

# Smalyukh Lab Laser Safety

- ▶ **Visible and/or Invisible Radiation including Ti:Sapphire laser (680-1080 nm, max. 4W), Ytterbium fiber lasers (1064 nm, 5W & 10W), Multiline Ar-ion laser (458, 488, 515 nm, max. 10mW), He-Ne lasers (543, 633 nm, max 10mW)**
- ▶ **Try to do active shielding around your working area.**
- ▶ **Wear always proper laser safety goggles**
  - How to choose a proper goggles?

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# Laser Safety Goggles

For UV Curing System

190-450nm at OD5+  
820-1720nm at OD3+  
For UV Curing System &  
UV Lamp on microscope



190-400nm at OD6+  
720-1090nm at OD5+  
750-1064nm at OD7+  
For UV & NIR, Ti:Sapphire laser,  
Trapping laser (1064nm)



190-534nm + 960-1064nm at OD7+  
850-925nm at OD5+  
925-1070nm at OD6+  
For UV & NIR, Trapping laser  
(1064nm), Raman laser (532nm)



190-375nm at OD>9  
800-840nm at OD>3  
841-869nm at OD>4  
870-1080nm at OD>5  
1064nm at OD>7  
9,000-11,100nm at OD>5  
10600nm at OD>7  
For UV & NIR, Trapping  
laser (1064nm)



Color	Wavelength Range and Optical Density	Additional Specs	Use with
Yellow-Green (uvex)	190-375nm at OD>9 800-840nm at OD>3 841-869nm at OD>4 870-1080nm at OD>5 1064nm at OD>7 9,000-11,100nm at OD>5 10600nm at OD>7	LSK-YAG /CO2 1256601 VLT52%	UV curing, UV lamp on microscope Optical trapping (1064nm)
Green	190-450nm at OD5+ 820-1720nm at OD3+	180-315 D L6 +R L4 316-400 DR L4 770-820 + 1401-1840 DIR L2 866-1145 DIR L4 940-1064 IR L5 1065-1145 IR L4 821-865 + 1146-1400 DIR L3 NOIR	UV curing, UV lamp on microscope
Brown	190-400nm at OD6+ 720-1090nm at OD5+ 750-1064nm at OD7+	190-315 D L6 + R L4 >315-400 DR L4 720-1075 DM L5 720-750 + >1064-1075 IR L5 750-1064 IR L7 NOIR	UV curing, UV lamp on microscope NIR, Ti-Sapphire Laser
Orange	190-534nm + 960-1064nm at OD7+ 850-925nm at OD5+ 925-1070nm at OD6+	35%VLT 180-315 D L7 + R L4 >315-534 D L4 + IRM L6 925-1064 D L5 + IRM L6 980-1064 IR L7 NOIR	UV curing, UV lamp on microscope Optical trapping (1064nm) Raman (532nm)