

Massachusetts Institute of Technology

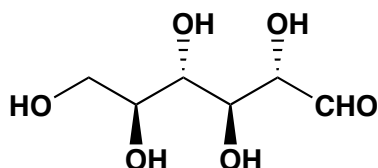
Organic Chemistry 5.512

May 15, 2006
Prof. Rick L. Danheiser

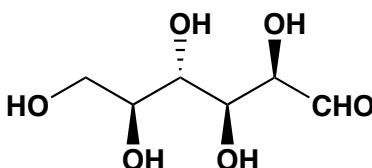
Case Study

Total Synthesis of the L-Hexoses

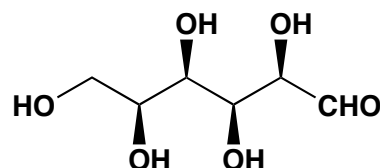
S. Y. Ko, A. W. M. Lee, S. Masamune, L. A. Reed, K. B. Sharpless, and F. J. Walker
Science **1983**, 220, 949



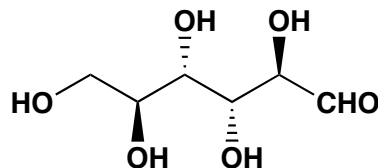
L-Allose



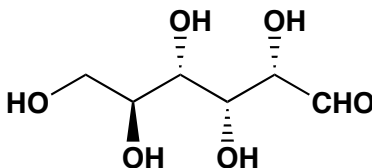
L-Altrose



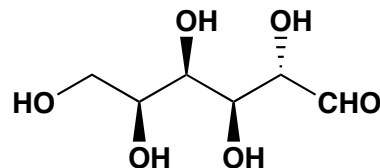
L-Idose



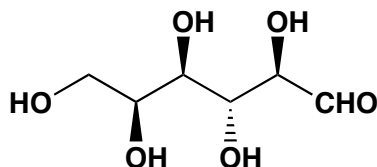
L-Mannose



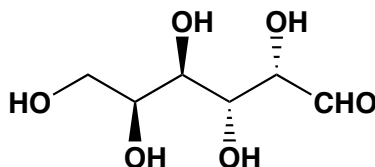
L-Glucose



L-Gulose

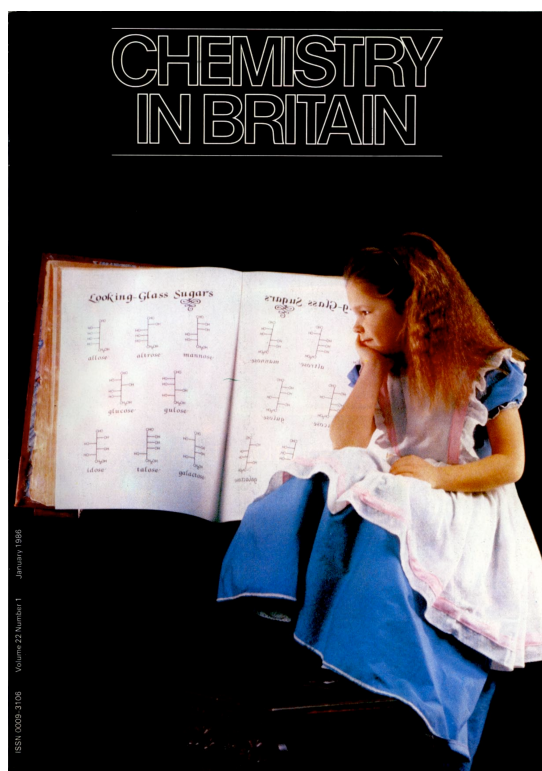


L-Talose



L-Galactose

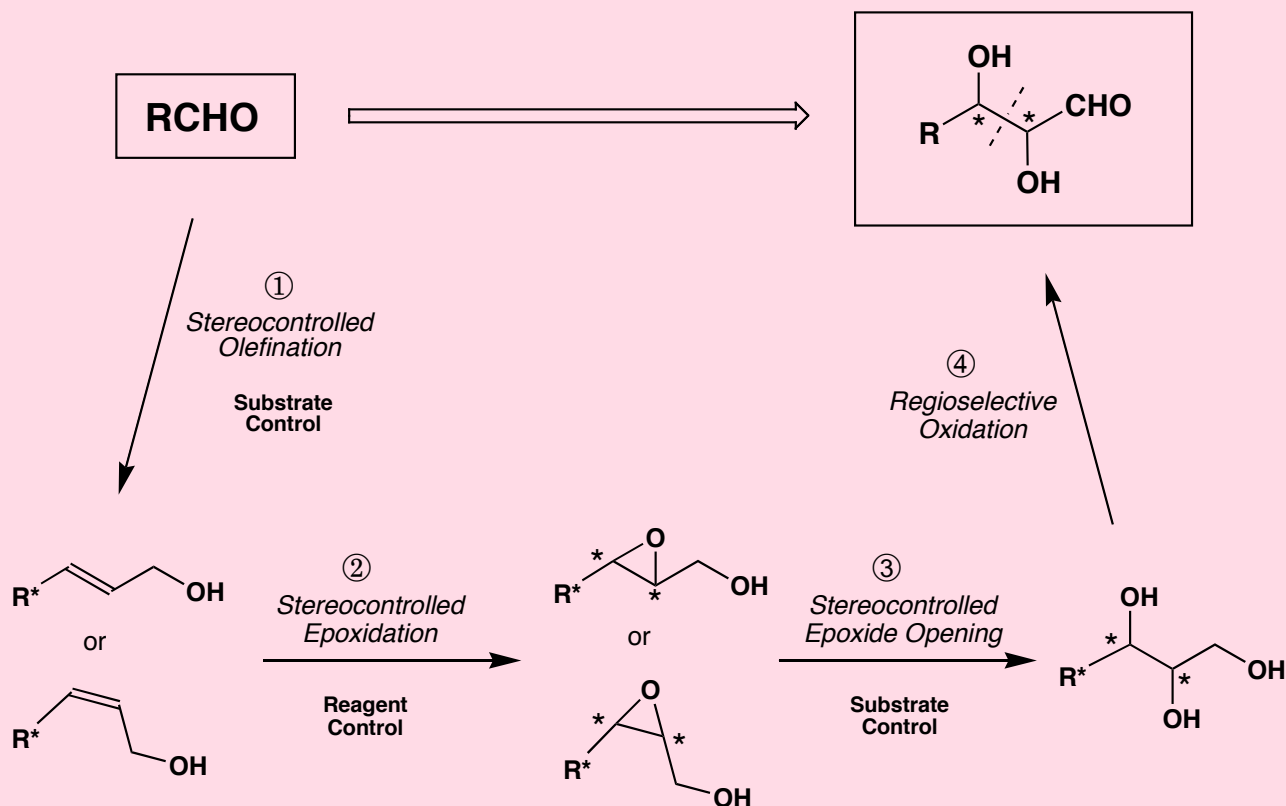
Total Synthesis of the L-Hexoses



"Looking Glass Sugars"

Hannah Sharpless
Chemistry in Britain **1986**, 22, 38

Overall Strategy



Total Synthesis of the L-Hexoses

