylic	All sides

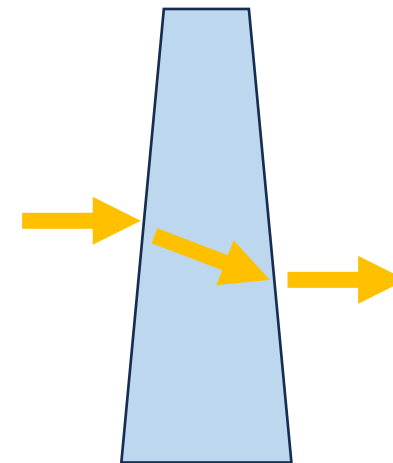
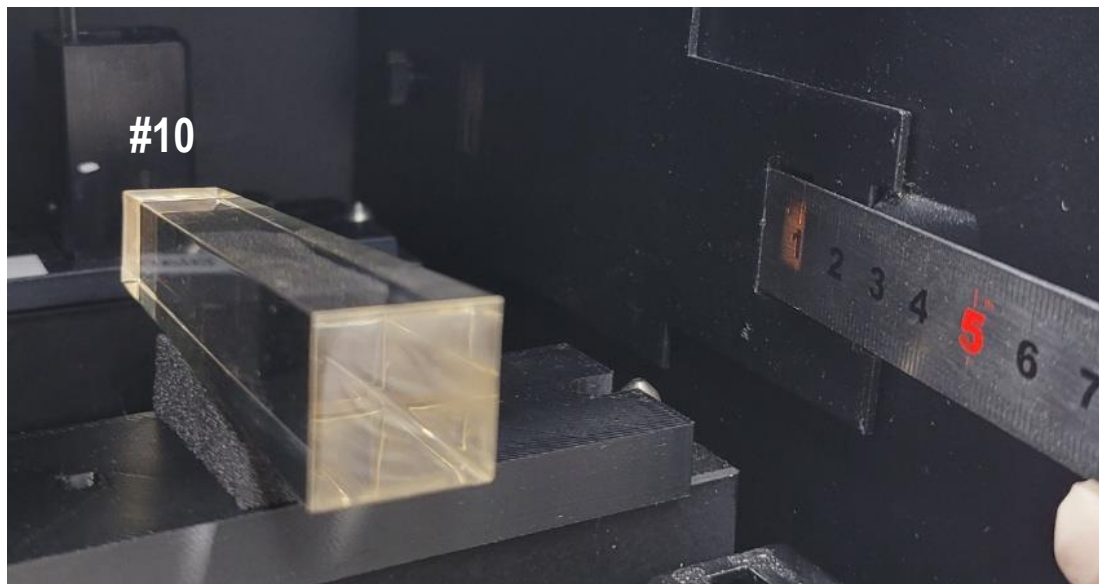


Side transmittance

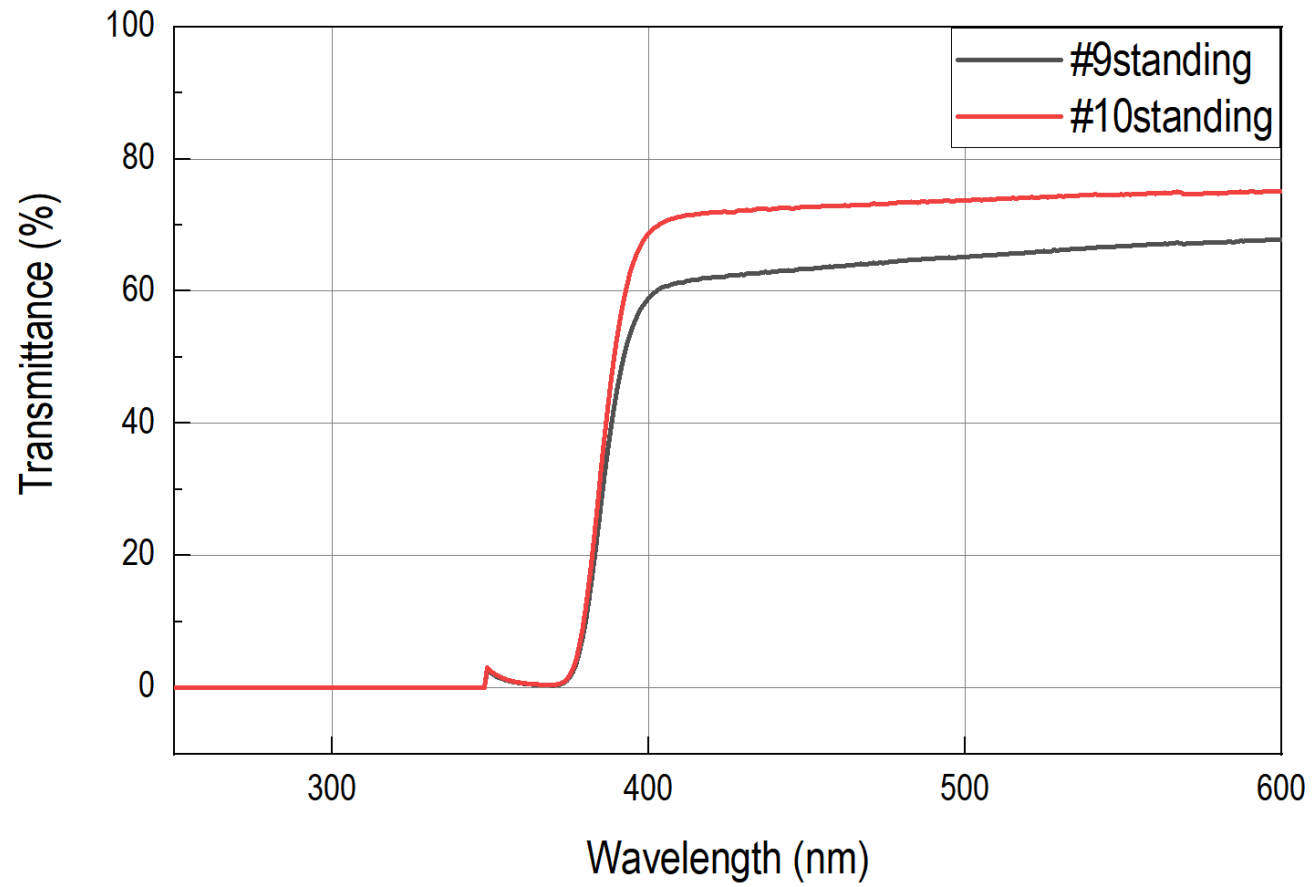




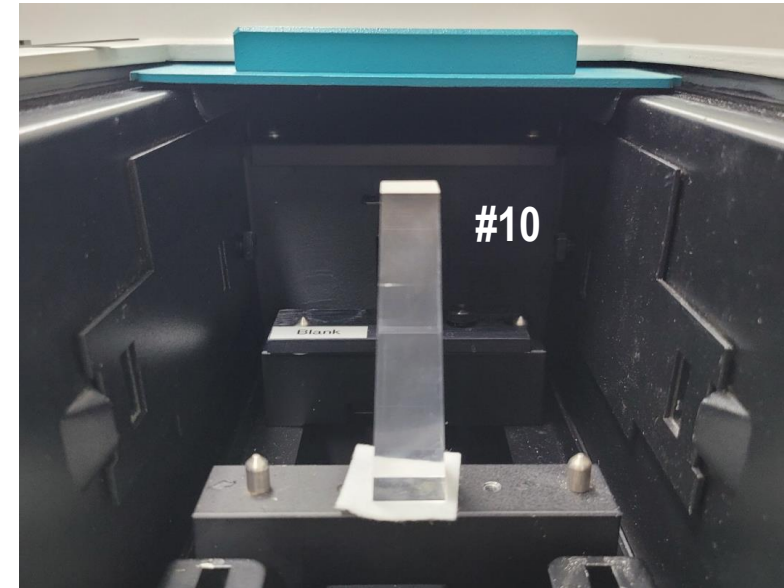
Beam position change about 5 mm

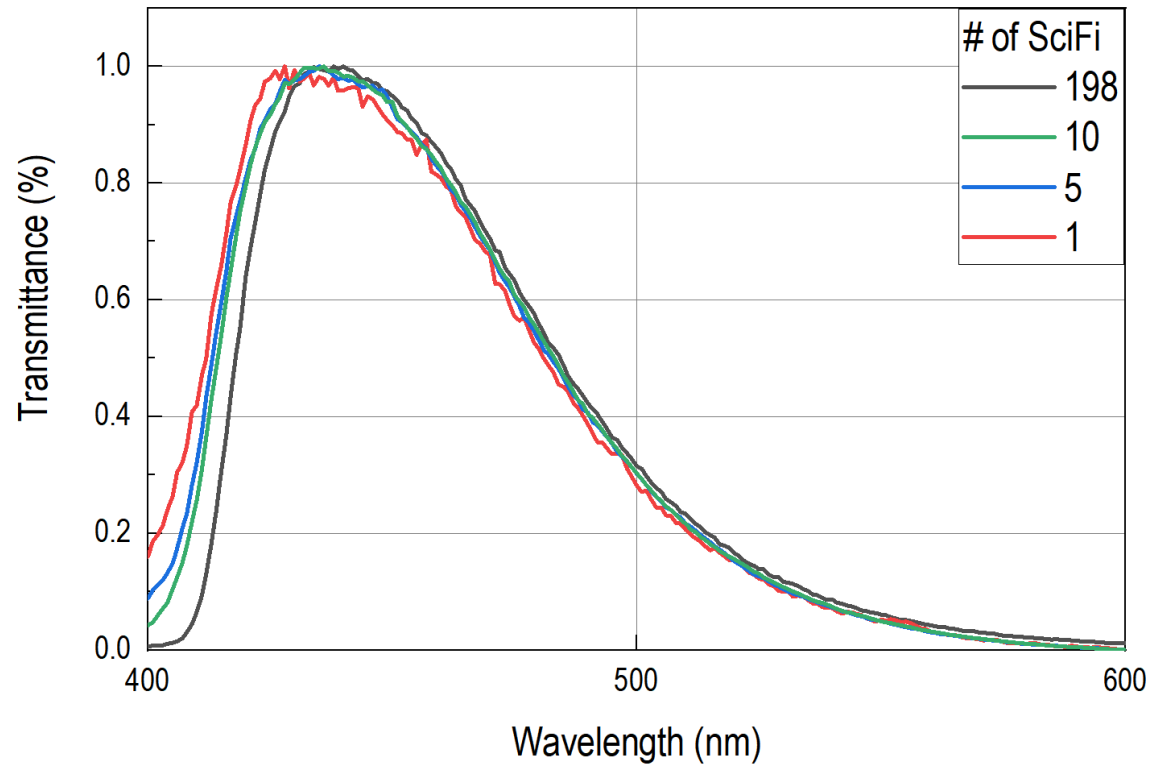


**Beam going downwards
have better gain**

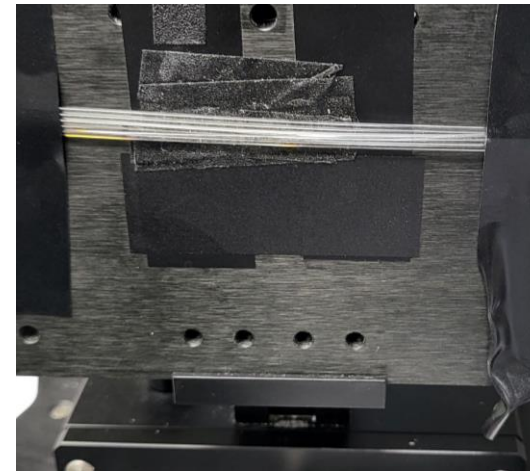


Not sure if transmittance measurement of tilted face is reliable

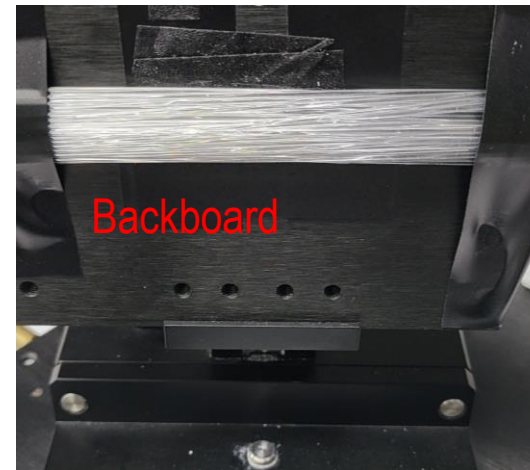




More fibers → graph less noisy
→ peak wavelength is same
→ difference at short wavelength



10 fibers

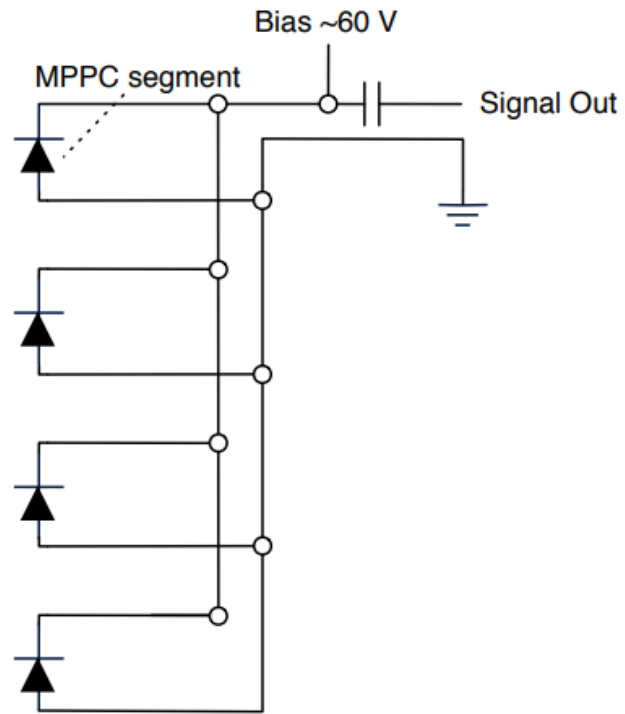


198 fibers

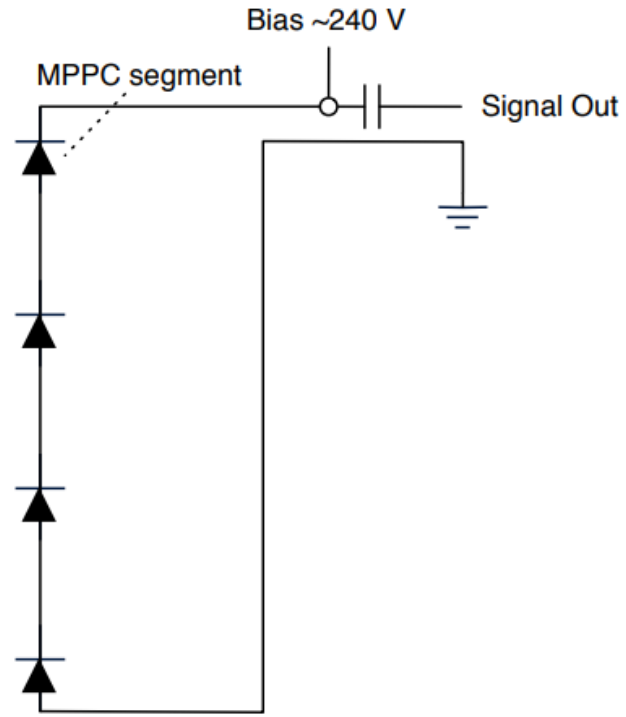




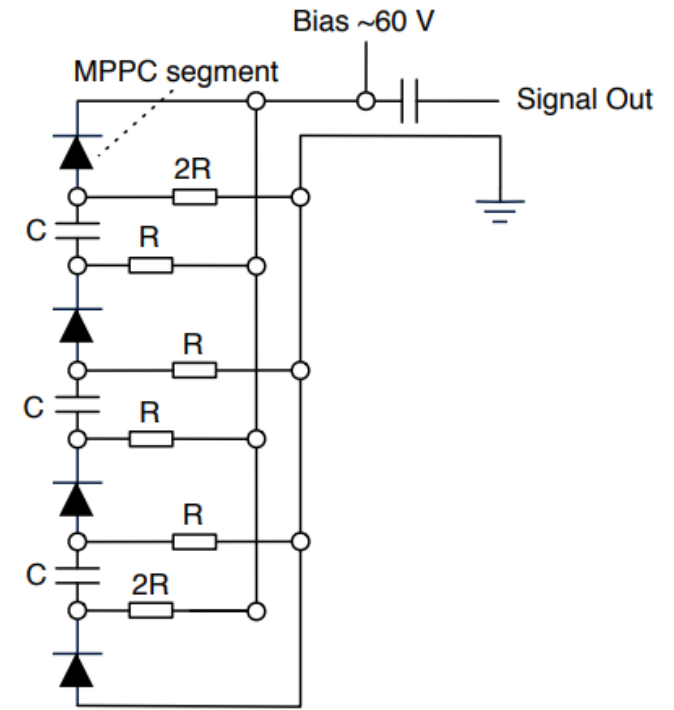
HGCROC summing circuit



(a) Parallel



(b) Series



(c) Hybrid

