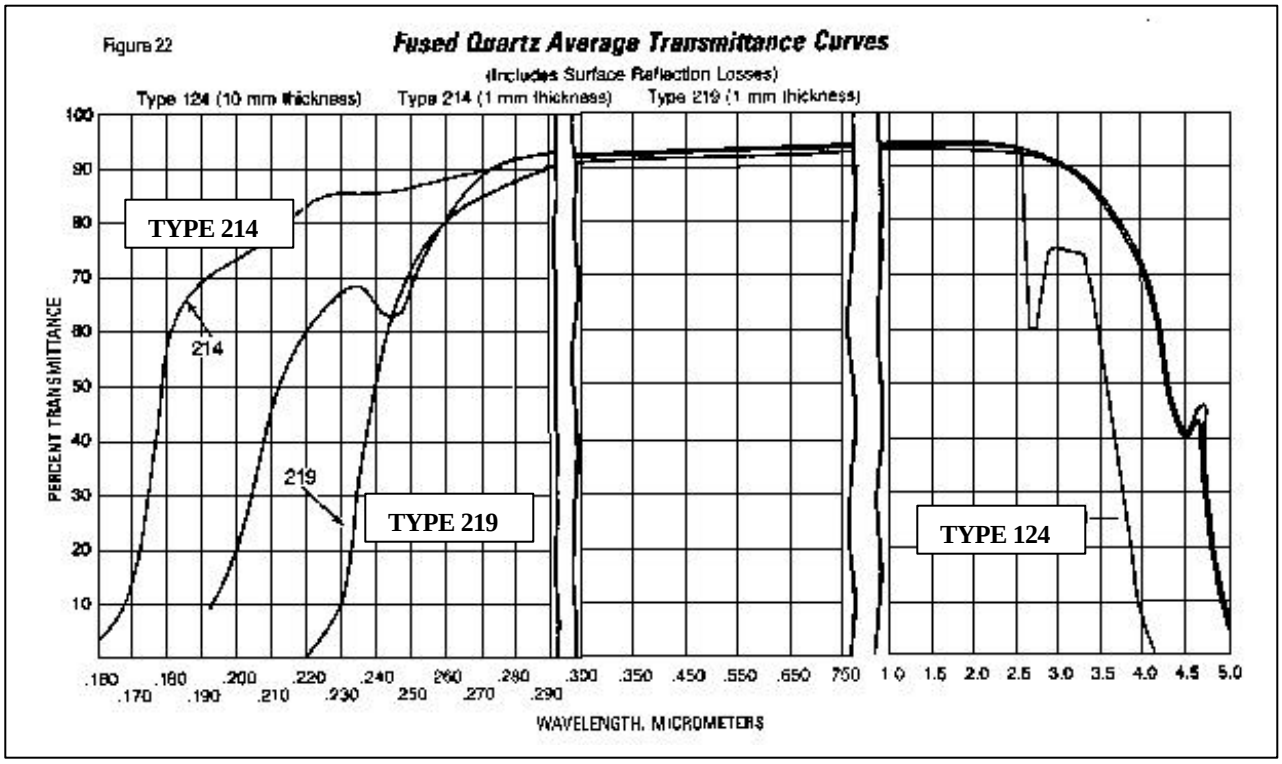
Quartz Optical Properties

UV Cutoff

As the transmission curve in below illustrates, GE **Type 214** fused quartz has a UV cutoff (1 mm thickness) at < 160 nm, a small absorption at 245 nm and no appreciable absorption due to hydroxyl ions. **Type 219**, which contains approximately 100 ppm Ti, has a UV cutoff at ~230 nm for a 1 mm thick sample. The IR edge falls between 4.5 and 5.0 um for a 1 mm thick sample. The chart details the percent transmittance for Types 214, 124 and 219 fused quartz, including the losses caused by reflections at both surfaces. Values represent a 1 mm thick Type 214 sample and a 10 mm thick Type 124 sample. **Type 124,** fused quartz is a very efficient material for the transmission of infrared radiation. Its infrared transmission extends out to about 4 micrometers with little absorption in the "water band" at 2.73 um.



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