

Book Review of Hyperbranched Polymers: Synthesis, Properties, and Applications

Hyperbranched Polymers: Synthesis, Properties, and Applications. Edited by Deyue Yan (Shanghai Jiao Tong University, China), Chao Gao (Zhejiang University, Hanzhou, China), and Holger Frey (Johannes-Gutenberg University Mainz, Germany). John Wiley & Sons, Inc.: Hoboken, NJ. 2011. xviii + 462 pp. \$149.95. ISBN 978-0-471-78014-4.

The aim of this timely book is to provide a thorough overview of the history, current status, and future prospects of the field of hyperbranched polymers. Given that such polymers are poised to make a tremendous impact, not only in polymer science but also in many other technological fields, an in-depth understanding of their synthesis, properties, and applications, as well as their limitations, is absolutely critical; fortunately, the editors have compiled all of the necessary information in one place. Included are complete discussions of the fundamental aspects of branched polymers, the methods utilized to prepare and characterize them, the effects on physical properties of introducing branching in polymers, theoretical aspects related to the synthesis and properties of branched polymers, and, finally, their current and potential applications. Whether a scientist has been working in the field of branched polymers for many years or has just recently begun to do so, a wealth of information is available in this new addition to the Wiley series on *Polymer Engineering and Technology*.

The descriptions of the main synthetic methodologies utilized to prepare these materials are reviewed in detail and include abundant historical and current references for further reading. The same can also be said for the sections on theory, physical properties, and applications. The final chapter is an excellent summary of the current status of the field in terms of not only what has been achieved but also the obstacles that must be overcome to fully realize the potential of branched polymers. If the reader is only looking to dig deeper into a few specific areas without having to wade through all of the preceding material, each of the chapters includes a sufficient level of introductory material to make this possible. Having set out to provide a comprehensive overview of the field of hyperbranched polymers, the editors have certainly achieved their objective. This volume should definitely be on the desk of anyone who has been, is currently, or is contemplating working in the field of branched polymers.

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