



Fluorous Technologies, Inc.

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FTI News and Press Releases

Fluorous Technology Applied in Kinetic Resolution

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In a recent issue of *Organic Letters*, Dr. Zhiyong Luo of Fluorous Technologies, Inc. (FTI) in association with researchers at the University of Pittsburgh and ASCA GmbH of Berlin, Germany, reported a new kinetic resolution technique made possible by coupling an enzyme-catalyzed resolution with a fluorous triphasic separation system (*Organic Letters* **2002**, *4*, 2585). The article describes the kinetic resolution of a racemic fluorous ester with *Candida antarctica B* lipase to provide a mixture of enantio-enriched (R)-alcohol and unreacted fluorous (S)-ester. The mixture was then subjected to a fluorous triphasic separation technique to give both enantiomers of 1-(2-naphthyl)ethanol in high enantiomeric excess (ee) without further purification.

In commenting on the work, Dr. Luo said “the basic concept of combining our proprietary fluorous triphasic approach with enzyme catalysis to effect a kinetic resolution worked like a charm. The potential to isolate enantiopure compounds via this technique is extremely promising and will continue to be the subject of further research at FTI.”

Dr. Philip E. Yeske, Chief Operating Officer of FTI added further, “This collaborative work provides the first example of a chiral resolution using fluorous chemistry. Given the increased emphasis that is being placed on development of enantiopure drug substances, there is a genuine need in the marketplace for purification techniques that do not involve chiral chromatography. Strategically speaking, FTI will now look for partners to help develop the approach for commercial application.”

FTI (www.fluorous.com) is a Pittsburgh-based chemical technology company focused on the life sciences market. For further information, please contact FTI at 412-826-3050 or info@fluorous.com.