長餘輝材料製備技術

（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 technology 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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Experience:

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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.

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