Claims:

1. A cuvette for holding a lens during optical measurements and testing, the cuvette comprising:

a top window, a bottom window, a first side wall, a second side wall, and a third side wall defining an interior chamber for receiving a lens, wherein at least one of the windows is made from an optically clear material with a thermal conductivity of at least 5 W/m-K,

wherein the top window comprises an optical zone exterior and interior surface parallelism of no more than 10 arc-seconds, flatness of L/4-L/10 at 0.633 μm and peak-to-valley roughness of no more than 10 nm.

2. The cuvette of Claim 1, wherein the at least one window with thermal conductivity of at least 5 W/m-K comprises a sapphire material.

3. The cuvette of Claim 1, wherein at least one of the side walls is made from an optically clear material with a thermal conductivity of at least 5 W/m-K.

4. The cuvette of Claim 3, wherein the at least one side wall made from an optically clear material with a thermal conductivity of at least 5 W/m-K is made from sapphire.

5. A cuvette for optical analyses of a lens, comprising:

a top window and a bottom window, wherein at least one of the windows is made of an optically clear material with a thermal conductivity of at least 5 W/m-K and at least 85% transparency,

wherein the top window comprises an optical zone exterior and interior surface parallelism of no more than 10 arc-seconds, flatness of L/4-L/10 at 0.633 μm and peak-to-valley roughness of no more than 10 nm.

6. The cuvette of Claim 5, wherein at least one of the windows is made of an optically clear material with a thermal conductivity between 5 W/m-K and 42 W/m-K and at least 85% transparency at about 0.5 – 2 μm wavelengths.

7. The cuvette of Claim 5, wherein at least one of the windows comprises sapphire.

8. The cuvette of Claim 5, further comprising a first side wall, a second side wall, and a third side wall.

9. The cuvette of Claim 5, further comprising a backstop for consistent placement of the lens during optical measurements.

10. The cuvette of Claim 5, further comprising a pedestal fixed to the bottom window.

11. The cuvette of Claim 10, wherein the pedestal is made from a material with at least 5 W/m-K of thermal conductivity.

12. A cuvette for holding a lens for optical measurements, comprising:

a top window insert,

a bottom window insert, and

a unitary body frame having a top surface and a bottom surface, wherein the unitary body frame comprises a first opening on the top surface configured for receiving the top window insert and a second opening on the bottom surface configured for receiving the bottom window insert,

wherein the top and bottom window inserts are made from an optically clear material, and

wherein the unitary frame body is made of an optically opaque material with at least 5 W/m-K of thermal conductivity,

wherein the top window insert comprises an optical zone exterior and interior surface parallelism of no more than 10 arc-seconds, flatness of L/4-L/10 at 0.633 μm and peak-to-valley roughness of no more than 10 nm.

13. The cuvette of Claim 12, wherein the optically opaque material for the unitary frame body is stainless steel.

14. The cuvette of Claim 12, wherein the optically opaque material for the unitary frame body is anodized aluminum.