CLAIMS

1. Glass for a substrate, which comprises, as represented by mol% based on the following oxides, from 66 to 77% of SiO_2, from 7 to 17% of Al_2O_3, from 0 to 7% of B_2O_3, from 0 to 9% of Li_2O, from 0 to 8% of Na_2O, from 0 to 3% of K_2O, from 0 to 13% of MgO, from 0 to 6% of CaO, from 0 to 5% of TiO_2 and from 0 to 5% of ZrO_2, wherein the total of contents of SiO_2, Al_2O_3 and B_2O_3 i.e. $SiO_2+Al_2O_3+B_2O_3$ is from 81 to 92%, the total of contents of Li_2O, Na_2O and K_2O i.e. $Li_2O+Na_2O+K_2O$ is from 3 to 9%, the total of contents of MgO and CaO i.e. MgO+CaO is from 4 to 13%, the total of contents of Na_2O, K_2O and CaO i.e. Na_2O+K_2O+CaO is from 0 to 10%, and the total of contents of TiO_2 and ZrO_2 i.e. TiO_2+ZrO_2 is from 0 to 5% wherein the Tg of the glass is at least 690°C.

2. The glass for a substrate according to Claim 1, wherein the ratio of the B_2O_3 content to the Al_2O_3 content i.e. B_2O_3/Al_2O_3 is at most 0.6.

3. The glass for a substrate according to Claim 1 or 2, wherein the ratio of Na_2O+K_2O+CaO to $SiO_2+Al_2O_3+B_2O_3$ i.e. $(Na_2O+K_2O+CaO)/(SiO_2+Al_2O_3+B_2O_3)$ is at most 0.125.

4. The glass for a substrate according to Claim 1, 2 or 3, wherein SiO_2 is at most 74%, Al_2O_3 is at least 8%, Li_2O is less than 2%, MgO is at most 11%, TiO_2 is at most 3%, ZrO_2 is at most 3%, $Li_2O+Na_2O+K_2O$ is at least 3.5%, MgO+CaO is from 5 to 12.5%, TiO_2+ZrO_2 is at most 3.5%, and $(MgO+CaO)/(SiO_2+Al_2O_3+B_2O_3)$ is at most 0.15.

5. The glass for a substrate according to Claim 1, 2, 3 or 4, which contains Li_2O or Na_2O.

6. The glass for a substrate according to Claim 1, 2, 3 or 4, wherein B_2O_3 is at most 3%, Li_2O is at least 2%, Na_2O is at most 4%, and $Li_2O+Na_2O+K_2O$ is at least 3.5%.

7. The glass for a substrate according to Claim 6, wherein $(MgO+CaO)/(SiO_2+Al_2O_3+B_2O_3)$ is from 0.04 to 0.16.

8. The glass for a substrate according to anyone of Claims 1 to 7, wherein the total of contents of the above components is at least 98%.

9. A glass substrate made of the glass for a substrate as defined in anyone of Claims 1 to 8.

10. The glass substrate according to Claim 9, which is used as a substrate for an information recording medium.

11. The glass substrate according to Claim 10, wherein the substrate for an information recording medium is a substrate for a magnetic disk.

12. A chemically tempered glass substrate obtained by chemically tempering a glass plate made of the glass for a substrate as defined in anyone of Claims 1 to 8.

13. The chemically tempered glass substrate according to Claim 12, which is used as a substrate for an information recording medium.

14. The chemically tempered glass substrate according to Claim 13, wherein the substrate for an information recording medium is a substrate for a magnetic disk.

15. A magnetic disk having a magnetic recording layer formed on the glass substrate as defined in Claim 11 or on the chemically tempered glass substrate as defined in Claim 14.

Claims:

1. Glass for a substrate, which comprises, as represented by mol% based on the following oxides, from 66 to 77% of SiO_2, from 7 to 17% of Al_2O_3, from 0 to 7% of B_2O_3, from 0 to 9% of Li_2O, from 0 to 8% of Na_2O, from 0 to 3% of K_2O, from 0 to 13% of MgO, from 0 to 6% of CaO, from 0 to 5% of TiO_2 and from 0 to 0.5% of ZrO_2, wherein the total of contents of SiO_2, Al_2O_3 and B_2O_3 i. e. $SiO_2+Al_2O_3+B_2O_3$ is from 81 to 92%, the total of contents of Li_2O, Na_2O and K_2O i.e. $Li_2O+Na_2O+K_2O$ is from 3 to 9%, the total of contents of MgO and CaO i.e. MgO+CaO is from 4 to 13%, the total of contents of Na_2O, K_2O and CaO i.e. Na_2O+K_2O+CaO is from 0 to 10%, and the total of contents of TiO_2 and ZrO_2 i.e. TiO_2+ZrO_2 is from 0 to 5% wherein the Tg of the glass is at least 690°C.

2. The glass for a substrate according to Claim 1, wherein the ratio of the B_2O_3 content to the Al_2O_3 content i.e. B_2O_3/Al_2O_3 is at most 0.6.

3. The glass for a substrate according to Claim 1 or 2, wherein the ratio of Na_2O+K_2O+CaO to $SiO_2+Al_2O_3+B_2O_3$ i.e. $(Na_2O+K_2O+CaO)/(SiO_2+Al_2O_3+B_2O_3)$ is at most 0.125.

4. The glass for a substrate according to Claim 1, 2 or 3, which contains Li_2O or Na_2O.

5. The glass for a substrate according to Claim 1, 2, 3 or 4, wherein B_2O_3 is at most 3%, Li_2O is at least 2%, Na_2O is at most 4%, and $Li_2O+Na_2O+K_2O$ is at least 3.5%.

6. The glass for a substrate according to Claim 5, wherein (MgO+CaO)/ $(SiO_2+Al_2O_3+B_2O_3)$ is from 0.04 to 0.16.

7. The glass for a substrate according to anyone of Claims 1 to 6, wherein the total of contents of the above components is at least 98%.

8. A glass substrate made of the glass for a substrate as defined in anyone of Claims 1 to 7.

9. The glass substrate according to Claim 8, which is used as a substrate for an information recording medium.

10. The glass substrate according to Claim 9, wherein the substrate for an information recording medium is a substrate for a magnetic disk.

11. A chemically tempered glass substrate obtained by chemically tempering a glass plate made of the glass for a substrate as defined in anyone of Claims 1 to 7.

12. The chemically tempered glass substrate according to Claim 11, which is used as a substrate for an information recording medium.

13. The chemically tempered glass substrate according to Claim 12, wherein the substrate for an information recording medium is a substrate for a magnetic disk.

14. A magnetic disk having a magnetic recording layer formed on the glass substrate as defined in Claim 10 or on the chemically tempered glass substrate as defined in Claim 13.