

# 功能性與裝飾性的濺射鍍紡織產品

## Functional and Decorative Textile Products through Sputtering Technology

### 應用濺射鍍紡織布料設計

Functional and decorative metallic textiles for high-end fashion and accessory designs

專利申請編號及國家：200910209008.8 (中國)

#### 特色與優點

金屬鍍覆技術不僅提升了紡織品的外觀，還表現出抗靜電、抑菌、以及防輻射等特性。這種織物手感柔軟，設計效果新穎，具廣泛的應用潛能。作為一種無水加工技術，這種創新生產設計符合環保生產技術的要求

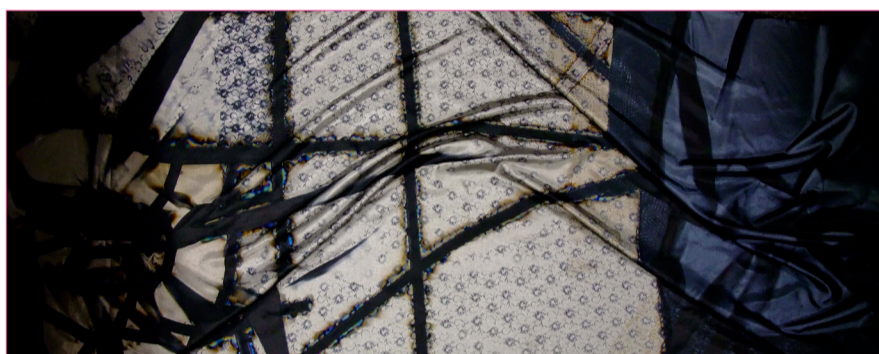
#### 應用

這項目開發的技術應用範圍廣泛，可開拓高檔紡織服飾市場，例如時裝、家居紡織品及功能性紡織品

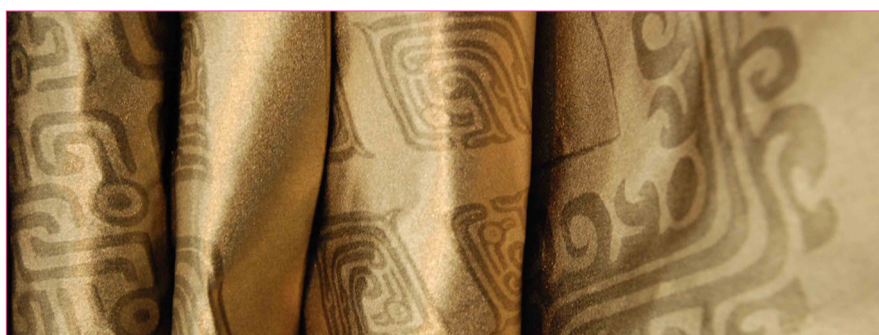
#### 獎項

- 中國真維斯杯休閒裝設計大賽總決賽 - 銀獎 (2015年10月)
- 中國國際面料設計大賽暨中國流行面料產品 - 銅獎 (2015年2月)
- 第40屆瑞士日內瓦國際發明展 - 銀獎 (2012年4月)
- 羅馬尼亞創新科技協會特別大獎 (2012年4月)

這個研發項目透過濺射技術，以無水製作的方式，把銀、鈦和不銹鋼平均鍍覆在真絲及滌綸紡織品設計上，從而製作出裝飾與功能兼備、具金屬效果的面料。這技術可帶動創新的時裝設計，具廣泛的應用潛力。此項目有三部份研究工作：創新鍍覆方法製作裝飾與功能兼備、具有金屬效果的面料；分析金屬鍍覆的真絲及滌綸紡織品特性；開發金屬紡織產品。



紡織設計，2010，不銹鋼鍍覆的滌綸面料  
Textile Design, 2010, stainless steel coated polyester fabric



紡織設計，2009，不銹鋼，鈦，銀合金鍍覆的真絲面料  
Textile Design, 2009, Stainless steel and alloy coated silk fabric



紡織設計，2010，不銹鋼，鈦，銀合金鍍覆的滌綸面料  
Textile Design, 2010, Stainless steel and alloy-coated polyester fabric

Patent Application No.: 200910209008.8 (China)

#### Special Features and Advantages

The project creates a new approach to produce metallized textiles with anti-static, bacteria growth control, and radiation shielding properties. Particularly, the materials have soft hand feel and novel decorative effects, and thus have potential of broad applications. Besides, the technology is a non-aqueous process and therefore environmental friendly

#### Application

Broad applications are anticipated for the technology developed in the project. Due to the super functional properties, as mentioned above, and the novel decorative effects, metallized textiles can be used for luxury fashion designs, such as evening gowns, various home textile products, and functional garment

#### Awards

- Silver Prize - JeansWest Competition, China (Oct 2015)
- Bronze Prize - Fabrics China and China International Fabrics Design, China (Feb 2015)
- Silver Medal - 40th International Exhibition of Inventions of Geneva, Switzerland (Apr 2012)
- Special Award from Romanian Association for Nonconventional Technologies, Bucharest, Romania (Apr 2012)

With a non-aqueous process and sputtering technology, silver, titanium and stainless steel particles are evenly coated on silk and polyester fabrics. New textile products with novel decorative and functional properties and metallic appearance are created, which will inspire new fashion designs and have potentials of broad applications. The project has three components: 1) New approach to metallizing fabric for functional and decorative textiles; 2) Analysis of properties of metallized silk and polyester textiles; and 3) Prototypes of novel metallic textile design.

#### Principal Investigator

Dr Kinor JIANG

Institute of Textiles and Clothing

#### Contact Details

The Hong Kong Research Institute of Textiles and Apparel

Tel: (852) 262 0180 Fax: (852) 2364 2727 Email: info@hkrita.com

A research project of HKRITA



THE HONG KONG 香港紡織及成衣研發中心  
RESEARCH INSTITUTE OF TEXTILES AND APPAREL



Access More info via mobile