

Catalytic Asymmetric Mannich Reactions of Glycine  
Derivatives with Imines – A new Approach to Optically  
Active  $\alpha,\beta$ -Diamino Acid Derivatives

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**Supporting Information**

**X-ray Structure of 4b**

**X-ray work:** Crystals of **4b** are triclinic, space group P1, with unit cell at 120K:  $a = 11.099(1)\text{\AA}$ ,  $b = 15.508(2)\text{\AA}$ ,  $c = 16.210(2)\text{\AA}$ ,  $\alpha = 91.344(2)^\circ$ ,  $\beta = 100.149(2)^\circ$ ,  $\gamma = 92.319(2)^\circ$ ,  $V = 2743(1)\text{\AA}^3$ ,  $Z = 4$ ,  $\rho_{\text{calcd}} = 1.27$ ,  $\mu = 1.57\text{cm}^{-1}$  (MoK $\alpha$  radiation,  $\lambda = 0.71073\text{\AA}$ ),  $F(000) = 1104$ ,  $T = 120\text{K}$ . 21712 reflections collected on a SMART diffractometer, 18255 independent, 15695 significant ( $I > 3\sigma(I)$ ). Structure solved by means of the SIR97 program system.<sup>24</sup> Least squares refinement according to Rogers<sup>25</sup> included a parameter which is supposed to be 1.0 if the chirality is correct, -1.0 if it is wrong; the result is 1.16(17). The 15695 reflections used included 7355 Bijvoet pairs, 1368 parameters were refined, final  $R = 0.071$ ,  $R_w = 0.086$ . All 4 independent molecules have the same absolute configuration; they differ in the torsion angles around the central single bonds.



