

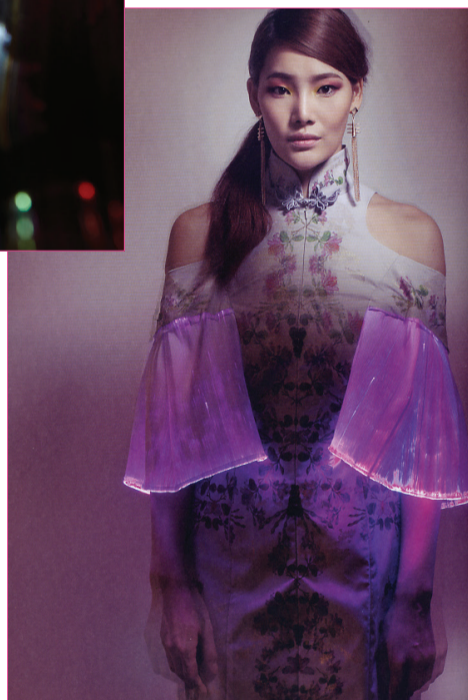
智能發光光纖 (POF) 紡織品 Smart Illuminative Polymeric Optical Fibre (POF) Textiles

應用於時尚服飾、室內紡織品和安全工作服的互動智能發光紡織品
Interactive illuminating textiles for fashion, interiors and safety wear

智能發光光纖紡織品能加入感應器和遙控裝置，令使用者能隨意改變布料的外觀。智能發光光纖布料和傳統布料質感一樣柔軟，而且應用和處理方法相似，若配合人工智能科技，可應用在不同類型的日常用品上。現有的發光布料大多只能產生平面發光效果，部分更加入過度的科技應用，效果差強人意；而新的智能發光光纖紡織品則重視圖案、質感和柔軟結構等美學觀感，這是一般發光布料所忽略的。有了這項發明，紡織品不再是被動的物品，而是一種互動的傳意工具。



智能發光光纖布
Interactive POF Textiles



可用電話控制發光顏色的時尚服飾
Interactive POF fashion design with integrated mobile phone remote control

Smart illuminative POF textiles integrated with sensors and remote controls enable users to constantly change the appearance of the textiles according to the ever-changing needs. These textiles are pliable and offer the familiar tactile quality of conventional textiles, while offering a means to seamlessly integrate technology into everyday products. In contrast to existing illuminating textiles which only offer flat illumination or obtrusive application of technology, the textiles of this project possesses aesthetic function in terms of patterns, textures and soft structures which had been previously neglected in illuminating textiles. The integrated sensors and remote control transform conventionally passive textiles into an interactive communication platform.

Principal Investigator

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特色與優點

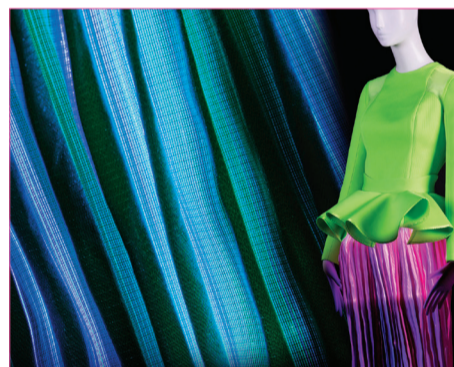
- 紋理獨特，質感柔軟、立體，能提升用家的感官享受
- 質量佳，具彈性，能提高舒適感和時尚感
- 利用智能手機的藍牙藍技術作遙遠控制，使用簡便，適合各類用家
- 布料的顏色、發光韻律和圖案均可隨用家的喜好和需要而改變

應用

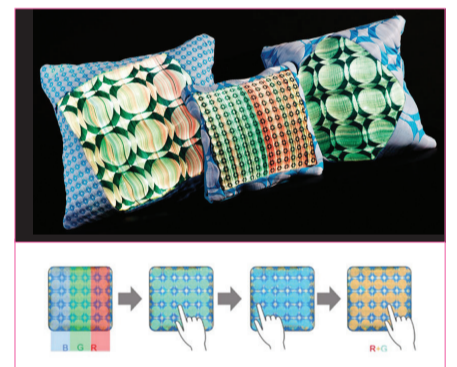
- 具耀眼視覺效果的時尚服飾或娛樂表演服裝
- 家居紡織品，能隨時改變家居外觀
- 安全工作服，例如拯救人員的制服，可作識別和溝通的工具

獎項

- TEXTILE ART OF TODAY 2015 - 優異獎 (2015年12月)
- “張睿杯” 2015中國國際家用紡織產品設計大賽 - 優異獎(2015年7月)
- 中國第八屆國際纖維藝術雙年展暨學術研討會 - 優異獎(2014年9月)
- Research Journal of Textile and Apparel - 優異論文獎 (2013年4月)
- 第一屆中國當代纖維藝術展 - 優異獎 (2011年9月)



結合觸感測器的互動智能發光紡織品
Interactive POF textile fashion design with integrated touch sensor



結合觸感測器互動智能發光的坐墊
Interactive POF textile cushion with touch sensor for blended color illumination

Special Features and Advantages

- Unique textures and soft dimensional effects enhance users' sensory pleasure
- Pliability and high tactile quality ensures wearing comfort and fashionability
- The integration of remote controls via bluetooth technology of mobile phones makes them user friendly for a wide spectrum of users
- These textiles' color, illumination rhythm and patterns can evolve according to the needs of the users

Applications

- Fashion and stage costumes with great visual effects
- Interior furnishings with ability to customize the interior environments
- Safety wear, e.g. uniforms for rescuers, for identification and communication

Awards

- Excellent Award - TEXTILE ART OF TODAY 2015, Slovakia (Dec 2015)
- Excellent Award - "Zhang Qian Bei" Home Textile Contest, China (Jul 2015)
- Outstanding Award - The 8th Lausanne to Beijing Fiber Art Biennale, China (Sept 2014)
- Excellent Paper Award - Research Journal of Textile and Apparel (April 2013)
- Excellence Award - The 1st Contemporary Chinese Fiber Art Exhibition, China (Sept 2011)



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