## Chiral dihydrobenzofuran-based diphosphine (BICMAP): Optical resolution and application to rhodium(I)-catalyzed asymmetric 1,4-addition of aryland alkenylboronic acids to cyclic enones

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A chiral dihydrobenzofuran-based diphosphine ligand (BICMAP) has been prepared using the optical resolution technique using O,O-dibenzoyltartaric acid (DBTA). The absolute configuration of BICMAP was determined by single-crystal X-ray analysis of the (+)-BICMAP/(–)-DBTA complex. BICMAP-rhodium system was an efficient catalyst for the rhodium(I)-catalyzed asymmetric 1,4-addition of aryl- and alkenylboronic acids to cyclic enones including chromone up to 99% ee.

【研究室の HP】 http://chem.tf.chiba-u.jp/gacb06/index.html