

Manufacturing method and device for aluminum nitride particles

High production yield and extremely low energy consumption!

Overview

Aluminum nitride (AlN) is known to be used as a filler in the sealing resin of electronic components and semiconductors to efficiently dissipate the heat due to its high insulation and thermal conductivity, and can significantly improve their life. However, the shape of the AlN particles produced by sintering at high temperature for a long time is extremely irregular, and it is not possible to include a large amount of AlN particles uniformly in the sealing resin.

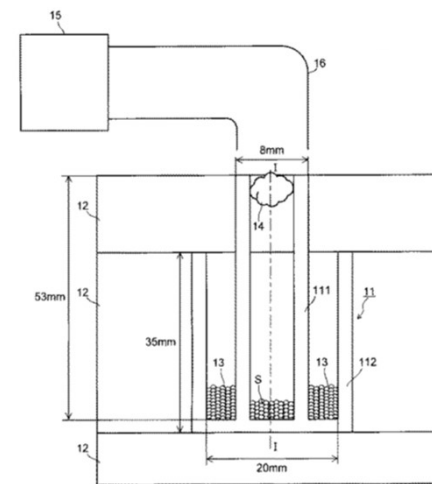
This invention is able to simply provide AlN particles with a new configuration that can be suitably used as a thermally conductive filler. In this invention, carbon & alumina particles are mixed and placed in a crucible, then irradiated by microwaves, contrary to conventional method where alumina particles are completely reduced by carbon particles.

Product Application

- ☐ Electronic device component ☐ Semiconductor device
- ☐ Semiconductor chips

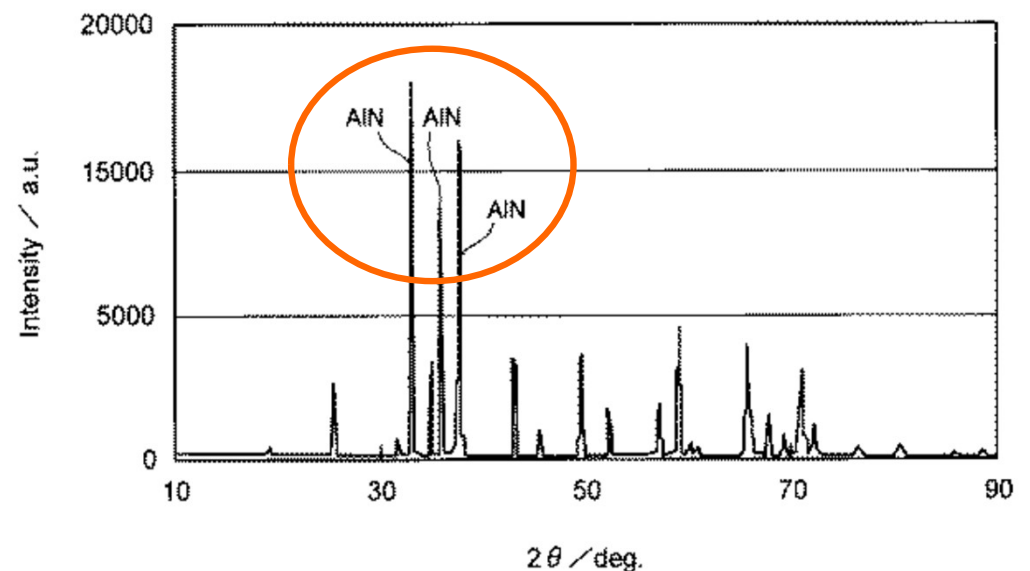
IP Data

IP No. : JP5565729
 Inventor : TAKIZAWA Hirotsugu, TAMBA Yuta, HAYASHI Yamato, YAMADA Katsuhiro, TORISU Takeshi, NOMOTO Hiderou, KOHNO Takumi
 Admin No. : T18-355



- 11. Crucible
- 111. Inner crucible
- 112. Outer crucible
- 13. Microwave absorber
- 14. Quartz wool
- 15. Microwave irradiation device
- 16. Conduit

It is guessed that a surface layer consisting of AlN is formed



Contact



Tohoku Techno Arch Co., Ltd.

Please visit [CONTACT](#) here