CLAIMS

1. A microcrystalline glass, characterized in that the microcrystalline glass comprises a lithium disilicate crystalline phase, wherein the lithium disilicate crystalline phase has a higher weight percentage than other crystalline phases present in the microcrystalline glass; the lithium disilicate crystalline phase accounts for more than 70 weight percentage (wt%) of all crystalline phases of the microcrystalline glass; and the microcrystalline glass is transparent in a visible light range;

in terms of molar percentage of oxides, a composition of the microcrystalline glass comprises:

SiO_2: 58.00mol%-63.39mol%, Al_2O_3: 0.00 mol%-2.00 mol%, P_2O_5: 1.50 mol%-3.00 mol%, ZrO_2: 3.00 mol%-6.00 mol%, MgO: 0.00 mol%-2.00 mol%, ZnO: 0.00 mol%-2.00 mol%, Na_2O: 0.00 mol%-2.00 mol%, K_2O: 0.00 mol%-1.00 mol%, Li_2O: 27.00 mol%-32.00 mol%, CaO: 0.00 mol%-5.00 mol%, B_2O_3: 0.00 mol%-1.00 mol%, and SrO: 0.00 mol%-2.00 mol%; and

in terms of contents of various oxides represented by molar percentage in the composition of the microcrystalline glass, the composition of the microcrystalline glass satisfies: $2.07 \leq SiO_2 / Li_2O \leq 2.40$, $0.25 < ZrO_2 / (100\% - 3 \times Li_2O) \leq 0.50$, $0.50 \leq (ZrO_2\text{-}Na_2O) / (SiO_2 - 2 \times Li_2O) \leq 6.20$, $0.060 \leq ZrO_2 / SiO_2 \leq 0.100$.

2. The microcrystalline glass according to claim 1, wherein in terms of the contents of the various oxides represented by molar percentage in the composition of the microcrystalline glass, the composition of the microcrystalline glass further satisfies:

$0.90 \leq SiO_2 + Li_2O \leq 0.96$; and/or

$Al_2O_3 / SiO_2 \leq 0.030$.

3. The microcrystalline glass according to claim 1, wherein in terms of the contents of the various oxides represented by molar percentage in the composition of the microcrystalline glass, the composition of the microcrystalline glass further satisfies:

$0.31 \leq ZrO_2 / (CaO + ZrO_2 + Al_2O_3) \leq 1.50$; and/or

$0.25 < ZrO_2 / (100\% – 3 \times Li_2O) \leq 0.48$; and/or

$0.060 \leq ZrO_2 / SiO_2 \leq 0.095$.

4. The microcrystalline glass according to claim 1, wherein in terms of the contents of the various oxides represented by molar percentage in the composition of the microcrystalline glass, the composition of the microcrystalline glass further satisfies:

$0.50 \leq (ZrO_2 - Na_2O) / (SiO_2 - 2 \times Li_2O) \leq 3.00$.

5. The microcrystalline glass according to claim 1, wherein in terms of molar percentage of the oxides, in the microcrystalline glass:

a content of SiO_2 is 60.00 mol%-63.39 mol%; and/or

a content of Li_2O is 27.50 mol%-31.00 mol%; and/or

a content of ZrO_2 is 3.20 mol%-6.00 mol%; and/or

a content of P_2O_5 is 1.50 mol%-2.50 mol%; and/or

a content of Na_2O is 0.00 mol%-1.00 mol%; and/or

a content of CaO is 0.00 mol%-4.00 mol%.

6. The microcrystalline glass according to claim 5, wherein in terms of molar percentage of the oxides, in the microcrystalline glass:

the content of SiO_2 is 60.50 mol%-63.00 mol%; and/or

the content of Li_2O is 27.50 mol%-30.50 mol%; and/or

the content of ZrO_2 is 4.00 mol%-6.00 mol%; and/or

the content of Na_2O is 0.00 mol%-0.50 mol%; and/or

the content of CaO is 0.00 mol%-2.50 mol%.

7. The microcrystalline glass according to claim 1, wherein in terms of molar percentage of the oxides, in the microcrystalline glass: a sum of contents of Na_2O and K_2O is smaller than 1.00 mol%.

8. The microcrystalline glass according to any one of claims 1-7, wherein a crystallinity of the microcrystalline glass is 30.00 wt%-90.00 wt%; and/or in the microcrystalline glass, an average crystal size is ≤ 100 nm.

9. The microcrystalline glass according to any one of claims 1-7, wherein at a thickness of 0.5 mm, b value of the microcrystalline glass is ≤ 1.0; and/or

at the thickness of 0.5 mm, for light with a wavelength of 550 nm, a transmittance of the microcrystalline glass is ≥ 85.00%.

10. A transparent chemically strengthened microcrystalline glass, characterized in that a composition at a center or in a tensile stress layer of the chemically strengthened microcrystalline glass is identical to that of the microcrystalline glass according to any one of claims 1-9, and the chemically strengthened microcrystalline glass comprises a compression stress layer region extending from a surface of the chemically strengthened microcrystalline glass to a compression depth, and has tensile stress in an interior of the chemically strengthened microcrystalline glass; the chemically strengthened microcrystalline glass has CT_LD of 64,439 MPa/mm-100,000 MPa/mm, wherein CT_LD is tensile stress linear density.

11. The chemically strengthened microcrystalline glass according to claim 10, wherein the chemically strengthened microcrystalline glass comprises a lithium disilicate crystalline phase, wherein the lithium disilicate crystalline phase has a higher weight percentage than other crystalline phases present in the chemically strengthened microcrystalline glass; in terms of molar percentage of the oxides, the composition at the center or in the tensile stress layer of the chemically strengthened microcrystalline glass comprises: SiO_2: 58.00 mol%-63.39 mol%, Al_2O_3: 0.00 mol%-2.00 mol%, P_2O_5: 1.50 mol%-3.00 mol%, ZrO_2: 3.00 mol%-6.00 mol%, MgO: 0.00 mol%-2.00 mol%, ZnO: 0.00 mol%-2.00 mol%, Na_2O: 0.00 mol%-2.00 mol%, K_2O: 0.00 mol%-1.00 mol%, Li_2O: 27.00 mol%-32.00 mol%, CaO: 0.00 mol%-5.00 mol%, B_2O_3: 0.00 mol%-1.00 mol%, and SrO: 0.00 mol%-2.00 mol%; and

in terms of contents of the oxides expressed by molar percentage, the composition at the center or in the tensile stress layer of the chemically strengthened microcrystalline glass satisfies: $2.07 \leq SiO_2 / Li_2O \leq 2.40$, $0.25 < ZrO_2 / (100\% - 3 \times Li_2O) \leq 0.50$, $0.50 \leq (ZrO_2 - Na_2O) / (SiO_2 - 2 \times Li_2O) \leq 6.20$, $0.060 \leq ZrO_2 / SiO_2 \leq 0.100$.

12. The chemically strengthened microcrystalline glass according to claim 10 or 11, wherein in terms of contents of the oxides expressed by molar percentage, the composition at the center or in the tensile stress layer of the chemically strengthened microcrystalline glass further satisfies:

$0.90 \leq SiO_2 + Li_2O \leq 0.96$; and/or

$Al_2O_3 / SiO_2 \leq 0.030$; and/or

$0.31 \leq ZrO_2 / (CaO + ZrO_2 + Al_2O_3) \leq 1.50$; and/or

$0.060 \leq ZrO_2 / SiO_2 \leq 0.095$; and/or

$CaO + Al_2O_3 \leq 0.065$; and/or

$(CaO + Al_2O_3) / Li_2O \leq 0.25$; and/or

$Na_2O / SiO_2 \leq 0.05$.

13. The chemically strengthened microcrystalline glass according to claim 10 or 11, wherein in terms of molar percentage of the oxides, the composition at the center or in the tensile stress layer of the chemically strengthened microcrystalline glass comprises:

a content of SiO_2 being 60.00 mol%-63.39 mol%; and/or

a content of Li_2O being 27.50 mol%-31.00 mol%; and/or

a content of ZrO_2 being 3.20 mol%-6.00 mol%; and/or

a content of P_2O_5 being 1.50 mol%-2.50 mol%; and/or

a content of Na_2O being 0.00 mol%-1.00 mol%; and/or

a content of CaO being 0.00 mol%-4.00 mol%.

14. The chemically strengthened microcrystalline glass according to claim 10 or 11, wherein the chemically strengthened microcrystalline glass has |CT_CV| of 120 MPa-320 MPa.

15. An electronic device, characterized in that the electronic device comprises the microcrystalline glass according to any one of claims 1-9 or comprises the chemically strengthened microcrystalline glass according to any one of claims 10-14.