ENANTIOSELECTIVE SYNTHESIS OF CYCLIC $\alpha$-AMINO KETONES

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The optically activ $\alpha$-amino ketones and the masked versions thereof are compounds which have found widespread use as precursors of physiologically important ethanolamine derivatives and as intermediates for the synthesis of a large variety of heterocyclic systems. An efficient and enantioselective synthetic approach to the cyclic $\alpha$-amino ketones with high enantiomeric purity has been developed.

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\begin{align*}
&\text{O} \\
&\text{R}_1
\end{align*}
\]

\[
\begin{align*}
&\text{NH}_2 \\
&\text{O} \\
&\text{R}_2
\end{align*}
\]

This new methodology is based on the enantioselective reduction of (E)-or (Z) oximethers of the corresponding 1,2-diketone derivatives. The enantiomeric excesses are determined by NMR spectroscopy via MTPA amides.