# P34: The asymmetric reduction of prochiral ketones using tetrabutylammonium fluoride, polymethylhydrosiloxane and biocatalysts, baker's yeast

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**Abstract:**

A range of prochiral acetophenone derivatives have been converted efficiently to the corresponding (R)- alcohols with > 80% yield and good enantioselectivities (up to 70% ee). Cyclic ketones are also reduced with high levels of stereoselectivity with PMHS in the presence of TBAF and baker's yeast, in particular 4-methylcyclohaxanone (trans: cis 84:16). High stereoselectivity is also observed in the reduction of 2-cyanobenzaldehyde and anti-imine was obtained in 71%.

**Key words:**asymmetric reduction, biocatalyst, backer's yeast, TBAF, PMHS