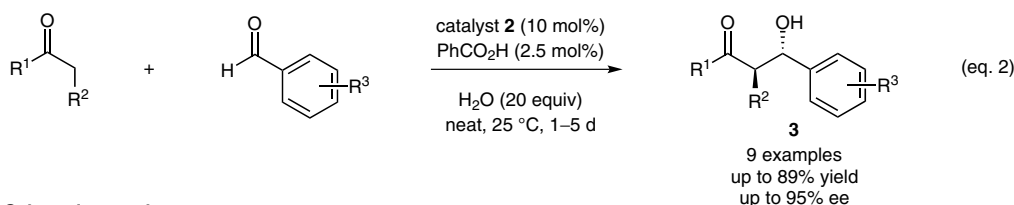
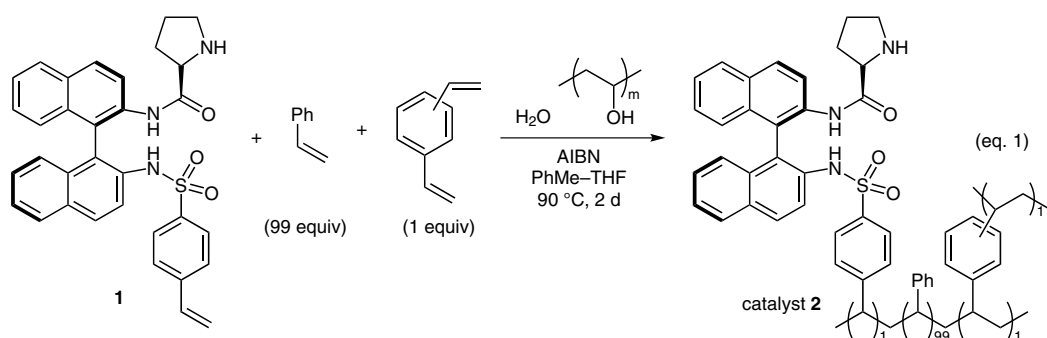
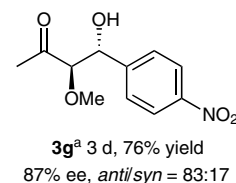
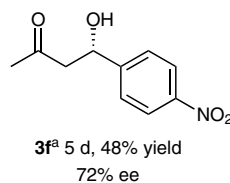
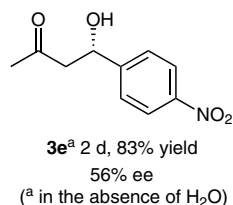
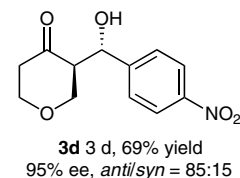
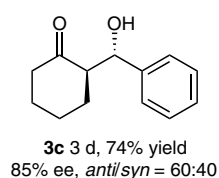
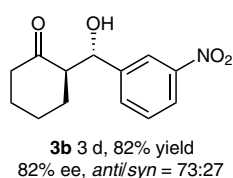
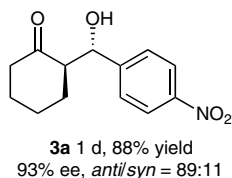


A. BAÑÓN-CABALLERO, G. GUILLENA,* C. NÁJERA* (UNIVERSIDAD DE ALICANTE, SPAIN)
Cross-Linked-Polymer-Supported *N*-{2'-[(Arylsulfonyl)amino][1,1'-binaphthalen]-2-yl}prolinamide as
Organocatalyst for the Direct Aldol Intermolecular Reaction under Solvent-Free Conditions
Helv. Chim. Acta **2012**, *95*, 1831–1841.

Asymmetric Aldol Reaction with BINAM-Sulfonyl Polymeric Organocatalyst



Selected examples:



Significance: The BINAM-sulfonyl polymeric organocatalyst **2** was prepared by the AIBN-promoted copolymerization of BINAM-derived sulfonamide **1**, styrene, and divinylbenzene (eq. 1). Polymer **2** catalyzed the asymmetric aldol reaction of aliphatic ketones with aromatic aldehydes to give the corresponding aldol products **3** in up to 89% yield with up to 95% ee (9 examples, eq. 2).

Comment: In the aldol reaction of cyclohexanone with 4-nitrobenzaldehyde, the catalyst was recovered by filtration and reused six times with a slight decrease in its catalytic activity (1st reuse: 90% yield, 90% ee, *anti/syn* = 87:13, 6th reuse: 77% yield, 92% ee, *anti/syn* = 86:16).

SYNFACTS Contributors: Yasuhiro Uozumi, Fumie Sakurai
Synfacts 2013, 9(1), 0114 Published online: 17.12.2012
DOI: 10.1055/s-0032-1317913; **Reg-No.:** Y14112SF