solve the foregoing problems and as a result, have found that a specific silicon nitride power is excellent as a mold release material for production of a silicon ingot, thereby leading to the present ~~invention~~disclosure. That is, the present ~~invention~~disclosure provides a silicon nitride powder for a mold release material of a mold for casting a polycrystalline silicon ingot characterized in that the percentage of primary particles of granular crystals monodispersed in powders is not less than 95% in terms of the area ratio calculated by analysis of an SEM image.

[0011a]

In an aspect, there is provided a silicon nitride powder for a mold release material for a mold of casting a polycrystalline silicon ingot, wherein a percentage of primary particles of granular crystals monodispersed in the silicon nitride powder are not less than 95% in terms of an area ratio calculated from analysis of a scanning electron microscope (SEM) image of the powder.

[0012]

The present ~~invention~~disclosure also provides a slurry containing a silicon nitride powder for a mold release layer of a mold for casting a polycrystalline silicon ingot, in which the silicon nitride powder for a mold release material of the mold for casting the polycrystalline silicon ingot is dispersed in water, a mold release material for casting, which contains a silicon nitride powder for a mold release material, and a mold for casting a polycrystalline silicon ingot in

which a mold release layer including the mold release material is formed on the inner surface thereof.

[0012a]

In another aspect, there is provided a slurry containing a silicon nitride powder for a mold release layer for a mold of casting a polycrystalline silicon ingot, wherein the silicon nitride powder for a mold release material for a mold of casting a polycrystalline silicon ingot as defined above is dispersed in water.

[0012b]

In yet another aspect, there is provided a mold release material for casting a polycrystalline silicon ingot, which contains the silicon nitride powder for a mold release material for a mold of casting a polycrystalline silicon ingot as defined above.

[0012c]

In yet another aspect, there is provided a mold for casting a polycrystalline silicon ingot, which comprises a mold release layer formed of the mold release material as defined above, formed in the inner surface of a mold.

Advantageous Effects of Invention

[0013]

As described above, the present invention can provide a mold for casting a polycrystalline silicon ingot, and a silicon nitride powder for a mold release material thereof,