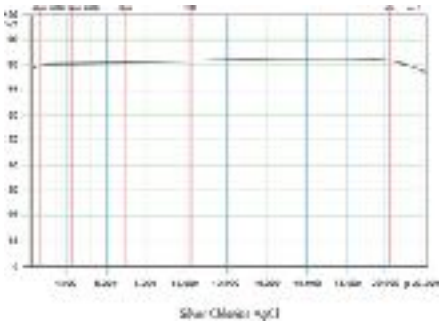
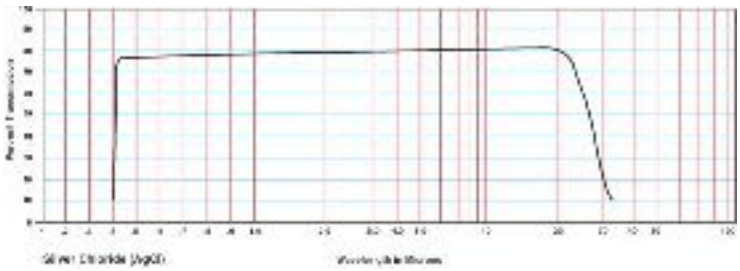
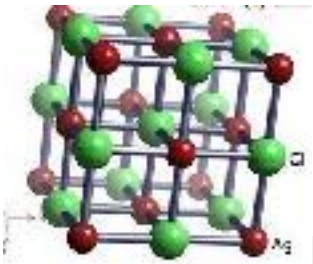
Optical Materials
Silver Chloride (AgCl) Optical Crystals

Silver Chloride (AgCl) is commonly used for infrared transmission windows in gas and liquid sample cells used with infrared and FTIR spectrophotometers in place of Potassium Bromide (KBr) with aqueous samples that would attack KBr optics. It has a wide transmission range and is relatively insoluble in water, but it darkens when exposed to light

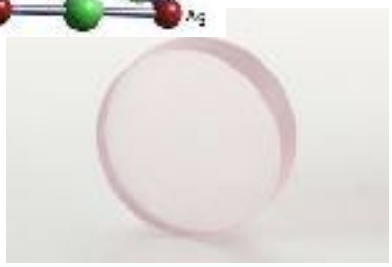






Optical Properties- Silver Chloride (AgCl) Optical Crystals

Transmission Range: 400 nm to 30µm
Refractive Index: 1.978 at 10.6µm
Reflection Loss: 19.5% at 10µm (2 surfaces)



Physical Properties- Silver Chloride (AgCl) Optical Crystals

Melting Point: 457° C
Young's Modulus: 19.98 GPa
Apparent Elastic Limit: 3800 psi
Structure: Cubic, no cleavage, cold flows

Chemical Properties- Silver Chloride (AgCl) Optical Crystals

Solubility: 0.52×10^{-3}gm/100gm H_2O at 50° C

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