

# Synthesis of a Silanol-substituted Proline Analog as Organocatalyst

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A proline-derived silanol, was designed as a novel potential organocatalyst, and synthesized starting from the tetrazole **3**. The central idea was the combination of an acidic (tetrazole) and a basic functionality (pyrrolidine) with a silanol moiety in the same molecule. The synthesis of **7** was performed in four reaction steps starting with the tetrazole **3**. In the solid state (X-ray crystal structure analysis) the crucial functional groups show a favorable orientation. A chiral HPLC method and a chiral capillary electrophoresis method have been established for the investigation of the kinetic resolution of the racemic alcohols **9** and **11**. Acetylation reactions of alcohols were not accelerated by the organocatalyst **7**, and the produced *ee* values were rather low.

*Key words:* Proline-derived Tetrazole, Silanol, Organocatalyst, Kinetic Resolution of Alcohols, Chiral HPLC, Chiral Capillary Electrophoresis