

CLAIMS

[Claim 1]- A slurry comprising abrasive grains and a liquid medium, wherein

the abrasive grains contain ~~at least one metal compound selected from the group consisting of a metal oxide and a metal hydroxide,~~

the metal hydroxide~~compound~~ contains a metal capable of taking a plurality of valences, and

when the slurry is brought into contact with a surface to be polished to bring the abrasive grains into contact with the surface to be polished, the slurry yields 0.13 or more in X-ray photoelectron spectroscopy as a ratio of the lowest valence among the plurality of valences of the metal.

[Claim 2]- The slurry according to claim 1, wherein the lowest valence is trivalent.

[Claim 3]- The slurry according to claim 1 or 2, wherein the metal contains a rare-earth metal.

[Claim 4]- The slurry according to any one of claims 1 to 3, wherein the metal contains cerium.

[Claim 5]- The slurry according to any one of claims 1 to 4, wherein a zeta potential of the abrasive grains in the slurry is +10 mV or more.

[Claim 6]- The slurry according to any one of claims 1 to 5, wherein the surface to be polished contains at least one selected from the group consisting of silicon, aluminum, cobalt, copper, gallium, germanium, arsenic, ruthenium, indium, tin, hafnium, thallium, tungsten, and platinum.

[Claim 7]- A screening method for a slurry, the method comprising:

a step of bringing a slurry containing abrasive grains and a liquid medium into contact with a surface to be polished to bring the abrasive grains into contact with the surface to be polished; and

5 a measuring step of measuring a valence of a metal contained in the abrasive grains by X-ray photoelectron spectroscopy in a state where the abrasive grains are in contact with the surface to be polished, wherein

the abrasive grains contain at least one metal compound selected from the group consisting of a metal oxide and a metal hydroxide,

10 the metal compound contains a metal capable of taking a plurality of valences, and

in the measuring step, a ratio of the lowest valence among the plurality of valences of the metal is obtained.

[Claim 8]-
15 A polishing method comprising a step of polishing the surface to be polished by using a slurry yielding 0.13 or more as a ratio of the valence obtained in the measuring step of the screening method for a slurry according to claim 7.