people working in the food industry but also as a useful handbook for students.

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Natural Fibers, Biopolymers, and Biocomposites, Amar K Mohanty, Manjusri Misra, Lawrence T. Drzal (Eds.). CRC Press, Taylor & Francis Group, Boca Raton, FL, USA (2005). xii+896 pp, £85.00, ISBN: 0-8493-1741-X

Nowadays, words such as biopolymers, biocomposites or natural fibres have lost all their mysterious character and have became well known and extremely valuable not only in the scientific world. Because of their biodegradability and renewable properties, biomaterials are excellent alternative feedstock sources in such areas as marine, electronic components, aerospace, automotives, various appliances, etc. Over the last 30 years a number of different biobased products have arisen with great impetus, among them, e.g. polylactic acid from corn, polyurethane products from soy oil, soy protein adhesives, lubricants from vegetable oils, polyhydroxyalkanoates or biocomposites from lignocellulosic fibres combined with petroleum-based polymers like polypropylene (PP) and polyethylene (PE).

The area of natural fibers, biopolymers and biocomposites has become very wide and this volume aims to illustrate a large number of substantial topics. Natural fibers, biopolymers and biocomposites very often come from plants. Plant fibre crops belong to the earliest known cultivated plants and they used to possess great agricultural application in textile production. Green composites made from plant fibres offer a valid alternative to the commonly used synthetic reinforcing fibres like glass or aramid (Chapter 2). To obtain an optimal fibre length (e.g. from bast fibre plants) for processing of composites, special fibre cleaning and the use of unique fibre-cutting machines is involved (Chapter 3). The retting significantly influences fibre quality and depends on weather conditions; hence it may change from year to year (Chapter 4). The low-cost materials that may have potential as wood fibre alternatives are considered for use in melt-blend biocomposites (Chapter 5). Moreover, the use of biofriendly fibre-reinforced plastic composites is desirable in automotive (Chapter 7) and building (Chapter 8) industries.

In the world of biomaterials one meets different types of resins such as unsaturated polyesters or vinyl esters. Glass fibres may consist of polyester resin reinforced composite materials, which are used to build various yachts or workboats (Chapter 9). A great raw material for biofibres production is wood. The different species of wood and their compositional differences dictate the properties and quality of the final product (Chapter 10). The first attempt to use bamboo-biodegradable polymer composites in injection molding reveals that tensile and flexural modules increase with increasing bamboo content (Chapter 11). Numerous applications of oil palm-fibre, natural fibre as rubber composites or straw-based biomass and biocomposites are thoroughly introduced appropriately in Chapters 12, 13 and 14. The new arising polymer platform – Sorona® has been recently introduced by the DuPont Company. This polymer can be shaped into fibres and others articles to offer a unique combination of softness, comfort-stretch and recovery, dyeability, and stain resistance (Chapter 15). Poly-lactic acid and lactide (PLA) can be also useful in fabrication of films and fibres (Chapter 16). PLA biocomposites containing inorganic fillers or reinforcements and PLA biocomposites reinforced with natural fibres are discussed in Chapter 17. The following parts of the volume disclose the relevant information concerned with bacterial polyester-based biocomposites, fibre-reinforced cellulose esters and cellulose-based nanocomposites, starch polymer blends and biocomposites. The new polymers from soybeans not only possess industrially viable thermophysical and mechanical properties, but also unique good damping and shape memory (Chapter 24). Other biobased polymers and their composites, namely polyurethanes, are produced by combination of petroleum-based isocyanate reactants with polyols derived from resources such as lignin or wood (Chapter 25).

"How sustainable are biopolymers and biobased products?" This question is given as a title in the last chapter, but the answers we can find in all particular subjects, which have fulfilled the book. First of all – biobased polymers are friendly for the natural environment; therefore they very often compliment other feedstocks and significantly support industrial ecology.

This volume is of great value both for specialists in biobased materials industries, because it includes up to date information on a wide variety of biobased materials and their property comparison; and for scientists, academics, students and civil servants. A lot of actual data is presented in tables, diagrams, schemes and pictures, which facilitates the readers' deep understanding of the presented subjects.

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