[0004]

Patent Document 1: International Publication No. WO 2008/013099

Patent Document 2: JP-A-2010-150064

Patent Document 3: JP-A-2016-060687

SUMMARY

[0004a]

In an aspect of the present disclosure, there is provided a zirconia powder comprising 2% by mole or more and 8% by mole or less of a stabilizing element and 50 ppm or less of titanium (Ti) and having an activation energy of 225 kJ/mol or more and 300 kJ/mol or less.

[0004b]

In another aspect of the present disclosure, there is provided a method for producing the zirconia powder according to any one of claims 1 to 7, comprising the steps of: adjusting a pH of a raw material solution containing a zirconium source and a stabilizing element source to 3.5 or more and 5.5 or less; heating the raw material solution to produce a zirconia sol solution; mixing the zirconia solution and an alkaline solution to produce a coprecipitate; and heat-treating the coprecipitate.

DISCLOSURE OF INVENTION

TECHNICAL PROBLEM

[0005]

In Patent Document 1, since the HIP treatment for imparting translucency is required, the production costs tend to be high as a method for producing a sintered body with high translucency, although inexpensive powder can be used. Furthermore, the powder in Patent Document 2 can provide a sintered body with high translucency by pressureless sintering, but precise control of production conditions is required to industrially stably produce such a powder. The nano-zirconia in Patent Document 3 is not suitable from the perspective of industrial production due to high production costs using a special production facility called supercritical drying.

[0006]

An object of the present disclosure is to provide at least one of a zirconia powder capable of producing a sintered body with high translucency even by pressureless sintering and suitable for industrial production, a method for producing the zirconia powder, a method for producing a calcined body using the zirconia powder, and a method for producing a sintered body using the zirconia powder.

SOLUTION TO PROBLEM

[0007]

In the present disclosure, an industrial zirconia powder suitable as a raw material powder for a translucent zirconia sintered body and a method for producing the zirconia powder have been studied. As a result, focusing on the state of a powder, in particular, the composition and the energy state, the present inventors have found a powder for producing a sintered body with higher translucency even by pressureless sintering. At