



新型長餘輝材料製備方法

(以下內容一頁為限，不可揭露關鍵技術內容；填表完成後請刪除此行)

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市場及需求：

本技術係關於一種長餘輝材料製備技術，可製備具有常效型產生餘輝發光之材料。發光物質的發明改變人類傳統日出而做、日入而息的習性，使夜晚不再漆黑無光，而螢光體的發明更將夜晚裝飾得更加璀璨繽紛。既有螢光體材料均需外界施加發光源，予以適當激發才能發光，但長餘輝型材料於適當照光後，可在無外界激發光源下持續發光。因長餘輝材料可於一般環境下蓄光後再行發光，故可提供環保且節能之發光材料。

技術摘要：

本技術係一種長餘輝材料之製備方法，利用反應條件控制，控制長餘輝材料粒徑，配合建築業或有需長餘輝材料場所使用。

優勢：

傳統長餘輝材料製備製程繁複，不亦獲得高純度材料，且反應中所需高溫反應，且高溫反應時間長，耗費大量能源。本技術利用反應設計，選擇最適反應條件，控制反應氣氛，以製備高亮度之長餘輝材料。

競爭產品：

與本技術競爭產品為傳統長餘輝材料製備技術，傳統技術製備之粒徑不易控制。本技術可改善上述缺失，提高產品競爭力。

專利現況：

- (1) 本技術將申請中華民國專利。
- (2) 本技術團隊教授具有研究陶瓷材料二十年以上經驗。
- (3) 本研究團隊具有十年以上研究螢光材料經驗。
- (4) 本技術團隊教授為本校特聘教授，並獲得多次國科會傑出研究獎。

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New synthesis method for afterglow materials

(Below is limited to 1-page only; be careful not to disclose vital technology content. Please delete these words when the document is finished)

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Market Needs:

This technology is related to the processing method of long-afterglow materials. This process can produce long life-time afterglow materials. The lighting materials change the life style of human beings, and produce a lightening way in dark. The previous phosphors require a lighting source to produce light. On the other hand, the long-afterglow materials can produce light when these materials have proper excitation. Because the special lighting properties, the long-afterglow materials can be used for energy-saving environment.

Our Technology:

The present technology is related to a process to prepare long-afterglow phosphors. This process can control the grain sizes with the controlled processes. The produced materials can be used for buildings and the places which require long-afterglow light.

Strength:

The conventional processes are complicated, and can not produce high-purity materials. The processes require high-temperature reactions, and reaction time is long for consuming a large amount of energy. This technology use the design of reactions combined the controlled reaction conditions to prepare the long-afterglow materials having high luminescence.

Competing Products:

The previous conditional process is hard to control the grain sizes of long-afterglow phosphors. The developed technology can improve the above disadvantage.

Intellectual Properties:

- (1) This technology will be filed as a patent in our country.
- (2) The professor in the research team has studied ceramic materials for more than twenty years.
- (3) The research team has studied phosphors materials for more than ten years.
- (4) The professor in the research team is a distinguished professor at NTU, and has obtained many rewards from NSC.

Contact (do not need to fill out):

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