OPTICAL RECORDING MEDIUM

ABSTRACT

A phase change optical recording medium which enables optimum direct overwrite even under high speed high density conditions without degrading repetition durability or storage stability of recorded signals. To this end, the phase change optical recording medium has a recording layer formed at least of a phase change material and is recorded and/or reproduced with a laser light beam having a wavelength ranging between 380 nm and 420 nm. A ratio Ac/Aa, where Ac is the absorption rate of said recording layer in a crystalline state and Aa is the absorption rate of said recording layer in an amorphous state, is not less than 0.9, and a crystallization promoting layer promoting the crystallization of the phase change material is contacted with at least one surface of the recording layer. By exploiting the absorption rate control and the crystallization promotion in combination, it is possible to positively compensate the difference between the physical properties of the crystal phase and those of the amorphous phase to realize optimum direct overwrite.

Figure 1