



Advances of Medical Textiles

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Message from the Guest Editors

Medical textiles are an emerging interdisciplinary field, positioned among conventional textile technologies— weaving, knitting, embroidery—and other scientific fields such as chemistry, medical science, pharmaceuticals and electrical engineering. Medical textiles are an advanced branch of technical textiles, offering much more than commodities.

Textile manufacturing processes are adapted- and/or integrated with other processing technologies with the capacity to form composite structures with different levels of complexity in terms of composition and architecture, such as coating, lithography, and 3D/ink-jet printing. Such an integrative approach can elicit the “smart” function into the fabrics to sense and respond to electrical, mechanical, chemical, thermal, optical, or magnetic stimuli, to deliver drugs in a predictable and controlled manner, to provide high mechanical resistance (sutures, heart valve prosthesis, hernia and incontinence meshes), selectivity (blood filtration), and much more.

