

Supplementary Materials: Ultrasound-Assisted Enantioselective Esterification of Ibuprofen Catalyzed by a Flower-Like Nanobioreactor

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High performance liquid chromatography (HPLC) Analysis

An Agilent 1200 HPLC equipped with a YMC C18 column (150 mm × 4.6 mm; Greenherbs Co. Ltd, Beijing, China) was used for HPLC detection (flow rate, 1.6 mL/min; 280 nm). The mixture of acetonitrile-water-acetic acid-triethylamine (volume ratio: 60:40:0.1:0.02; pH 5.0) was used as mobile phase. (*R*)-fenoprofen was used as an internal standard (retention time was 9.8 min). The retention time of the produced ibuprofen ester was 6.3 min. The retention time of the (*S*)-ibuprofen and (*R*)-ibuprofen was 15.1 and 16.8 min, respectively.

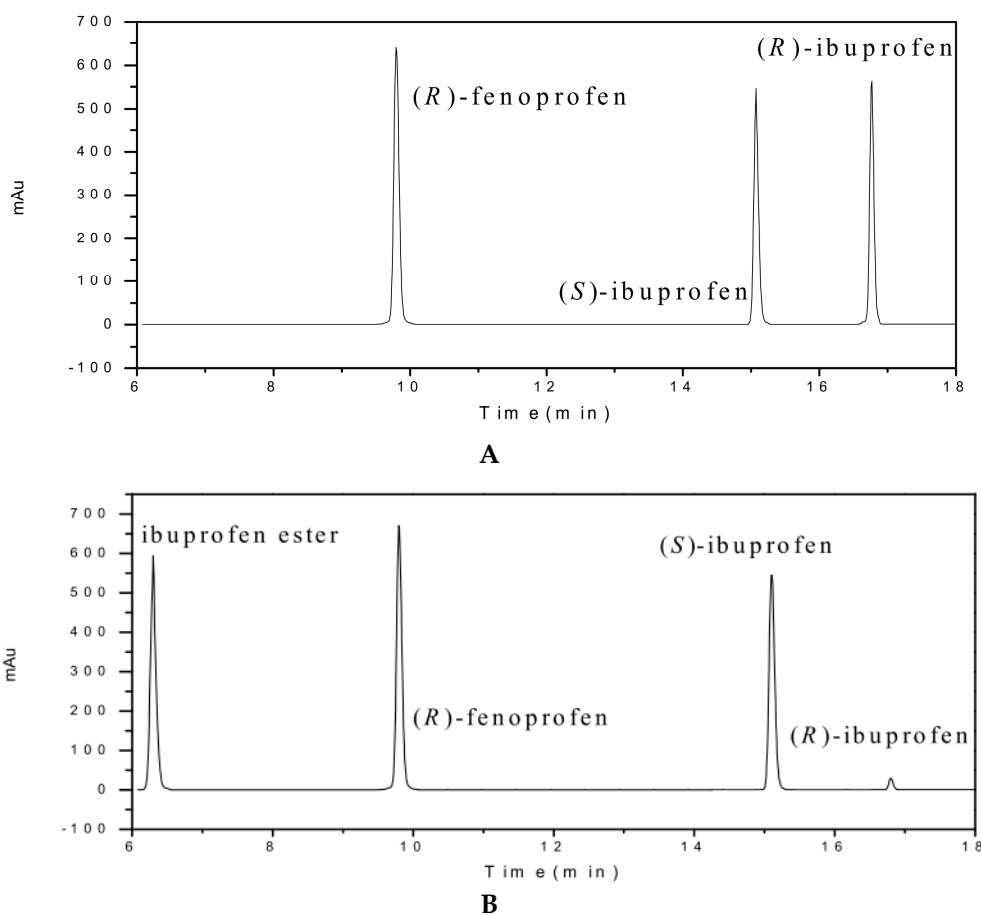


Figure S1. The chromatogram at the beginning of the reaction (before adding the enzyme) (A) and at the end of the bioconversion (B).

Electronic Supplementary Information

The SEM of the samples was observed by a JSM-6700F electron microscope (JEOL, Japan) with an acceleration voltage of 30 kV. The TEM of the samples was analyzed by using a FEI Tecnai G2 F20 s-twin D573 operated at 200 kV. Electronic Supplementary Information

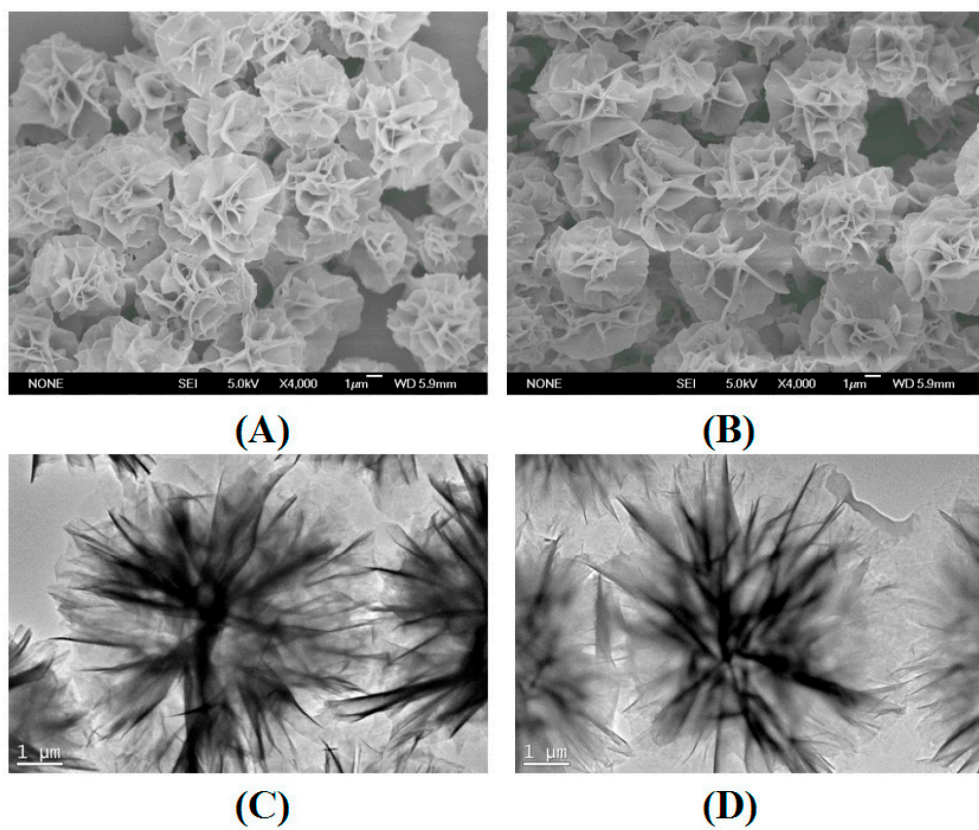


Figure S2. SEM and TEM of the prepared nanobioreactor. (A,C) The nanobioreactor before the reaction; (B,D) The recycled nanobioreactor after the tenth reaction batch.