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Chen

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(54) **GRANULATION OF FINE POWDER**

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(58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**

A mixture of fine powder including thorium oxide was converted to granulated powder by forming a first-green-body and heat treating the first-green-body at a high temperature to strengthen the first-green-body followed by granulation by crushing or milling the heat-treated first-green-body. The granulated powder was achieved by screening through a combination of sieves to achieve the desired granule size distribution. The granulated powder relies on the thermal bonding to maintain its shape and structure. The granulated powder contains no organic binder and can be stored in a radioactive or other extreme environment. The granulated powder was pressed and sintered to form a dense compact with a higher density and more uniform pore size distribution.

18 Claims, 2 Drawing Sheets