CHITOSAN MEDICAL & HEALTHCARE TEXTILE

Dr LI Li, Associate Professor, Institute of Textiles and Clothing

Chitosan fibers consist of numerous advantageous characteristics such as being biodegradable, is considered as nontoxic in nature, and as a natural and effective anti-microbial agent with wound healing and cell regenerating abilities. Unlike the conventional practice of coating chitosan onto the textile material surfaces, the research team invented an innovative anti-static spinning system for providing a solution for spinning chitosan and its blends. Chitosan yarns with sufficient physical properties such as length, strength and evenness can be produced. This innovation can help to realize the possibility of producing highly flexible chitosan textiles while preserving the biological features for medical and healthcare applications. The chitosan textiles can be applied in various aspects which include daily and protective clothing, interiors and furniture, filtration and purification, sanitary products and cosmetics. The new system is believed to be a promising solution for securing the market of chitosan-based textile products in the future.

