Claims

[Claim 1]

A polycrystalline silicon material for producing silicon single crystal, comprising: a plurality of polycrystalline silicon chunks, wherein

assuming that a total concentration of phosphorus (P) and arsenic (As) as donor elements present inside a bulk body of the polycrystalline silicon material is Cd1 [ppta], a total concentration of boron (B) and aluminum (Al) as acceptor elements present inside the bulk body of the polycrystalline silicon material is Ca1 [ppta], a total concentration of phosphorus (P) and arsenic (As) as the donor elements present on a surface of the polycrystalline silicon material is Cd2 [ppta], and a total concentration of boron (B) and aluminum (Al) as the acceptor elements present on the surface of the polycrystalline silicon material is Ca2 [ppta],

the Cd1, Ca1, Cd2, and Ca2 satisfy a relation of $2\ [\text{ppta}] \leq (Cd1 + Cd2) - (Ca1 + Ca2) \leq 8\ [\text{ppta}]$.

[Claim 2]

The polycrystalline silicon material according to claim 1, wherein

assuming that a total weight of the polycrystalline silicon chunks contained in the polycrystalline silicon material is 100%, a weight of polycrystalline silicon chunks having a maximum length of 10 mm or more and 45 mm or less is 90% or more.

[Claim 3]

The polycrystalline silicon material according to claim 1, wherein

assuming that a total weight of the polycrystalline silicon chunks contained in the polycrystalline silicon material is 100%, a weight of polycrystalline silicon chunks having a maximum length of 20 mm or more and 70 mm or less is 90% or more.

[Claim 4]

The polycrystalline silicon material according to claim 1, wherein

assuming that a total weight of the polycrystalline silicon chunks contained in the polycrystalline silicon material is 100%, a weight of polycrystalline silicon chunks having a maximum length of 60 mm or more and 100 mm or less is 90% or more.