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Editorial

Fats and oils as renewable feedstock for the chemical industry

In view of declining fossil resources, ever increasing gas and oil prices, the green house effect and a multitude of less obvious reasons our modern way of life has become unsustainable in many aspects. The encouragement of an environmentally sound and sustainable use of natural resources, one aim of the Agenda 21, is one promising way to tackle these challenges in order to establish a sustainable raw material basis for our every day products and to reduce the pollution of our environment. Therefore, green chemistry, performed with renewable raw materials, has to be a major working area of chemists and technologists in the future.

In order to foster the scientific exchange and to provide non-experts a facile entry into this challenging field of research the international workshop “Fats and Oils as Renewable Feedstock for the Chemical Industry” was held for the first time in September 2007 in Emden, Germany. During this two day event 65 academic as well as industrial scientists from ten countries used this opportunity to establish new scientific networks and to discuss the state-of-the-art and future perspectives of the materials use of fats and oils as a renewable feedstock for the chemical industry. 16 lectures, together with a poster session, covered all topics from glycerol to fatty acid derivatives, from chemical to biotechnological conversion, from well-known reactions in oleochemistry to completely new approaches, and from fine chemical synthesis to materials applications. Soon, it became obvious that fats and oils offer extraordinarily widespread application possibilities and that this is the reason that presently they are the most widely applied renewable raw materials in the chemical industry. New trends and developments discussed at the workshop included application possibilities in nanotechnology, fine chemical synthesis, catalytic conversions (olefin cross-metathesis, hydroformylation, epoxidation, ...) as well as yet unexplored application possibilities as polymeric materials (powder coatings, block-copolymers, olefin-comonomers, ...), which are summarized in this special issue. Many of the discussed new developments have great potential to open up new avenues in oleochemical synthesis.

The second workshop “Fats and Oils as Renewable Feedstock for the Chemical Industry” will further extend and deepen the necessary scientific exchange and will be held again at the University of Applied Sciences Oldenburg/Ostfriesland/Wilhelmshaven in Emden, Germany from 22–24 March 2009. Also this second workshop will be covered by a special issue of the *European Journal of Lipid Science and Technology*.

We are looking forward to fruitful discussions and would like to invite you to participate and share your opinion and results on the materials use of fats and oils as renewable resources. The call for papers is now open and can be downloaded from <http://www.abiosus.org/>.

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