

Synthesis

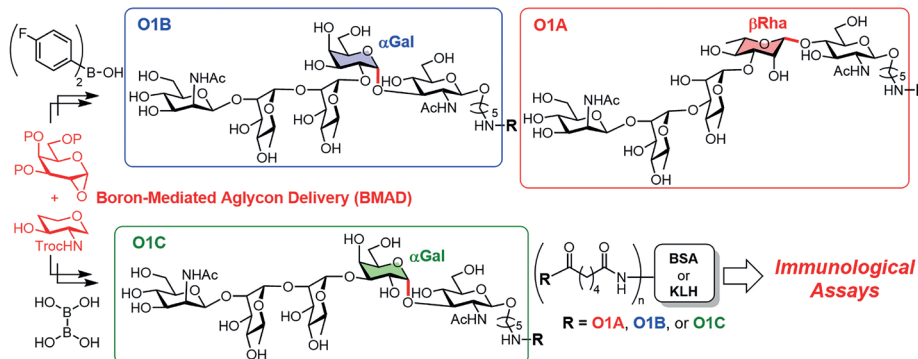
Reviews and Full Papers in Chemical Synthesis

March 15, 2024 • Vol. 56, 887–1041

Special Topic (Part I)

Emerging Trends in Glycoscience

Guest Editor: Vinod K. Tiwari



Synthesis and Immunological Evaluation of *Escherichia coli* O1-Derived Oligosaccharide–Protein Conjugates toward Avian Pathogenic *Escherichia coli* O1 Vaccine Development

K. Seki, T. Makikawa, K. Toshima, D. Takahashi

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Synthesis

Preface: Emerging Trends in Glycoscience

Editorial

Synthesis 2024, 56, 887–889
DOI: 10.1055/s-0042-1752048

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887

Synthesis

Recent Advances in the Synthesis and Application of C-2-Formyl Glycals

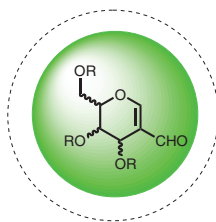
Review

Synthesis 2024, 56, 890–905
DOI: 10.1055/a-2066-1659

A. Arora
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Synthesis of C-2-Formyl Glycal

Vilsmeier–Haack formylation
By consecutive cyclization
XtalFluor-E based synthesis



C-2-Formyl Glycal

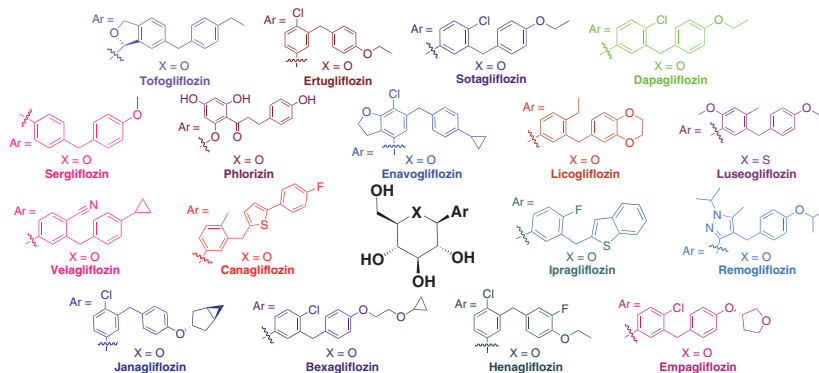
Application of C-2-Formyl Glycal

Synthesis of
various biologically /
pharmaceutically / industrially
important molecules

Synthesis 2024, 56, 906–943
DOI: 10.1055/s-0042-1751524

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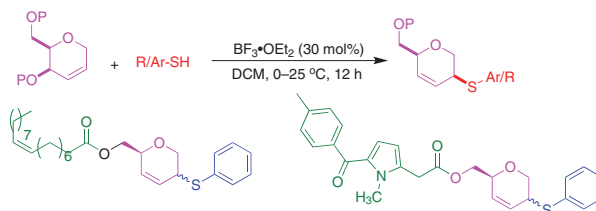
Dr. Reddy's Laboratories Ltd.,
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Synthesis 2024, 56, 944–952
DOI: 10.1055/a-2126-0815

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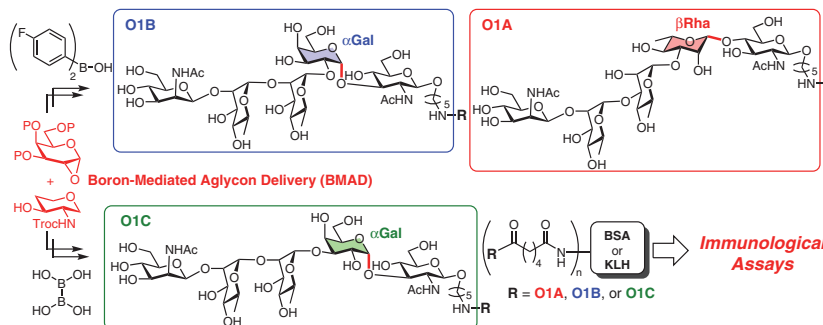
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Synthesis 2024, 56, 953–965
DOI: 10.1055/a-2152-0255

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Synthesis 2024, 56, 966–974
DOI: 10.1055/a-2149-4586

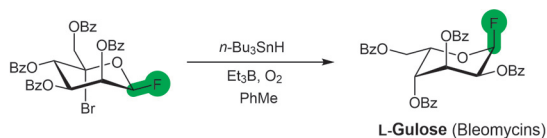
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C-5 Epimerisation of D-Mannopyranosyl Fluorides: The Influence of Anomeric Configuration on Radical Reactivity

Paper

966



Fluorine-directed synthesis

- Insights into glycosyl radical reactivity
- DFT-aided diagnosis of anomeric configuration
- Evidence for radical-based NGP of 6-benzoyloxy group

Synthesis

Synthesis 2024, 56, 975–988
DOI: 10.1055/a-2157-9001

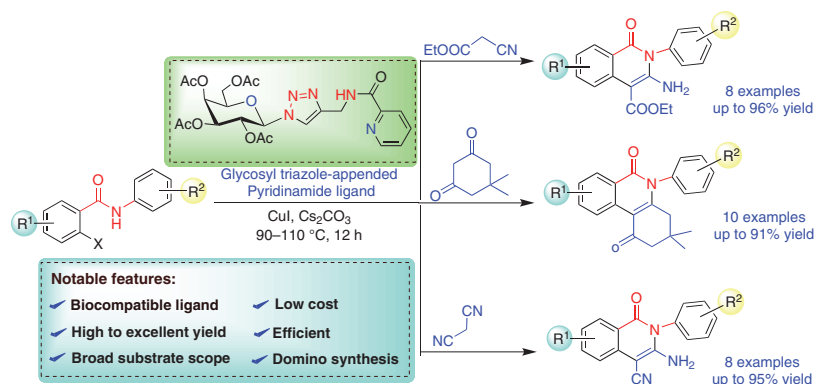
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Glycosyl Triazole Based Pyridinamide/CuI-Catalyzed Coupling of 2-Halobenzamides with Active Methylene Compounds

Paper

975



Synthesis

Synthesis 2024, 56, 989–998
DOI: 10.1055/a-2181-9709

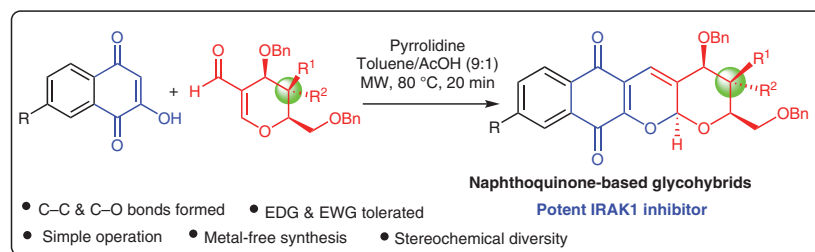
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Efficient Synthesis of Natural Product Inspired Naphthoquinone-Fused Glycohybrids and Their *In Silico* Docking Studies

Paper

989



Synthesis

Synthesis 2024, 56, 999–1006
DOI: 10.1055/a-2093-3528

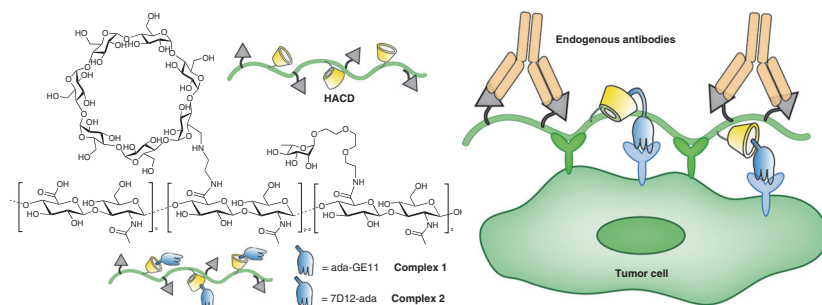
L. Zheng
Y. Li
H. Lin
H. Hong
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CD44 and EGFR Dual-Targeted Antibody-Recruiting Complex Based on Hyaluronic Acid Grafted with β -Cyclodextrrin and Multivalent Rhamnose for Cancer Immunotherapy

Paper

999



Synthesis

Synthesis 2024, 56, 1007–1016
DOI: 10.1055/s-0042-1751460

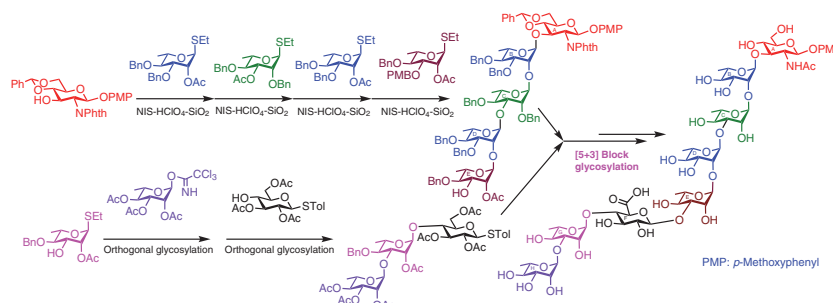
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Convergent Synthesis of the Octasaccharide Repeating Unit of the K55 Capsular Polysaccharide of *Acinetobacter baumannii* BAL_204 Strain

Paper

1007



(a) Use of thioglycosides and trichloroacetimidate derivative as glycosyl donors; (b) A combination of NIS and $\text{HClO}_4 \cdot \text{SiO}_2$ glycosylation promoter; (c) Construction of octasaccharide by [5+3] block glycosylation and functionalization.

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Synthesis 2024, 56, 1017–1025
DOI: 10.1055/a-2157-9100

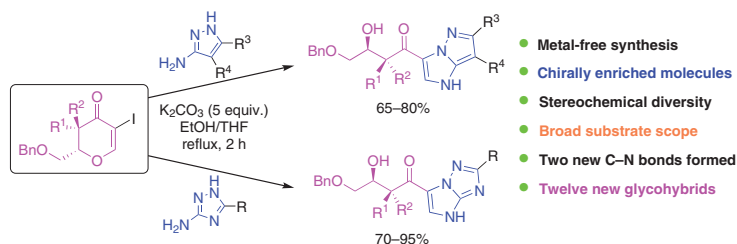
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Efficient Synthesis of Chirally Enriched 1*H*-Imidazo[1,2-*b*]pyrazole- and 4*H*-Imidazo[1,2-*b*][1,2,4]triazole-Based Bioactive Glycohybrids

Paper

1017



Synthesis

Synthesis 2024, 56, 1026–1034
DOI: 10.1055/a-2186-7116

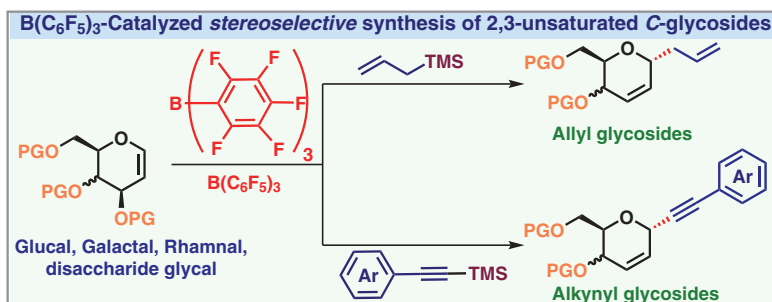
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Tris(pentafluorophenyl)borane-Catalyzed Stereoselective C-Glycosylation of Glycals: A Facile Synthesis of Allyl and Alkynyl Glycosides

Paper

1026



Synthesis

Synthesis 2024, 56, 1035–1041
DOI: 10.1055/s-0041-1738440

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Chemoenzymatic Synthesis of *arabino*-Configured Bicyclic Nucleosides

Paper

1035

