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► **To cite this version:**

Laurent Dufossé. New Research Trends for Textiles. Textiles, 2022, 2, pp.579 - 581. 10.3390/textiles2040033 . hal-04148829

**HAL Id: hal-04148829**

**<https://hal.science/hal-04148829v1>**

Submitted on 3 Jul 2023

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# New Research Trends for Textiles

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The *Textiles* journal is a peer-reviewed, open-access journal, officially launched in 2020. It concerns research and innovation in the field of textile materials. This field is very broad and covers many topics. Textile materials composed of fibers linked by weaving, braiding, knitting, or sewing constitute a wide range of materials and are essential for many applications. They are both ancestral materials used since antiquity and in advanced applications, such as composites in aeronautics or the medical industry [1].

*Textiles*, an open-access international journal by MDPI (Basel, Switzerland), focuses on the broad field of textile materials and topics including, but not limited to, the following: fibers and yarns for textiles, properties, and microstructures; advances in weaving, braiding, and knitting technologies; 3D textiles; nonwovens; structure and properties of high-performance textiles; characterization and testing of textiles; fatigue, damage, and failure of textile; friction in textile materials; simulation in textiles; textile and clothing science; sustainable fibers and textiles; dyeing textiles; microbial [2,3] and plant pigments for the textile industry; microbial enzymes in the textile industry; bio-polishing; bioconversion of waste fabric; microbial wastewater treatment; microbial silk; bacterial cellulose; recycling in textiles; fashion and apparel design; textile composite; preform and prepreg draping; medical textile materials; textile materials for civil engineering applications; geotextiles; smart textiles; protective and thermal protective textiles; textile history and archeology [1].

To date, *Textiles* has published articles that can be found here: [https://www.mdpi.com/search?q=&journal=textiles&sort=pubdate&page\\_count=50](https://www.mdpi.com/search?q=&journal=textiles&sort=pubdate&page_count=50).

In order to demonstrate the huge impact of textile research and technology in the world, the Publisher, the Editorial Board, and myself decided to invite contributions, feature papers, from key world-class researchers which were collected in a single Special Issue entitled 'New world research trends for textiles', from May 2021 to May 2022.

In total, 36 papers were submitted. These 24 papers can be roughly subdivided into four parts: functional textiles; process and modelling; control; consumers and behavior.

## 1. Functional Textiles

Photochromic Textiles Based upon Aqueous Blends of Oxygen-Deficient WO<sub>3-x</sub> and TiO<sub>2</sub> Nanocrystals. by Roberto Giannuzzi, Vitantonio Primiceri, Riccardo Scarfiello, Marco Pugliese, Fabrizio Mariano, Antonio Maggiore, Carmela Tania Prontera, Sonia Carallo, Cristian De Vito, Luigi Carbone and Vincenzo Maiorano. *Textiles* 2022, 2(3), 382–394; <https://doi.org/10.3390/textiles2030021>.

50/60 Hz Power Grid Noise as a Skin Contact Measure of Textile ECG Electrodes. by Khorolsuren Tuvshinbayar, Guido Ehrmann and Andrea Ehrmann. *Textiles* 2022, 2(2), 265–274; <https://doi.org/10.3390/textiles2020014>.

Characterizing Steam Penetration through Thermal Protective Fabric Materials. by Sumit Mandal and Guowen Song. *Textiles* 2022, 2(1), 16–28; <https://doi.org/10.3390/textiles2010002>.

Stretchable Textile Yarn Based on UHF RFID Helical Tag. by Sofia Benouakta, Florin Doru Hutu and Yvan Duroc. *Textiles* 2021, 1(3), 547–557; <https://doi.org/10.3390/textiles1030029>.



**Citation:** Dufossé, L. New Research Trends for Textiles. *Textiles* 2022, 2, 579–581. <https://doi.org/10.3390/textiles2040033>

Received: 29 October 2022

Accepted: 10 November 2022

Published: 16 November 2022

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Fibers and Textiles for Personal Protective Equipment: Review of Recent Progress and Perspectives on Future Developments. by Patricia I. Dolez, Sabrina Marsha and Rachel H. McQueen. *Textiles* 2022, 2(2), 349–381; <https://doi.org/10.3390/textiles2020020>.

Textile-Based Sound Sensors (TSS): New Opportunities for Sound Monitoring in Smart Buildings. by Andrea Giglio, Karsten Neuwerk, Michael Haupt, Giovanni Maria Conti and Ingrid Paoletti. *Textiles* 2022, 2(2), 296–306; <https://doi.org/10.3390/textiles2020016>.

High-Performance and Functional Fiber Materials—A Review of Properties, Scanning Electron Microscopy SEM and Electron Dispersive Spectroscopy EDS. by Boris Mahltig and Thomas Grethe. *Textiles* 2022, 2(2), 209–251; <https://doi.org/10.3390/textiles2020012>.

Geotextiles—A Versatile Tool for Environmental Sensitive Applications in Geotechnical Engineering. by Fulga Tanasă, Mărioara Nechifor, Mărușă-Elena Ignat and Carmen-Alice Teacă. *Textiles* 2022, 2(2), 189–208; <https://doi.org/10.3390/textiles2020011>.

Review of Fiber- or Yarn-Based Wearable Resistive Strain Sensors: Structural Design, Fabrication Technologies and Applications. by Fei Huang, Jiyong Hu and Xiong Yan. *Textiles* 2022, 2(1), 81–111; <https://doi.org/10.3390/textiles2010005>.

Wearable Actuators: An Overview. by Yu Chen, Yiduo Yang, Mengjiao Li, Erdong Chen, Weilei Mu, Rosie Fisher and Rong Yin. *Textiles* 2021, 1(2), 283–321; <https://doi.org/10.3390/textiles1020015>.

Bacterial Secondary Metabolites as Biopigments for Textile Dyeing. by Ana Kramar and Mirjana M. Kostic. *Textiles* 2022, 2(2), 252–264; <https://doi.org/10.3390/textiles2020013>.

## 2. Process and Modelling

Loop Order Analysis of Weft-Knitted Textiles. by Levi Kapllani, Chelsea Amanatides, Genevieve Dion and David E. Breen. *Textiles* 2022, 2(2), 275–295; <https://doi.org/10.3390/textiles2020015>.

New Geometrical Modelling for 2D Fabric and 2.5D Interlock Composites. by Mohammad Abbas Kaddaha, Rafic Younes and Pascal Lafon. *Textiles* 2022, 2(1), 142–161; <https://doi.org/10.3390/textiles2010008>.

Meso-Macro Simulations of the Forming of 3D Non-Crimp Woven Fabrics. by Jie Wang, Peng Wang, Nahiene Hamila and Philippe Boisse. *Textiles* 2022, 2(1), 112–123; <https://doi.org/10.3390/textiles2010006>.

Continuous Yarn Electrospinning. by Shakir Zainuddin and Thomas Scheibel. *Textiles* 2022, 2(1), 124–141; <https://doi.org/10.3390/textiles2010007>.

A Review on Tough Soft Composites at Different Length Scales. by Wei Cui and Ruijie Zhu. *Textiles* 2021, 1(3), 513–533; <https://doi.org/10.3390/textiles1030027>.

Textile Branch and Main Breakthroughs of the Czech Republic in the Field of Textile Machinery: An Illustrated Review. by Jiří Militký, Dana Křemenáková, Miroslav Václavík, Václav Klička and Stanislav Dídek. *Textiles* 2021, 1(3), 466–482; <https://doi.org/10.3390/textiles1030024>.

Recent Efforts in Modeling and Simulation of Textiles. by Julia Orlik, Maxime Krier, David Neusius, Kathrin Pietsch, Olena Sivak and Konrad Steiner. *Textiles* 2021, 1(2), 322–336; <https://doi.org/10.3390/textiles1020016>.

## 3. Control

A Comparison of Two Different Light Booths for Measuring Color Difference of Metameric Pairs. by Azmary Akter Mukthy, Michal Vik and Martina Viková. *Textiles* 2021, 1(3), 558–570; <https://doi.org/10.3390/textiles1030030>.

Effect of Textile Characteristics on the AR-Glass Fabric Efficiency. by Marco Carlo Rampini, Giulio Zani, Louis Schouler, Matteo Colombo and Marco di Prisco. *Textiles* 2021, 1(2), 387–404; <https://doi.org/10.3390/textiles1020020>.

Dielectric Properties of Textile Materials: Analytical Approximations and Experimental Measurements—A Review. by Yusuke Yamada. *Textiles* 2022, 2(1), 50–80; <https://doi.org/10.3390/textiles2010004>.

#### 4. Consumers and Behavior

Development of a Consumer-Based Quality Scale for Artisan Textiles: A Study with Scarves/Shawls. by Denis Richard Seninde, Edgar Chambers IV, Delores H. Chambers and Edgar Chambers V. *Textiles* 2021, 1(3), 483–503; <https://doi.org/10.3390/textiles1030025>.

Organic Cotton Clothing Purchase Behavior: A Comparative Study of Consumers in the United States and Bangladesh. by Md Nakib Ul Hasan, Chuanlan Liu and Bulbul Ahmed. *Textiles* 2021, 1(2), 376–386; <https://doi.org/10.3390/textiles1020019>.

A Review on Textile Recycling Practices and Challenges. by Jeanger P. Juanga-Labayen, Ildefonso V. Labayen and Qiuyan Yuan. *Textiles* 2022, 2(1), 174–188; <https://doi.org/10.3390/textiles2010010>.

I, as Guest Editor, trust all readers of this Special Issue enjoy the contents and I would like to deeply thank all the wonderful authors who contributed; Prof. Philippe Boisse, Editor-in-Chief of *Textiles*; the numerous reviewers; and the whole team at MDPI (editing, production, website, etc.).

**Conflicts of Interest:** The author declares no conflict of interest.

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