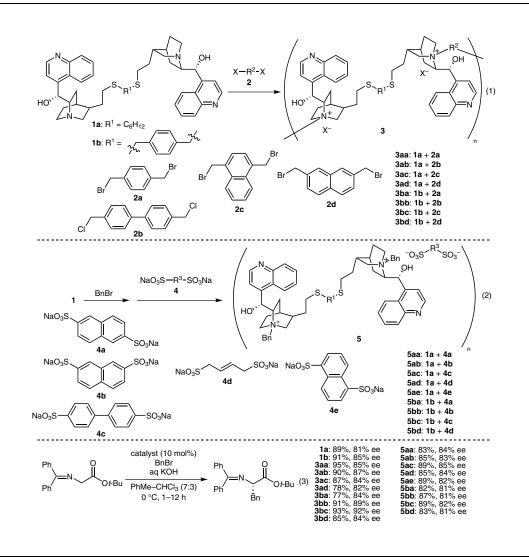
MD. R. ISLAM, P. AHAMED, N. HARAGUCHI, S. ITSUNO\* (TOYOHASHI UNIVERSITY OF TECHNOLOGY, JAPAN) Synthesis of Chiral Polymers Containing Thioetherified Cinchonidinium Repeating Units and Their Application to Asymmetric Catalysis *Tetrahedron: Asymmetry* **2014**, *25*, 1309–1315.

## Asymmetric α-Benzylation with Cinchonidium Salt Based Polymers



1.

**Comment:** The polymer catalysts were recovered

-40 °C to give the product with improved ee (with

3bc: 24 h, 83% yield, 95% ee). The catalytic activ-

by filtration and reused without loss of catalytic

performance. The reaction also took place at

ity and the stereoselectivity observed with the polymeric catalysts **3** and **5** were comparable to those obtained with the homogeneous catalysts

**Significance:** Chiral polymers **3** and **5** were prepared from cinchonidine dimers **1** (eqs. 1 and 2). All polymers showed high catalytic performance in the asymmetric  $\alpha$ -benzylation of *N*-diphenylmethylene glycine *tert*-butyl ester with benzyl bromide (eq. 3, 77–95% yield, 81–92% ee).

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Category

Polymer-Supported Synthesis

## Key words

cinchonidium salts

chiral polymers

asymmetric α-benzylation

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