Institute of Biopolymers and Chemical Fibres
Instytut Biopolimerów i Włókien Chemicznych IBWCh

Director of the Institute: *Danuta Ciechańska Ph.D., Eng.*

The research subject *of IBWCH is conducting scientific and development research, as well as implementing their results into praxis in the following fields:*

- *processing, modifying, and application of biopolymers,*
- *techniques and technologies of manufacturing, processing, and application of chemical fibres and other polymer materials and related products,*
- *techniques and technologies connected with manufacturing, processing and application of products of the pulp and paper industry and related branches*

R&D activity *includes the following positions, among others:*

- *biopolymers – modifying and processing,*
- *functional, thermoplastic polymers,*
- *biodegradable polymers and products from recovered wastes,*
- *industrial biotechnology, e.g. bioprocesses for modifying and processing polymers and fibres, and biosyntheses of nano-biomaterial polymers,*
- *biomaterials for medicine, agriculture, and technique,*
- *nano-technologies, e.g. nano-fibres, polymer nano-coatings, nano-additives for fibres.*
- *processing of polymer materials into fibres, films, micro-, and nano- fibrous forms, and nonwovens,*
- *paper techniques, new raw material sources for manufacturing paper pulps,*
- *environmental protection,*

The Institute is active *in inplementig its works in the textile industry, medicine, agriculture, plastic processing, filter and packing materials manufacturing, as well as in the cellulose and paper industries.*

The Institute is equipped *with unique technological apparatuses and equipment. An outstanding example is the technological line for fibre spinning by the wet method which enables cellulose, chitosan, alginate, starch, and composite fibres to be spun.*

The Institute is member *of domestic and international scientific organisations, the following, among others: EPNOE - European Network of Excellence, Polish Technological Platform of the Textile Industry, European Technological Platform of the Textile & Clothing Industries, 'Pro Humano Tex' Consortium, Centre of Advanced Textile Technologies Friendly for Human Beings, ENVITECH-Net - 'Technologies of Environmental Protection' Int. Scientific Network, 'Biodegradable Polymers from Renewable Resources' - Int. Scientific Network. Polish Scientific Network for 'Nano-technologies in Textile Science and Praxis.*

The Institute organises *educational courses and workshops in fields related to its activity.*

The Institute's offer of specific services *is wide and differentiated, and includes:*

- *physical, chemical and biochemical investigations of biopolymers and synthetic polymers,*
- *physical, including mechanical investigation of fibres, threads, textiles, and medical products,*
- *tests of antibacterial and antifungal activity of fibres and textiles,*
- *investigation in biodegradation,*
- *investigation of morphological structures by SEM and ESEM*
- *investigation and quality estimation of fibrous pulps, card boards, and paper products, including paper dedicated to contact with food, UE 94/62/EC tests, among others.*
- *Certification of paper products.*

The Institute is active *in international cooperation with a number of corporation, associations, universities, research & development institutes and centres, and companies.*

The Institute is publisher *of the scientific journal* ***'Fibres and Textiles in Eastern Europe'****; the journal is since 1999 on the 'Philadelphia List' of the Institute for Scientific Information.*

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