

TITLE : Glass-ceramic Substrate for an Information Storage
Medium and a Method for Manufacturing the Same

Abstract of the Disclosure

A glass-ceramic substrate for an information storage medium made of a glass-ceramics having a crystal phase dispersed in a glass matrix has a ratio of crystal phase (the amount of crystal) in the glass-ceramics is within a range from 50wt% to 70wt% and crystal grains having an average crystal grain diameter within a range from $0.10\mu\text{m}$ to $0.50\mu\text{m}$ are exposed on the surface of the substrate. The glass-ceramics substrate has Young's modulus within a range from 95GPa to 160GPa, specific gravity within a range from 2.40 to 2.80, and a ratio of Young's modulus to specific gravity within a range from 39GPa to 57GPa. The glass-ceramic substrate has a surface microstructure in which respective crystal grains present in a surface portion of the substrate are fixed to the surface portion with half or more in volume of the respective crystal grains being exposed above the surface of the glass matrix.