2006 Sulfoxides

Sulfoxides Q 0600 40- 083

Oxidation of Prochiral Sulfides with Chiral Dioxirane. — Dioxirane, generated in situ from Oxone and a chiral pyranose, oxidizes sulfides to sulfoxides with an enantiomeric excess up to 26%. — (DIEVA, S. A.; ELISEENKOVA, R. M.; EFREMOV, Y. Y.; SHARAFUTDINOVA, D. R.; BREDIKHIN, A. A.; Russ. J. Org. Chem. 42 (2006) 1, 12-16; Arbuzov Inst. Org. Phys. Chem., Kazan Sci. Cent., Russ. Acad. Sci., Kazan 420088, Russia; Eng.) — K. Woydowski

$$R - S - Ar = \begin{bmatrix} PSP/Oxone, Na_2B_4O_7 \cdot 10H_2O \\ K_2CO_3, H_2O, -10°C, [pH 9] \\ \hline [-> a-c] MeCN \\ [-> d] Et_2O/MeCN \\ \end{bmatrix} + \begin{bmatrix} O - & a R: -Me : Ar: -Ph & 60% (11% e.e.) \\ P + & b R: -Pr : Ar: -Ph & 55% (14% e.e.) \\ R + & c R: -Me : Ar: -Tol & 48% (26% e.e.) \\ \hline (R) - II & d R: -Me : Ar: -MO_2 & 47% (6% e.e.) \\ \end{bmatrix}$$