

# Macromolecular Symposia: Vol. 280

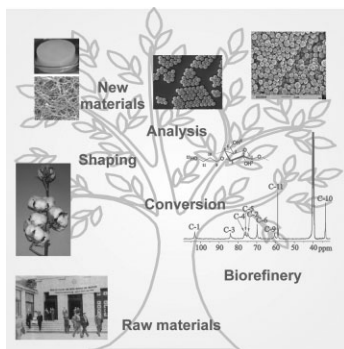
Articles published on the web will appear  
several weeks before the print edition.  
They are available through:



www.interscience.wiley.com

**Cover:** 50th Years Cellulose-Chemiker-Rundgespräch (“Cellulose Chemists Round Table Discussion”) organized in the frame of the “Verein der Zellstoff- und Papierchemiker und -ingenieure” (Zellcheming) marked a mile stone in the great history of research in the field of cellulose and related polysaccharides. In 2008, the 50th Cellulose Symposium took place in Wiesbaden, Germany, and was included in the 103rd Zellcheming Meeting in the period of June 24–26.

The cover picture was composed by the editors.



## Novel Aspects of the Renewable Resource Cellulose

Wiesbaden (Germany), June 24–26, 2008

### Preface

Th. Heinze, M. Janura, A. Koschella

50 Years Zellcheming Round Table  
Discussion for Cellulose Chemists  
(Cellulose-Chemiker-Rundgespräch)

Josef Schurz | 1

Progress in Cellulose Research in the  
Reflection of the Zellcheming Cellulose  
Symposium

Burkart Philipp,\* | 4  
Walter Schempp\*

Hot Topics in Polysaccharide Chemistry –  
Selected Examples

Thomas Heinze | 15

Synthesis and Bioactivity of Cellulose  
Derivatives

Kai Zhang, Dieter Peschel, | 28  
Erica Brendler,  
Thomas Groth,  
Steffen Fischer\*

|                                                                                                                    |                                                                                                                                |     |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----|
| The Applicability of Enzymes in Cellulose Ether Analysis                                                           | <i>Roland Adden,*<br/>Claes Melander,<br/>Gunnar Brinkmalm,<br/>Matthias Knarr,<br/>Jürgen Engelhardt,<br/>Petra Mischnick</i> | 36  |
| Cotton Linters: An Alternative Cellulosic Raw Material                                                             | <i>Axel Sczostak</i>                                                                                                           | 45  |
| Reactivity of Dissolving Pulp for Processing Viscose                                                               | <i>Klaus Fischer,*<br/>Ingeborg Schmidt,<br/>Steffen Fischer</i>                                                               | 54  |
| Nanocellulose Materials – Different Cellulose, Different Functionality                                             | <i>Dieter Klemm,*<br/>Dieter Schumann,<br/>Friederike Kramer,<br/>Nadine Heßler,<br/>Daniel Koth,<br/>Barno Sultanova</i>      | 60  |
| Unconventional Cellulose Products Through Nucleophilic Displacement Reactions                                      | <i>Katrin Petzold-Welcke,<br/>Nico Michaelis,<br/>Thomas Heinze*</i>                                                           | 72  |
| Novel Cellulose Ethers: Synthesis and Structure Characterization of 3-Mono- <i>O</i> -(3'-hydroxypropyl) Cellulose | <i>Kristin Schumann,<br/>Annett Pfeifer,<br/>Thomas Heinze*</i>                                                                | 86  |
| Regioselectively Oxidized Cellulose Ethers                                                                         | <i>Xueqiong Yin,<br/>Andreas Koschella,<br/>Thomas Heinze*</i>                                                                 | 95  |
| Unconventional Reactivity of Cellulose Dissolved in Ionic Liquids                                                  | <i>Michael Schöbitz,<br/>Frank Meister,*<br/>Thomas Heinze</i>                                                                 | 102 |

|                                                                                                 |                                                                                                          |     |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----|
| Possibilities for the Physical Modification of Cellulose Shapes Using Ionic Liquids             | <i>Frank Wendler,*<br/>Birgit Kosan,<br/>Markus Krieg,<br/>Frank Meister</i>                             | 112 |
| Bio-Based Nanocomposites of Cellulose Acetate and Nano-Clay with Superior Mechanical Properties | <i>Mehdi Hassan-Nejad,<br/>Johannes Ganster,*<br/>Andreas Bohn,<br/>Manfred Pinnow,<br/>Bert Volkert</i> | 123 |
| Application of Modified Bead Cellulose as a Carrier of Active Ingredients                       | <i>Bert Volkert,*<br/>Bertram Wolf,<br/>Steffen Fischer,<br/>Ning Li, Chenhua Lou</i>                    | 130 |

|                         |                     |                           |          |
|-------------------------|---------------------|---------------------------|----------|
| <i>Adden, R.</i>        | 36                  | <i>Melander, C.</i>       | 36       |
| <i>Bohn, A.</i>         | 123                 | <i>Michaelis, N.</i>      | 72       |
| <i>Brendler, E.</i>     | 28                  | <i>Mischnick, P.</i>      | 36       |
| <i>Brinkmalm, G.</i>    | 36                  | <i>Peschel, D.</i>        | 28       |
| <i>Engelhardt, J.</i>   | 36                  | <i>Petzold-Welcke, K.</i> | 72       |
| <i>Fischer, K.</i>      | 54                  | <i>Pfeifer, A.</i>        | 86       |
| <i>Fischer, S.</i>      | 28, 54, 130         | <i>Philipp, B.</i>        | 4        |
| <i>Ganster, J.</i>      | 123                 | <i>Pinnow, M.</i>         | 123      |
| <i>Groth, T.</i>        | 28                  | <i>Schempp, W.</i>        | 4        |
| <i>Hassan-Nejad, M.</i> | 123                 | <i>Schmidt, I.</i>        | 54       |
| <i>Heßler, N.</i>       | 60                  | <i>Schöbitz, M.</i>       | 102      |
| <i>Heinze, T.</i>       | 15, 72, 86, 95, 102 | <i>Schumann, D.</i>       | 60       |
| <i>Klemm, D.</i>        | 60                  | <i>Schumann, K.</i>       | 86       |
| <i>Knarr, M.</i>        | 36                  | <i>Schurz, J.</i>         | 1        |
| <i>Kosan, B.</i>        | 112                 | <i>Sczostak, A.</i>       | 45       |
| <i>Koschella, A.</i>    | 95                  | <i>Sultanova, B.</i>      | 60       |
| <i>Koth, D.</i>         | 60                  | <i>Volkert, B.</i>        | 123, 130 |
| <i>Kramer, F.</i>       | 60                  | <i>Wendler, F.</i>        | 112      |
| <i>Krieg, M.</i>        | 112                 | <i>Wolf, B.</i>           | 130      |
| <i>Li, N.</i>           | 130                 | <i>Yin, X.</i>            | 95       |
| <i>Lou, C.</i>          | 130                 | <i>Zhang, K.</i>          | 28       |
| <i>Meister, F.</i>      | 102, 112            |                           |          |