Supplementary Material for Organic & Biomolecular Chemistry

Supplementary data

Studies on the Lewis acid mediated cleavage of α-aminoacetals: Synthesis of Novel 1,2-Aminoethers, and Evidence for α-Alkoxy Aziridinium Ion Intermediates.

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Correlation of ^{1}H NMR spectra between

the *syn* and *anti* diastereomeric series.

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Although actual chemical shifts differ considerably, the difference in chemical shift between the protons H_a and H_b is consistently greater in the *anti* stereoisomer than in the *syn*. In the case of the uracil adduct (**37** R = Bn), only the *syn* product is obtained, however, the value of δH_a-δH_b is comparable to that for the pyridone *syn* product (**38** R = Bn). Similarly, a comparison of the difference in chemical shifts of the diastereotopic *N*-benzylic methylene protons for *syn* and *anti* products (δH_c - δH_d) again reveals that in all cases where a comparison is available, the difference in chemical shifts is consistently greater for the products assigned as *syn* compared to those for the *anti*. In the case of the uracil adduct **37** the value of δH_c - δH_d is large, which is consistent with the other *syn* examples (Table S4).

Comparative data was only obtained for compounds comprising >10% in mixture.

Supplementary data

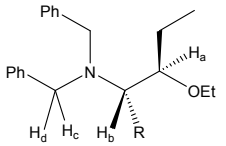
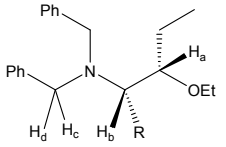
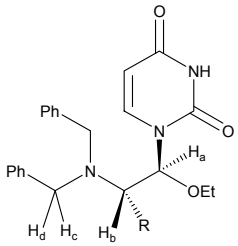
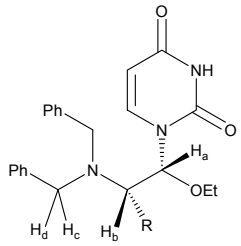
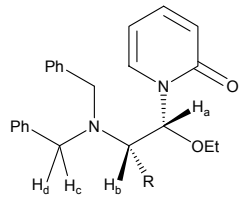
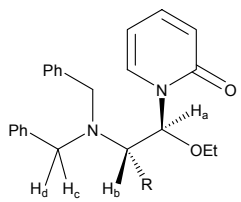
Product	R	δ H_a	δ H_b	δ H_a - δ H_b	δ H_c	δ H_d	δ H_c - δ H_d
 **36 (anti, major)**	Bn	3.60	2.89	0.71	3.79	3.56	0.23
 **41 (syn, minor)**	Bn	2.89	2.83	0.06	4.15	3.48	0.67
 **42 (anti, minor)**	Me	5.73	2.87	2.86	3.72	3.28	0.44
 **37 (syn, major)**	Bn	5.32	2.91	2.41	4.14	3.56	0.58
	Me	5.41	2.99	2.42	4.01	3.41	0.60
 **43 (anti, minor)**	Bn	6.41	3.20	3.21	3.76	3.56	0.20
	Me	6.27	2.92	3.35	3.74	3.31	0.43
 **38 (syn, major)**	Bn	5.92	3.28	2.64	4.12	3.67	0.45
	Me	5.99	3.03	2.96	4.03	3.54	0.49

Table S4. Correlation of ^{1}H NMR data of *syn* and *anti* products to confirm stereochemical assignments.