CLAIMS

1. A high-lithium-content microcrystalline glass, characterized in that the high-lithium-content 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 high-lithium-content microcrystalline glass; and the high-lithium-content microcrystalline glass is transparent in a visible light range;

in terms of molar percentage of oxides, a composition of the high-lithium-content microcrystalline glass comprises:

SiO_2: 60.00 mol%-69.50 mol%, Al_2O_3: 0.00 mol%-2.00 mol%, P_2O_5: 1.50 mol%-3.00 mol%, ZrO_2: 2.00 mol%-6.00 mol%, MgO: 0.00 mol%-2.00 mol%, ZnO: 0.00 mol%-2.00 mol%, Na_2O: 0.00 mol%-3.00 mol%, K_2O: 0.00 mol%-1.00 mol%, Li_2O: 27.50 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 high-lithium-content microcrystalline glass, the composition of the high-lithium-content microcrystalline glass satisfies: $2.07 \leq SiO_2 / Li_2O \leq 2.30$, $0.20 \leq 2.25 \times Li_2O - 8 \times ZrO_2 - 0.2 \times CaO \leq 0.41$, $0 \leq (CaO + MgO + ZnO + Na_2O + K_2O) / (ZrO_2 + Li_2O) \leq 0.15$, and $0.25 \leq (2.2 \times ZrO_2 + 0.35 \times CaO + Na_2O) / Li_2O \leq 0.45$.

2. The high-lithium-content microcrystalline glass according to claim 1, wherein $0.21 \leq 2.25 \times Li_2O - 8 \times ZrO_2 - 0.2 \times CaO \leq 0.39$, and/or, $0.90 \leq SiO_2 + Li_2O \leq 0.95$.

3. The high-lithium-content microcrystalline glass according to claim 1, wherein $0.27 \leq (2.2 \times ZrO_2 + 0.35 \times CaO + Na_2O) / Li_2O \leq 0.43$.

4. The high-lithium-content microcrystalline glass according to claim 1, wherein $0 \leq (CaO + MgO + ZnO + Na_2O + K_2O) / (ZrO_2 + Li_2O) \leq 0.14$.

5. The high-lithium-content microcrystalline glass according to any one of claims 1-4, wherein in terms of the contents of the various oxides represented by molar percentage in the composition of the high-lithium-content microcrystalline

glass, the composition of the high-lithium-content microcrystalline glass satisfies: $0 \leq (CaO + SrO) / ZrO_2 \leq 1.50$; and/or, $0 \leq Al_2O_3 / (SiO_2 + Al_2O_3) \leq 0.03$.

6. The high-lithium-content microcrystalline glass according to any one of claims 1-4, wherein in terms of molar percentage of the oxides, in the high-lithium-content microcrystalline glass:

a content of SiO_2 is 60.00 mol%-65.00 mol%; and/or

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

a content of ZrO_2 is 3.00 mol%-6.00 mol%; and/or

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

a content of CaO is 0.00 mol%-4.00 mol%; and/or

a content of Na_2O is 0.00 mol%-1.00 mol%.

7. The high-lithium-content microcrystalline glass according to claim 6, wherein in terms of molar percentage of the oxides, in the high-lithium-content microcrystalline glass:

the content of SiO_2 is 61.00 mol%-63.50 mol%; and/or

the content of Li_2O is 28.00 mol%-30.50 mol%; and/or

the content of ZrO_2 is 3.50 mol%-6.00 mol%; and/or

the content of P_2O_5 is 1.60 mol%-2.10 mol%; and/or

the content of CaO is 0.00 mol%-2.00 mol%; and/or

the content of Na_2O is 0.00 mol%-1.00 mol%.

8. The high-lithium-content microcrystalline glass according to claim 7, wherein in terms of molar percentage of the oxides, in the high-lithium-content microcrystalline glass:

the content of SiO_2 is 62.00 mol%-63.00 mol%; and/or

the content of ZrO_2 is 4.00 mol%-5.00 mol%; and/or

the content of Na_2O is 0.00 mol%-0.50 mol%.

9. The high-lithium-content microcrystalline glass according to any one of claims 1-4, wherein in terms of the contents of the various oxides represented by molar percentage in the composition of the high-lithium-content microcrystalline glass, the composition of the high-lithium-content microcrystalline glass satisfies:

$0 \leq (CaO + MgO + ZnO + Na_2O + K_2O) / (ZrO_2 + Li_2O) \leq 0.10$; and/or

$0.90 \leq SiO_2 + Li_2O \leq 0.93$; and/or

$0 \leq (CaO + SrO) / ZrO_2 \leq 1.00$.

10. The high-lithium-content microcrystalline glass according to claim 9, wherein $0 \leq (CaO + SrO) / ZrO_2 \leq 0.70$.

11. A chemically strengthened microcrystalline glass, characterized in that the chemically strengthened microcrystalline glass is obtained by performing a chemical strengthening treatment on the high-lithium-content microcrystalline glass according to any one of claims 1-10, and a composition at a center or in a tensile stress layer of the chemically strengthened microcrystalline glass is identical to that of the high-lithium-content microcrystalline glass according to any one of claims 1-10, 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.

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

SiO_2: 60.00 mol%-69.50 mol%, Al_2O_3: 0.00 mol%-2.00 mol%, P_2O_5: 1.50 mol%-3.00 mol%, ZrO_2: 2.00 mol%-6.00 mol%, MgO: 0.00 mol%-2.00 mol%, ZnO: 0.00 mol%-2.00 mol%, Na_2O: 0.00 mol%-3.00 mol%, K_2O: 0.00 mol%-1.00 mol%, Li_2O: 27.50 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 expressed by molar percentage in the composition at the center or in the tensile stress layer of the chemically strengthened microcrystalline glass, the composition at the center or in the tensile stress layer of the chemically strengthened microcrystalline glass satisfies: $2.07 \leq SiO_2 / Li_2O \leq 2.30$,

$0.20 \leq 2.25 \times Li_2O - 8 \times ZrO_2 - 0.2 \times CaO \leq 0.41$, $0 \leq (CaO + MgO + ZnO + Na_2O + K_2O) / (ZrO_2 + Li_2O) \leq 0.15$, and $0.25 \leq (2.2 \times ZrO_2 + 0.35 \times CaO + Na_2O) / Li_2O \leq 0.45$.

13. The chemically strengthened microcrystalline glass according to claim 11, wherein the chemically strengthened microcrystalline glass has DOL_0 of 0.20 t-0.25 t, wherein DOL_0 is depth of a compression stress layer, and t is thickness of the chemically strengthened microcrystalline glass.

14. The chemically strengthened microcrystalline glass according to any one of claims 11-13, wherein the chemically strengthened microcrystalline glass has CS_50 of 150 MPa-280 MPa, wherein CS_50 refers to a compressive stress value at a depth of 50 μm from a main surface of the chemically strengthened microcrystalline glass.

15. An electronic device, characterized in that the electronic device comprises the high-lithium-content microcrystalline glass according to any one of claims 1-10 or comprises the chemically strengthened microcrystalline glass according to any one of claims 11-14.