



**step 1:** Sugiyama, H.; Yoshida, M.; Mori, K.; Kawamoto, T.; Sogabe, S.; Takagi, T.; Oki, H.; Tanaka, T.; Kimura, H.; Ikeura, Y. Synthesis and structure activity relationship studies of benzothieno[3,2-b]furan derivatives as a novel class of IKK beta inhibitors. *Chem. Pharm. Bull.* **2007**, *55*, 613–624; **step 2:** Chen, A. C.-Y.; Dube, D.; Fournier, P.-A.; Grimm, E. L.; Lacombe, P.; Laliberte, S.; MacDonald, D.; MacKay, D. B.; McKay, D. J.; Wu, T. Y.-H.; Campeau, L.-C.; Scott, J. P.; Bremeyer, N. Preparation of 3,4-substituted piperidine derivatives as renin inhibitors for treatment of cardiovascular events and renal insufficiency. *PCT Int. Appl.*, 2009135299, 2009; **step 3:** a) Egami, H.; Katsuki, T. Fe(salan)-Catalyzed Asymmetric Oxidation of Sulfides with Hydrogen Peroxide in Water. *J. Am. Chem. Soc.* **2007**, *129*, 8940–8941; b) Bolm, C.; Bienewald, F. Asymmetric Sulfide Oxidation with Vanadium Catalysts and H<sub>2</sub>O<sub>2</sub>. *Angew. Chem. Int. Ed. Engl.* **1995**, *34*, 2640 - 2642; c) Bolm, C.; Bienewald, F. Asymmetric Oxidation of Dithioacetals and Dithioketals catalyzed by a Chiral Vanadium Complex. *Synlett* **1998**, 1327 - 1328; d) Legros, J.; Bolm, C. Iron-Catalyzed Asymmetric Sulfide Oxidation with Aqueous Hydrogen Peroxide. *Angew. Chem. Int. Ed.* **2003**, *42*, 5487 - 5489; e) Legros, J.; Bolm, C. A Highly Enantioselective Iron-Catalyzed Sulfide Oxidation with Aqueous Hydrogen Peroxide under Simple Reaction Conditions. *Angew. Chem. Int. Ed.* **2004**, *43*, 4225 - 4228; f) Legros, J.; Bolm, C. Investigations on the Iron-Catalyzed Asymmetric Sulfide Oxidation *Chem. Eur. J.* **2005**, *11*, 1086 - 1092; g) Legros, J.; Dehli, J.R.; Bolm, C. Applications of Catalytic Asymmetric Sulfide Oxidations to the Syntheses of Biologically Active Sulfoxides. *Adv. Synth. Catal.* **2005**, *347*, 19 - 31; **step 4:** Yu, H.; Li, Z.; Bolm, C. Iron(II)-Catalyzed Direct Synthesis of NH Sulfoximines from Sulfoxides. *Angew. Chem. Int. Ed.* **2018**, *57*, 324–327; **step 5:** Stoss, P.; Satzinger, G. 3-Oxobenzo[d]isothia(IV)-azole 1-Oxides. *Angew. Chem. Int. Ed. Engl.* **1971**, *10*, 76; **step 6:** many procedures known; **step 7:** Hayano, T.; Sakaguchi, T.; Furuno, H.; Ohba, M.; Okawa, H.; Inanaga, Novel Cerium(III)-(R)-BNP Complex as a Storable Chiral Lewis Acid Catalyst for the Enantioselective Hetero-Diels-Alder Reaction *J. Chem. Lett.* **2003**, *32*, 608–609; **step 8:** Ikota, N.; Sakai, H.; Shibata, H.; Koga, K. Stereo-selective Reactions. XI. Asymmetric Alkylation of Cyclohexanone via Chiral Chelated Lithioenamines Derived from D-Camphor Derivatives. *Chem. Pharm. Bull.* **1986**, *34*, 1050–1055; **To receive the correct enantiomer in high ee values screening of the ligand and reaction conditions is necessary;**; **step 9:** many procedures known; **step 10:** Yan, P.; Batamack, P.; Prakash, G. K. S.; Olah, G. A. Gallium (III) triflate catalyzed Beckmann rearrangement. *Catal. Lett.* **2005**, *103*, 165–168; **step 11:** Delorme, D.; Woo, S. H.; Vaisburg, A. Preparation of hydroxamic acids as inhibitors of histone deacetylase. *PCT Int. Appl.*, 2001070675, 2001.