What is Claimed

[Claim 1] A quartz glass crucible characterized in that a peak of a distribution of a total concentration of Na, K, and Ca in a depth direction from an inner surface of the crucible is present within a depth range of 16 μm or more and 32 μm or less from the inner surface, and

an average value of a total concentration of Li, Al, Na, K, and Ca within a depth range of 0 μm or more and 8 μm or less from the crucible inner surface is 3.6×10^{16} atoms/cc or more and 5.5×10^{17} atoms/cc or less,

the peak value of the total concentration of Na, K, and Ca within the range of 16 μm or more and 32 μm or less from the inner surface is 2 times or more and 19 times or less an average value of the total concentration of Na, K, and Ca within a depth range of 0 μm or more and 8 μm or less from the inner surface,

an average value of the total concentration of Na, K, and Ca within a depth range of 32 μm or more and 1000 μm or less from the inner surface is 0.6 times or more and 1 time or less the average value of the total concentration of Na, K, and Ca within a depth range of 0 μm or more and 8 μm or less from the inner surface, and

a total concentration of Na, K, and Ca within a depth range of 32 μm or more and 1000 μm or less from the inner surface has a negative concentration gradient of 8.2×10^{10} atoms/cc/μm or less with the depth direction as a positive direction.

[Claim 2] The quartz glass crucible according to Claim 1 comprising:

a transparent layer made of silica glass containing no bubbles and constituting the inner surface; and

a bubble layer made of silica glass containing a large number of bubbles and provided outside the transparent layer, wherein

a thickness of the transparent layer is 1 mm or more.