



製造氮化矽坩堝之方法

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簡歷：請參閱系所網頁

<http://www.che.ntu.edu.tw/che/?p=501>

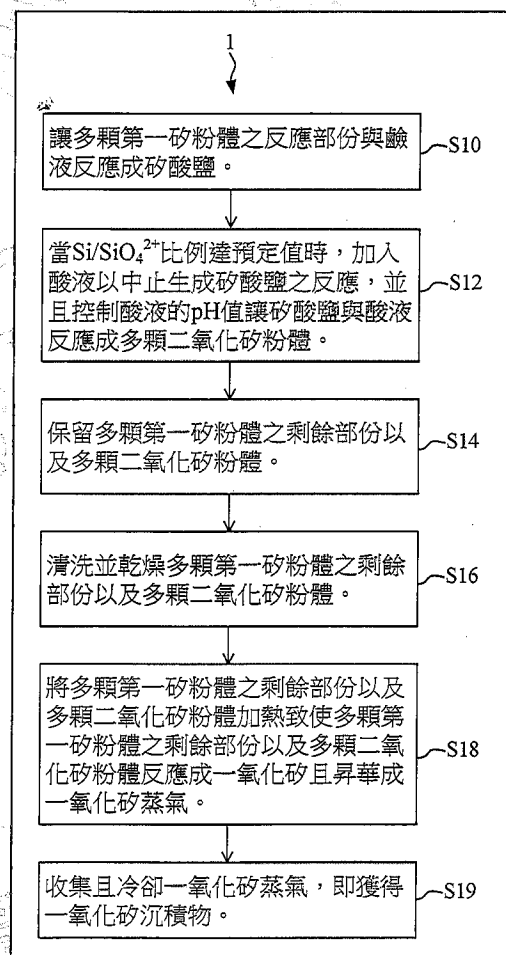
市場及需求：半導體及相關產業

技術摘要(含成果)：一種製造氮化矽坩堝之方法。本發明之方法首先係使用包含多顆矽顆粒且較稀的第一漿料於石膏模具的內壁上形成薄層濾餅。接著，本發明之方法係使用包含多顆矽顆粒且較濃的第二漿料對石膏模具進行注漿成型製程，以形成生坯。接著，本發明之方法係對生坯進行乾燥處理、煅燒處理、脫氧處理，且在特定升溫速率控制下進行氮化處理，即完成氮化矽坩堝。

優勢：廢棄的矽泥回收再利用

競爭產品：市面上石英坩堝

專利現況：撰寫中



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METHOD OF MANUFACTURING SILICON NITRIDE CRUCIBLE

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Experience:

Refer to

<http://www.che.ntu.edu.tw/che/?p=501>

Market Needs:

Semiconductor Industry

Our Technology:

The invention discloses a method of manufacturing a silicon nitride crucible. Firstly, the method according to the invention is to form a thin layer of cake on an inner wall of a plaster mold by use of a leaner first slurry containing a plurality of silicon particles. Next, the method according to the invention is to perform a slip casting process on the plaster mold to form a green body by use of a richer second slurry containing a plurality of silicon particles. Next, the method according to the invention is to perform a drying treatment, a calcination treatment and a deoxidation treatment for the green body, and to perform a nitridation treatment for the green body under control of a specific heating rate, and then, the silicon nitride crucible is completed.

Strength:

Recycle the waste silicon

Competing Products:

Existed quartz crucibles

Intellectual Properties:

Patent

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