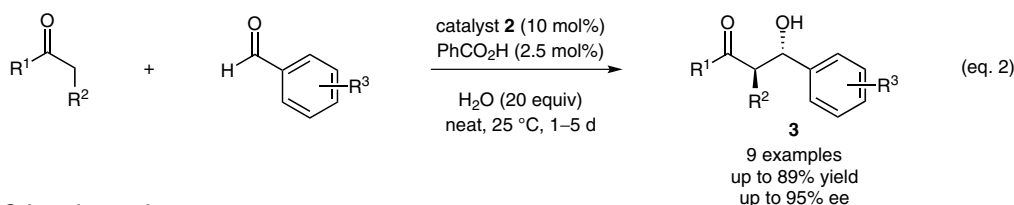
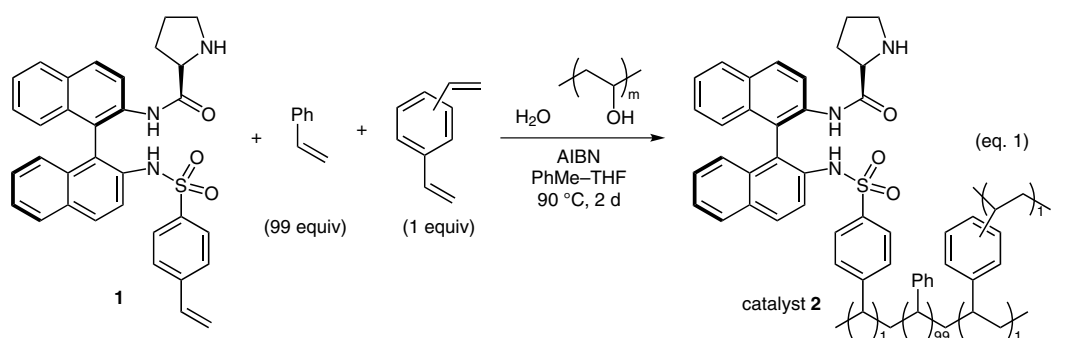
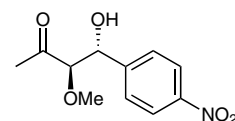
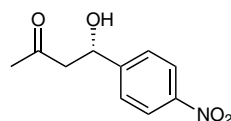
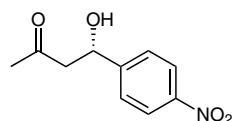
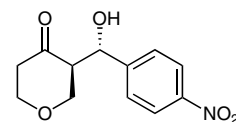
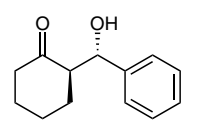
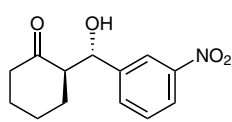
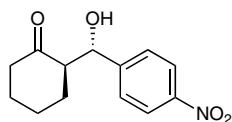


A. BAÑÓN-CABALLERO, G. GUILLENA,\* C. NÁJERA\* (UNIVERSIDAD DE ALICANTE, SPAIN)  
Cross-Linked-Polymer-Supported *N*-{2'-[(Arylsulfonyl)amino][1,1'-binaphthalen]-2-yl}prolinamide as  
Organocatalyst for the Direct Aldol Intermolecular Reaction under Solvent-Free Conditions  
*Helv. Chim. Acta* **2012**, *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 (1<sup>st</sup> reuse: 90% yield, 90% ee, *anti/syn* = 87:13, 6<sup>th</sup> reuse: 77% yield, 92% ee, *anti/syn* = 86:16).

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