Supplementary Materials: Double Intramolecular Transacetalization of Polyhydroxy Acetals: Synthesis of Conformationally Restricted 1,3-Dioxanes with Axially Oriented Phenyl Moiety

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The Supplementary Materials contains representative 1H- and 13C-NMR spectra.









0.88-5.5 5.0 f1 (ppm) 10.0 9.5 9.0 8.5 8.0 7.5 7.0 6.5 6.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0

1.03-4 0.99-4 1.02-4 2.05-4

0.82-2.19-1.06-1.00-

-100

1.59-4 2.64-4

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Figure S2. ¹H- (top) and ¹³C-NMR spectrum (bottom) of 16.



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Figure S3. ¹H- (top) and ¹³C-NMR spectrum (bottom) of 11.





Figure S4. ¹H- (top) and ¹³C-NMR spectrum (bottom) of 17a.





Figure S5. 1H- (top) and 13C-NMR spectrum (bottom) of 12a.





Figure S6. ¹H- (top) and ¹³C-NMR spectrum (bottom) of **12b**.











Figure S8. ¹H- (top) and ¹³C-NMR spectrum (bottom) of 18b.



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Figure S9. ¹H- (top) and ¹³C-NMR spectrum (bottom) of 13a.



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Figure S10. 1H- (top) and 13C-NMR spectrum (bottom) of 13b.



Figure S11. ¹H-NMR spectrum of 14a.



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Figure S14. ¹H- (top) and ¹³C-NMR spectrum (bottom) of 21a.





Figure S15. 1H- (top) and 13C-NMR spectrum (bottom) of 23a.



Figure S16. ¹H-NMR spectrum of 19a.



Figure S17. ¹H-NMR spectrum of 22a.