SUPPORTING INFORMATION

Catalyzed asymmetric aryl transfer reactions to aldehydes with boronic acids as aryl source

Carsten Bolm* and Jens Rudolph

*Institut für Organische Chemie der RWTH-Aachen, Professor-Pirlet Strasse 1,
52074 Aachen, Germany.*

carsten.bolm@oc.rwth-aachen.de

HPLC-Analyses^{a,b}

α -(4-chlorophenyl)phenylmethanol (**1a**):

Chiralcel OB-H, 10% *i*-PrOH/heptane, 30 °C, 270 nm, 0.5 mL/min, (*R*): 21.3, (*S*): 32.1 min

α -(4-biphenyl)phenylmethanol (**1b**):

Chiralcel OD, 2% *i*-PrOH/heptane, 1.0 mL/min, (*R*): 55.9, (*S*): 63.0 min

α -(4-tolyl)phenylmethanol (**1c**):

Chiralcel OD, 2% *i*-PrOH/heptane, 0.9 mL/min, (*S*): 35.8, (*R*): 38.5 min

α -(ferrocenyl)phenylmethanol (**1d**):

Chiralcel OD, 7% *i*-PrOH/heptane, 1.0 mL/min, (*R*): 17.2, (*S*): 31.4 min

α -(2-methoxyphenyl)phenylmethanol (**1e**):

Chiralcel OD, 3% *i*-PrOH/heptane, 0.8 mL/min, (*S*): 41.1, (*S*): 46.6 min

α -(4-methoxyphenyl)phenylmethanol (**1g**):

Chiralcel AD, 5% *i*-PrOH/heptane, 0.7 mL/min, (*R*): 28.4, (*S*): 30.8 min

α -(1-naphthyl)phenylmethanol (**1h**):

Chiralcel OD-H, 20% *i*-PrOH/heptane, 0.5 mL/min, (*S*): 16.9, (*R*): 34.6 min

α -(2-bromophenyl)phenylmethanol (**1i**):

Chiralcel OD, 10% *i*-PrOH/heptane, 0.8 mL/min, (*R*): 12.4, (*S*): 17.6 min

α -(4-bromophenyl)phenylmethanol (**1j**):

Chiralcel OB-H, 10% *i*-PrOH/heptane, 0.5 mL/min, 30 °C, (*R*): 21.8, (*S*): 29.9 min

^a If not otherwise stated, all measurements were performed at 20 °C column temperature using a UV detector (254 nm). ^b Comparison of the HPLC peak elution order of **1a** with known data revealed that the *R* enantiomer was formed in excess in the phenyl transfer with **2** as catalyst. The other product configurations have been assigned assuming an analogous mechanism for the aryl transfer and based on the HPLC elution order.