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Journal of Carbohydrate Chemistry

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713617200>

Reviews on Oligosaccharide Synthesis

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To cite this Article Binkley, Roger W.(1988) 'Reviews on Oligosaccharide Synthesis', Journal of Carbohydrate Chemistry, 7: 2, vii – xi

To link to this Article: DOI: 10.1080/07328308808058924

URL: <http://dx.doi.org/10.1080/07328308808058924>

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REVIEWS ON OLIGOSACCHARIDE SYNTHESIS

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A list of the titles, authors, and references for significant review articles on oligosaccharide synthesis, published since 1980, is provided below. These articles are divided into three categories: (a) general reviews, (b) reviews limited in terms of subject matter covered, and (c) reviews limited to specific time periods. Within each group, articles are listed in chronological order. The purpose in establishing this list is to gather in a single place references to those review articles which contain a significant amount of information related to oligosaccharide synthesis. In addition to the title, authors, and other essential information, the number of references found in each article also is included to provide an indication of the potential of the article to direct the reader to the original literature. Finally, if a review was not written in English, the language used has been noted.

GENERAL REVIEWS

1. "Progress in the Selective Chemical Synthesis of Complex Oligosaccharides", H. Paulsen, *Angew. Chem.*, **94**, 184-201 (1982) (in German) and *Angew. Chem. Int. Ed.*, **22**, 155-173 (1982). (153 references)
2. "Selectivity and Reactivity in Oligosaccharide Synthesis", H. Paulsen in *Sel., Goal Synth. Effic., Proc. 14th Workshop Conf. Hoechst*; W. Bartmann and B. M. Trost, Eds.; Verlag Chem.: Weinheim, Fed. Rep. Ger., 1984, pp 169-190. (23 references)

3. "Synthesis of Complex Oligosaccharide Chains of Glycoproteins", H. Paulsen, *Chem. Soc. Rev.*, 13, 15-45 (1984). (32 references)
4. "Strategies in Oligosaccharide Synthesis", H. Paulsen in *Org. Synth.: Interdiscip. Challenge, Proc. 5th IUPAC Symp.*; J. Streith, H. Prinzbach, and G. Schill, Eds.; Blackwell: Oxford, UK, 1985, pp 317-35. (38 references).
5. "Syntheses of Complex Oligosaccharide Chains of Glycoconjugates," H. Paulsen, *Stud. Org. Chem. (Amsterdam)*, 25 (New Synthetic Methodology and Functionally Interesting Compounds), 243-70 (1986). (37 references)
6. "New Methods of Glycoside and Oligosaccharide Syntheses - Are There Alternatives to the Koenigs-Knorr Method?", R. R. Schmidt, *Angew. Chem.*, 98, 213-236 (1986) (in German) and *Angew. Chem. Int. Ed.*, 25, 212-235 (1986). (197 references)
7. "New Aspects of Glycoconjugate Synthesis", R. R. Schmidt in *Stereochem. Org. Bioorg. Transform., Proc. 17th Workshop Conf. Hoechst*; W. Bartmann and B. K. Sharpless, Eds.; Verlag Chem.: Weinheim, Fed. Rep. Ger., 1987, pp 169-189. (38 references)
8. "Oligosaccharide Synthesis", R. W. Binkley, *Modern Carbohydrate Chemistry* (Chapter 14), Marcel Dekker: New York, NY, 1988, 297-322. (30 references)

REVIEWS ON SELECTED TOPICS

1. "Syntheses of Oligosaccharides Concerned With Biological Recognition", T. Ogawa, *Kagaku to Seibutsu*, 20, 789-96 (1982). (29 references, in Japanese)
2. "Syntheses of Some Oligosaccharides Containing Alpha-Galactopyranosyl Groups and Reductive Cleavage of Acetals", H. Hultberg, *Chem. Commun., Univ. Stockholm*, (2) 1-39 (1982). (54 references)

3. "Synthesis of the Oligosaccharides of Flavonol-Triosides", A. Liptak, I. Riess-Maurer, and H. Wagner, *Stud. Org. Chem. (Amsterdam)*, 11 (Flavonoids and Bioflavonoids) 169-175 (1982). (18 references)
4. "Block Syntheses of Complex Oligosaccharides", H. Loenn, *Chem. Commun., Univ. Stockholm*, (2) 1-30 (1984). (44 references)
5. "Synthesis and Biological Activities of Bacterial Cell-wall and Cell-surface Complex Carbohydrates", A. Hasegawa and M. Kiso, *Yuki Gosei Kagaku Kyokaishi*, 42, 303-320 (1984). (106 references, in Japanese)
6. "Synthesis of Oligosaccharides of Aureolic Acids", J. Thiem, *Nachr. Chem., Tech. Lab.*, 32, 6-11 (1984). (41 references, in German).
7. "Synthesis of Some Oligosaccharides with D-Galacto- and D-Gluco-Configuration and Reductive Opening of Carbohydrate Acetals", S. Oscarson, *Chem. Commun., Univ. Stockholm*, (5) 1-38 (1985). (96 references)

REVIEWS COVERING SELECTED TIME PERIODS

1. "Mono-, Di-, and Trisaccharides and Their Derivatives", B. E. Davison, R. J. Ferrier, and N. R. Williams, *Carbohydr. Chem.*, 12, 1-212 (1981). (references primarily from 1978 literature)
2. "Mono-, Di-, and Trisaccharides and Their Derivatives", B. E. Davison, R. J. Ferrier, A. C. Richardson, and N. R. Williams, *Carbohydr. Chem.*, 13, 1-230 (1982). (1316 references, primarily from 1979 literature)
3. "Chemical Synthesis and Modification of Oligosaccharides, Polysaccharides, Glycoproteins, Enzymes, and Glycolipids", C. M. Sturgeon, *Carbohydr. Chem.*, 13, 572-703 (1982). (826 references, primarily from 1979 literature)
4. "Chemical Synthesis and Modification of Oligosaccharides, Polysaccharides, Glycoproteins, Enzymes, and Glycolipids", C. M. Sturgeon,

- Carbohydr. Chem.*, 14, 375-507 (1983). (864 references, primarily from the 1980 literature)
5. "Mono-, Di-, and Trisaccharides and Their Derivatives", N. R. Williams, *Carbohydr. Chem.*, 14 (A Specialist Periodical Report on Carbohydrate Chemistry, Pt. 1), 1-236 (1983). (references primarily from 1980 literature)
 6. "Mono-, Di-, and Trisaccharides and Their Derivatives", N. R. Williams, *Carbohydr. Chem.*, 15 (A Specialist Periodical Report on Carbohydrate Chemistry, Pt. 1), 1-277 (1983). (references primarily from 1981 literature)
 7. "Chemical Synthesis and Modification of Oligosaccharides, Polysaccharides, Glycoproteins, Enzymes, and Glycolipids, C. M. Sturgeon, *Carbohydr. Chem.*, 15, 618-771 (1983). (752 references)
 8. "Recent Advances in O-Glycosylation", S. Koto, N. Morishima, and S. Zen, *Yuki, Gosei Kagaku Kyokaiishi*, 41, 701-17 (1983). (168 references, in Japanese)
 9. "Mono-, Di- and Trisaccharides and Their Derivatives," N. R. Williams *Carbohydr. Chem.*, 16, 1-286 (1984). (references primarily from the 1982 literature)
 10. "Glycosides and Oligosaccharides", R. J. Ferrier, *Carbohydr. Chem.*, 16, 17-50 (1985). (204 references, primarily from the 1982 literature)
 11. "Carbohydrates", J. Thiem, *Annu. Rep. Prog. Chem., Sect. B*, 81B, 311-52 (1985). (236 references, primarily from the 1983-84 literature)
 12. "Glycosides and Disaccharides", N. R. Williams, B. E. Davison, R. J. Ferrier, and R. H. Furneaux, *Carbohydr. Chem.*, 17, 15-43 (1985). (178 references, primarily from the 1983 literature)
 13. "Mono-, Di-, and Trisaccharides and Their Derivatives", N. R. Williams, *Carbohydr. Chem.*, 17, 1-275 (1985). (references primarily from the 1983 literature)

14. "Oligosaccharides", N. R. Williams, B. E. Davison, R. J. Ferrier, and R. H. Furneaux, *Carbohydr. Chem.*, 17, 44-53 (1985). (60 references, primarily from the 1983 literature)

15. "Mono-, Di- and Trisaccharides and Their Derivatives", N. R. Williams, B. E. Davison, R. J. Ferrier, and R. H. Furneaux, *Carbohydr. Chem.*, 18, 1-293 (1986). (references primarily from the 1984 literature)