[0005]

In Patent Document 2, in order to obtain a sintered body having a color suitable for a dental prosthesis, it has been studied to immerse a porous calcined body in a coloring solution containing iron ions and then sinter the resulting calcined body.

PRIOR ART DOCUMENTS

PATENT DOCUMENTS

[0006]

Patent Document 1: U.S. Patent No. 9,428,422

Patent Document 2: European Patent Application Publication No. 3892254

SUMMARY

[0006a]

In an aspect of the present disclosure, there is provided a powder of zirconia, comprising a stabilizing element and a transition metal element, wherein in a frequency distribution of element ratios of the transition metal element/zirconium plotted at intervals of 0.005, a difference between a minimum value and a maximum value of the transition metal element/zirconium is less than 0.25.

[0006b]

In another aspect of the present disclosure, there is provided a method for producing the powder as disclosed herein, comprising a step of drying a composition containing hydrated zirconia, a stabilizing element source, a transition metal element source and a solvent to provide a dry powder, and a step of subjecting the dry powder to heat treatment at a temperature lower than a sintering temperature to provide a calcined powder.

[0006c]

In a further aspect of the present disclosure, there is provided a green body, comprising the powder as disclosed herein.

[0006d]

In another aspect of the present disclosure, there is provided a method for

producing a calcined body, comprising a step of calcining the green body as disclosed herein.

[0006e]

In a further aspect of the present disclosure, there is provided a method for producing a sintered body, comprising a step of sintering at least one of a green body containing the powder as disclosed herein and a calcined body obtained by calcining the green body.

DISCLOSURE OF INVENTION

TECHNICAL PROBLEM

[0007]

In a method disclosed in Patent Document 2, gradual impregnation with a coloring component is performed from the surface to the inside. For this reason, the concentration of the coloring component is high on the surface of the calcined body and low in the inside, and the coloring component is contained in the calcined body with a concentration gradient from the surface to the inside. Thus, the resulting sintered body is likely to have a difference in color tone between the surface and the inside. In addition, when a calcined body that has already been processed is reprocessed, the color tone of the resulting sintered body may be visually recognized as being different from the color tone before reprocessing. In contrast, the method disclosed in Patent Document 1 makes it possible to obtain a calcined body and a sintered body in which the coloring component is contained almost uniformly from the surface to the inside of the calcined body. Therefore, the calcined body obtained from the powder of Patent Document 1 is suitable for calcined body processing. In addition, a change in color tone before and after reprocessing is small, compared with the calcined body obtained from Patent Document 2. Recent improvements in processing technology have led to finer processing. As a result, there is a demand for a calcined body having more