## Catalytic Asymmetric Synthesis of Mixed 3,3'-Bisindoles and Their Evaluation as Wnt Signaling Inhibitors

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## - Hot Paper

Ph Ph Ts N OH Br 
$$\frac{IAP2}{V}$$
 NO<sub>2</sub> (11 mol %)  $\frac{IAP2}{V}$  Cu(OTf)<sub>2</sub> or CuOTf (10 mol %)  $\frac{IAP2}{V}$  toluene HFIP  $\frac{IAP2}{V}$  HFIP  $\frac{IAP2}{V}$  HFIP  $\frac{IAP2}{V}$   $\frac{IAP2}{V}$  NH Biological Evaluation: Wnt Signaling Inhibitor

The first efficient catalytic asymmetric coupling reaction of indoles with isatin-derived nitroalkenes was accomplished by using a complex consisting of a chiral imidazoline aminophenol ligand (IAP2; see scheme) and Cu(OTf)<sub>2</sub>. Biological activity of the newly formed chiral 3,3'-bisindoles was also confirmed in a Wnt signaling inhibitory assay.

## 【研究室の HP】

http://synthesis.chem.chiba-u.jp/index.htm http://www.p.chiba-u.ac.jp/lab/kouzou/index.html