

**Proceedings of the Sixth International Conference on**

**CHALLENGES IN HIGHER EDUCATION AND  
RESEARCH IN THE 21<sup>ST</sup> CENTURY**

**EXTRASS**

**June 4-7, 2008, Sozopol, Bulgaria**

Published by  
Heron Press Ltd., 18, Oborishte str., BG-1504 Sofia, Bulgaria; e-mail:heron\_press@mail.bg

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**Proceedings of the Sixth International Conference held in Sozopol, Bulgaria,  
June 4-7, 2008, organized by**

**the Technical University of Sofia, English Language of Engineering**

**and**

**the Transilvania University of Braşov**

**Vol.6 (Part I)**

**Edited by N. Kolev, L. Dimitrov, E. Helerea and M. Olaru**

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**ISBN 978-954-580-247-8**

Typeset by Heron Press Ltd.  
Printed in Bulgaria by Heron Press Ltd.

## QUALITY OF TEXTILE MATERIALS IN RELATION WITH CONSUMER AND ENVIRONMENT PROTECTION

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**Abstract:** Textile merchandise leads to many issues on consumer and environment protection, although at a first look it may seem that they have no effects.

Efforts by researchers in the textile field in cooperation with specialists from other fields have led to the manufacturing of new ecological fibres and threads that lack the chemical substances present during cropping and processing: ecological cotton, natural coloured cotton, Eriotex, bio-wool, ecological hemp, pineapple fibres, algae fibres.

In order to protect the environment and the consumers, researchers produced new textile materials of superior properties that comply with the conditions of a modern economy: functional agro-textiles for environment protection, materials of chemical fibres of polylacticidic polymers (PLA), bio-textiles, Super-absorbent fibres, functional and intelligent textiles.

The concerns regarding environment protection and to a healthy life of the population are orientated in the last years, more and more to the textiles field which lead to the appearance of ecological fibres.

Common efforts of the scientists from textiles field together with scientists from others fields lead to the appearance of ecological fibres and yarns that did not contain chemical substances which can affect people health.

**Keywords:** consumer and environment protection, ecological fibres, ecological technology, agro-textiles, super-absorbent fibres

### 1. Introduction

In the conditions of the modern economy the consumer and environment protection occurred as a consequence of the diversity of the textile merchandise offer on the internal and international market, of the complexity of the information system and of the trade advertisement as well as of the increase in efforts by different trade agents to draw large numbers of consumers. Textile merchandise on the Romanian market may originate in different countries, may even be counterfeit in which case they jeopardize the consumer health. Textile merchandise leads to many issues on consumer and environment protection, although at a first look it may seem that they have no effects. Consumer and environment protection in the field of textile merchandise is a complex issue and must be approached in several aspects, of which we mention:

- Manufacturing of ecological fibres and threads and the ecological marking of textile materials;
- Manufacturing of textile materials of improved characteristics, new characteristics, some of which are special such as: biodegradable, optical, scented, thermoresistant materials, etc.;
- Identification of the chemical substances used in the manufacturing operations and knowledge of quality requirements in order to ensure consumer and environment protection;
- Quality of second hand items in relation to consumer protection;

- Protection of the consumer of textile merchandise through observance of the requirements for the marking of fibre composition and its labeling.

### 2. Manufacturing of Ecological Fibres and Threads

Efforts by researchers in the textile field in cooperation with specialists from other fields have led to the manufacturing of new ecological fibres and threads that lack the chemical substances present during cropping and processing.



**Ecological cotton** is obtained by cropping without or with a minimal quantity of chemical products. At a global level for the cropping of the traditional cotton the following are used: 65% pesticides, 20% herbicides, 14% defoliant and growth regulators, 1% fungicide and other toxic products. However, ecological cotton is obtained in small quantities, but attention paid to negative impacts on the environment