ABSTRACT

A method for sealing a fine groove with a siliceous material, characterized as comprising applying a solution of a perhydropolysilazane having a weight average molecular weight in the range of 3,000 to 20,000 in terms of polystyrene to a substrate having at least one groove having a width of 0.2 μm or less at its deepest portion and having a ratio of the corresponding depth to the width of 2 or more, to thereby fill and seal the groove with the perhydropolysilazane, and then heating the perhydropolysilazane in an atmosphere containing water vapor to thereby convert the perhydropolysilazane to a siliceous material.

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