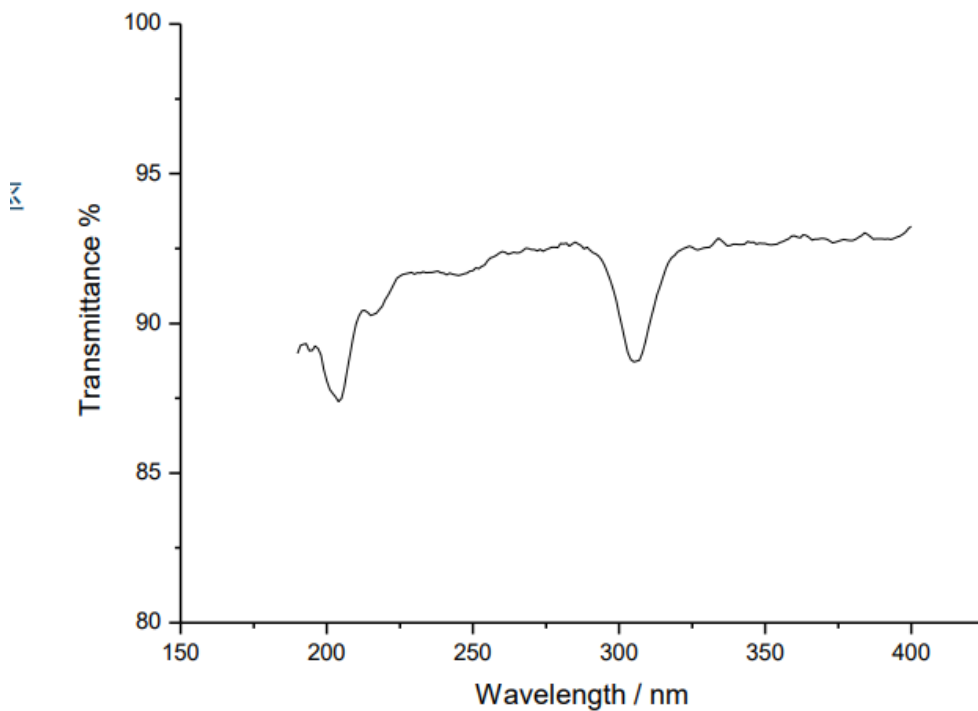
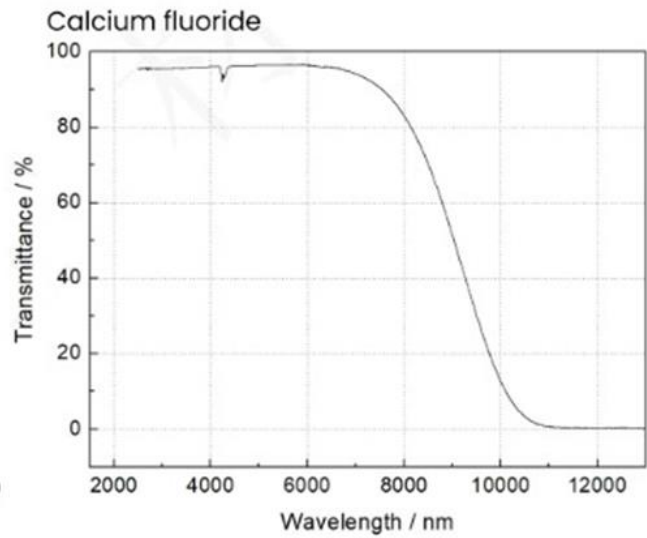
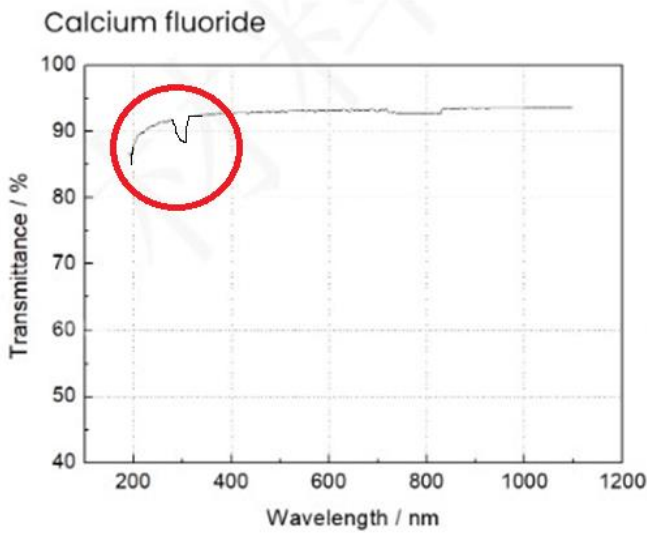


DATA SHEET

IR Grade Calcium Fluoride (CaF₂)

Calcium Fluoride (CaF₂) IR Grade material transmits high transmittance in infrared radiation. Main difference of the IR grade will be absorption @205 & 306nm but full transmission in the IR region.



DATA SHEET
IR Grade Calcium Fluoride (CaF₂)

Optical Properties	
Transmission Range	0.13-10 μ m
Transmittance	>94%@193nm-7.87 μ m absorption @205 & 306nm
Refractive Index	1.4288@2.5 μ m 1.39908@5 μ m
Reflection Loss	5.4%@5 μ m(both surfaces)
Absorption Coefficient	7.8 \times 10 ⁻⁴ @2.7 μ m
Structure	Cubic Crystal System
Cleavage Planes	<111>
Physical Properties	
Density [g/cm ³]	3.18
Melting Point [°C]	1420
Thermal Conductivity [W/(m \times K)]	9.71 @ 293K
Thermal Expansion [10 ⁻⁶ /K]	18.5 @ 273K
Knoop Hardness [kg/mm ²]	158.3
Specific Heat Capacity [J/(kg \times K)]	854
Dielectric Constant	6.76 @ 1 MHz
Young's Modulus (E) [GPa]	75.8
Shear Modulus(G) [GPa]	33.77
Bulk Modulus(K) [GPa]	82.71
Poisson Coefficient	0.26
Chemical Properties	
Solubility / g/L	0.016g @ 20°C
Molecular Weight / g/mol	78.0748