

REFERENCES

1. Seebach, D.; Beck, A. K.; Heckel, A., TADDOLs, Their Derivatives, and TADDOL Analogues: Versatile Chiral Auxiliaries. *Angewandte Chemie International Edition* **2001**, *40*, 92–138.
2. Seebach, D.; Beck, A. K.; Brenner, M.; Gaul, C.; Heckel, A., From Synthetic Methods to γ -Peptides-From Chemistry to Biology. *Chimia* **2001**, *55*, 831–838.
3. Altava, B.; Burguete, M. I.; Escuder, B.; Luis, S. V.; Salvador, R. V.; Fraile, J. M.; Mayoral, J. A.; Royo, A. J., Polymer-Grafted Ti-TADDOL Complexes. Preparation and Use as Catalysts in Diels–Alder Reactions. *The Journal of Organic Chemistry* **1997**, *62*, 3126–3134.
4. Altava, B.; Burguete, M. I.; Fraile, J.; Garcia, J.; Luis, S. V.; Mayoral, J.; Royo, A. J.; Vicent, M. J., TADDOL–TiCl₂ catalyzed Diels–Alder reactions: unexpected influence of the substituents in the 2-position of the dioxolane ring on the stereoselectivity. *Tetrahedron: Asymmetry* **1997**, *8*, 2561–2570.
5. Faller, J. W.; Adrien R. L.; Parr, J., Chiral Poisoning and Asymmetric Activation. *Chemical Reviews* **2003**, *103*, 3345–3368.
6. Wen, J.; Zhao, J.; You, T., Asymmetric pinacol coupling catalyzed by TADDOL–titanium complexes. *Journal of Molecular Catalysis A: Chemical* **2006**, *245*, 278–280.
7. Pellissier, H., Use of TADDOLs and their derivatives in asymmetric synthesis. *Tetrahedron* **2008**, *64*, 10279–10317.
8. Novak, T.; Schindler, J.; Ujj, V.; Czugler, M.; Fogassy, E.; Keglevich, G., Resolution of 3-methyl-3-phospholene 1-oxides by molecular complex formation with TADDOL derivatives. *Tetrahedron: Asymmetry* **2006**, *17*, 2599–2602.
9. Sheen, W. S.; Gau, H. M., Synthesis of titanium–TADDOLate complexes containing bidentate nitrogen donors and the asymmetric ethylation of benzaldehyde. *Inorganica Chimica Acta* **2004**, *357*, 2279–2284.

10. Hua, Z.; Vassar, V. C.; Ojima, I., Synthesis of new chiral monodentate phosphite ligands and their use in catalytic asymmetric hydrogenation. *Organic Letters* **2003**, 5, 3831–3834.
11. Kang, S. W.; Ko, D. H.; Kim, K. H.; Ha, D. C., Highly enantioselective additions of diethylzinc to aldehydes using 2-triflamido-methyl-2'-hydroxy-1,1'-binaphthyl. *Organic Letters* **2003**, 5, 4517–4519.
12. Krause, N.; Hoffmann, R. A., Recent advances in catalytic enantioselective Michael additions. *Synthesis* **2001**, 2, 171–196.
13. James, D. M.; Mosher, H. S., *Asymmetric Organic Reactions*. Prentice-Hall: Washington D. C., 1971.
14. Procter, G., *Asymmetric Synthesis*. Oxford University press New York, 1996.
15. Kitamura, M.; Okada, S.; Suga, S.; Noyori, R., Enantioselective addition of dialkylzincs to aldehydes promoted by chiral amino alcohols. Mechanism and nonlinear effect. *Journal of the American Chemical Society* **1989**, 111, 4028–4036.
16. McMurry, J.; Simanek, E., *Fundamental of Organic Chemistry*. 6th ed.; Graphic World: USA, 2007.
17. Solomons, G. T.W.; Fryhle, C. B., *Organic Chemistry*. 4th ed.; John Wiley & Sons: Hoboken, 2004.
18. Gondi, V. B.; Gravel, M.; Rawal, V. H., Hydrogen bond catalyzed enantioselective vinylogous Mukaiyama aldol Reaction. *Organic Letters* **2005**, 7, 5657–5660.
19. Adam, W.; Alsters, P. L.; Neumann, R.; Saha-Moller, C. R.; Seebach, D.; Zhang, R., Highly efficient catalytic asymmetric epoxidation of allylic alcohols by an oxovanadium-substituted polyoxometalate with a regenerative TADDOL-derived hydroperoxide. *Organic Letters* **2003**, 5, 725–728.
20. Adam, W.; Beck, A. K.; Pichota, A.; Saha-Moller, C. R.; Seebach, D.; Vogl, N.; Zhang, R., Control of enantioselectivity through a hydrogen-bonded template in the vanadium(V)–catalyzed epoxidation of allylic alcohols by optically active hydroperoxides. *Tetrahedron: Asymmetry* **2003**, 14, 1355–1361.

21. Yang, H. W.; Romo, D., Studies of the asymmetric [2+2] cycloaddition of silylketenes and aldehydes employing Ti-TADDOL catalysts. *Tetrahedron Letters* **1998**, 39, 2877–2880.
22. Alexakis, A.; Vastra, J.; Burton, J.; Benhaim, C.; Mangeney, P., Asymmetric conjugate addition of diethyl zinc to enones with chiral phosphorus ligands derived from TADDOL. *Tetrahedron Letters* **1998**, 39, 7869–7872.
23. Garrett, M. R.; Tarr, J. C.; Johnson, J. S., Enantioselective Metallophosphite-Catalyzed C-Acylation of Nitrones. *Journal of the American Chemical Society* **2007**, 129, 12944–12945.
24. Reetz, M. T.; Kukenhohner, T.; Weinig, P., Enantioselective addition of chirally modified methyltitanium reagents to aromatic aldehydes. *Tetrahedron Letters* **1986**, 27, 5711–5714.
25. Kimura, K.; Sugiyama, E.; Ishizuki, T.; Kunieda, T., Dramatic reversal of enantioselectivity in β -aminoalcohol-catalyzed addition of diethylzinc to aldehydes. *Tetrahedron Letters* **1992**, 33, 3147–3150.
26. Yokoyama, K.; Ishizuka, T.; Kunieda, T., The efficient enantiodivergence of (*dl*)-1,3-diacetyl-2-imidazolidinethiones by enantioselective catalytic deacetylation. *Tetrahedron Letters* **1999**, 40, 6285–6288.
27. Kanth, J. V. B.; Brown, H. C., A new catalytic enantioselective reducing reagent system from (–)- α,α -diphenylpyrrolidinemethanol and 9-borabicyclo[3.3.1]nonane, especially effective for hindered and substituted aralkylketones. *Tetrahedron* **2002**, 58, 1069–1074.
28. Patil, M. N.; Gonnade, R. G.; Joshi, N. N., Synthesis, resolution, and applications of 3-amino-2,2-dimethyl-1,3-diphenylpropan-1-ol, a conformationally restricted 1,3-aminoalcohol. *Tetrahedron* **2010**, 66, 5036–5041.
29. Qian, C. T.; Gao, F. F.; Sun, J., First application of amino-TADDOL derivatives in enantioselective addition of diethylzinc to aryl aldehydes: effect of substituents on the nitrogen atom. *Tetrahedron: Asymmetry* **2000**, 11, 1733–1740.

30. Mikami, K.; Kataoka, S.; Wakabayashi, K.; Aikawa, K., Chiral aminoalcohol NOBIN for instantaneous chirality control of racemic butyros BIPHEP–Rh(I)–complexes: highly enantioselective ene-type cyclization of 1,6-enynes catalyzed by the Rh(I)–complexes without use of acid. *Tetrahedron Letters* **2006**, 47, 6361–6364.
31. Kongsaree, P.; Meepowpan, P.; Thebtaranonth, Y., Synthesis of both enantiomers of methylenolactocin, nephrosterinic acid and protolichsterinic acid *via* tandem aldol–lactonization reactions. *Tetrahedron: Asymmetry* **2001**, 12, 1913–1992.
32. Jongkol, R., Syntheses of tetrahydro-4'-carboxymethoxy-5'-alkyl-2'-furanone-3'-spiro-11-9,10-dihydro-9,10-ethanoanthracenes as precursors for preparation of *trans*-paraconic acids in optically pure forms. Ph.D. Dissertation, Faculty of science, Chiang Mai University, Chiang Mai, Thailand, 2011.