Microwave-Assisted Kinetic Resolution of (R,S)-1-Phenylethanol in Ionic Liquids

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Microwave-assisted organic synthesis (MAOS) have gained a remarkable interest over the past years because of its advantages - (i) rapid energy transfer and superheating, (ii) higher yield and rapid reaction, (iii) cleaner reactions. It is already known that ionic liquids (ILs) is better media for lipase-catalyzed reaction, and the production yield is higher than the conventional solvent-free system. In this study, a lipase-catalyzed kinetic resolution in ionic liquids were performed by MAOS and conventional heating methods to compare them in energy consumption, reaction time, production yield. And enzyme studies (enzyme activity and stability, enzyme recovery) were also performed.