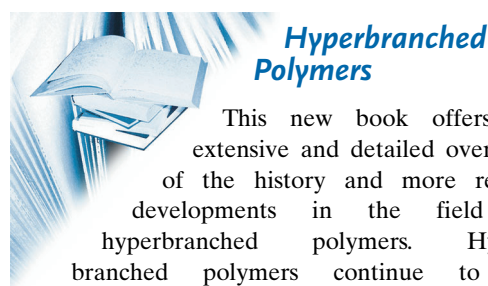


mend. It is a rather unsorted collection of chapters on various aspects, with varying depth and quality. If you want to read just one book on biofuels, instead try *Biomass to Biofuels: Strategies for Global Industries*, edited by H. P. Blaschek et al. (John Wiley & Sons, 2010). If you want more, there are better books on each of the areas covered by the *The Biofuels Handbook*.

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Hyperbranched Polymers

This new book offers an extensive and detailed overview of the history and more recent developments in the field of hyperbranched polymers. Hyperbranched polymers continue to be materials of topical interest and this text offers both a very useful introduction to those new to the subject and detailed and stimulating discussions for those with more experience in the field of hyperbranched polymers.

The breadth of the subject matter encompassed by the title *Hyperbranched Polymers* has grown in complexity, much as the structure of a hyperbranched polymer grows and this text describes in detail all of the major classes of synthetic strategies exploited to produce hyperbranched polymers including the step-growth polycondensation/polyaddition mechanisms and the vinyl chain-growth mechanisms. In addition to the expected chapters on polymer synthesis an informative chapter on the kinetic theory of hyperbranched polymerization is

included. The final two chapters on the emerging applications of hyperbranched polymers are particularly timely and give a vision towards the commercial future of these polymers.

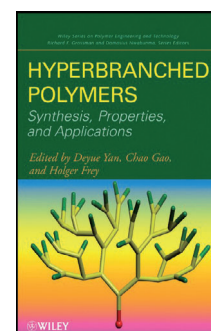
This book also makes a valiant attempt at dealing with the somewhat nebulous definition of a hyperbranched polymer and the inevitably vast range of architectures that fall under this definition. In the past twenty years or so the field of hyperbranched polymers has broadened from the classical, highly branched structure in which each monomer introduces the possibility of a branch point to include a multitude of architectures which are hybrids of hyperbranched structures containing linear unbranched segments. Two excellent chapters by Knauss (“Convergent Synthesis of Hyperbranched Polymers and Related Process”) and Guan (“Hyperbranched and Dendritic Polyolefins Prepared by Transition Metal Catalyzed Polymerization”) address these hybrid materials to a certain extent and there is some discussion of the Strathclyde route to (hyper)branched polymers in Chapter 7 but there are other related synthetic strategies which could have been included. Indeed discussion of the long-chain, hyperbranched polymers could easily have occupied another 50 pages or more. Perhaps the authors decided that this material is too peripheral to the core subject and maybe the range of architectural structures is simply too diverse for a single book but if so, wider referencing may have been desirable.

To conclude, this book is an excellent new addition to the field, with informative and up-to-date material to support both the teaching of the subject at undergraduate level and to stimulate new avenues of research.

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