

研究業績リスト（寺田眞浩）

<原著論文（Communication & Full Paper）>

- 1 Asymmetric Glyoxylate-Ene Reaction Catalyzed by Chiral Titanium Complexes: A Practical Access to α -Hydroxy Esters in High Enantiomeric Purities
K. Mikami, M. Terada, T. Nakai
J. Am. Chem. Soc., **111**, 1940-1941 (1989)
- 2 Various Chiral Dialkoxy Titanium Complexes as an Asymmetric Catalyst for Glyoxylate-Ene Reaction
K. Mikami, M. Terada, T. Nakai
Chem. Express, **4**, 589-592 (1989)
- 3 Catalytic Asymmetric Glyoxylate-Ene Reaction: A Practical Access to α -Hydroxy Esters in High Enantiomeric Purities
K. Mikami, M. Terada, T. Nakai
J. Am. Chem. Soc., **112**, 3949-3954 (1990).
- 4 Aminoaldehyde-Ene Reaction: Stereoselective Route to β -Amino Alcohols
K. Mikami, M. Kaneko, T.-P. Loh, M. Terada, T. Nakai
Tetrahedron Lett., **31**, 3909-3912 (1990).
- 5 Remarkable Positive Nonlinear Effect in the Enantioselective Glyoxylate-Ene Reaction Catalysed by a Chiral Titanium Complex
M. Terada, K. Mikami, T. Nakai
J. Chem. Soc., Chem. Commun., 1623-1624 (1990).
- 6 Enantioselective Hetero-Diels-Alder Reaction with Glyoxylate Catalyzed by Chiral Titanium Complex: Asymmetric Synthesis of the Lactone Portion of Mevinolin and Compactin
M. Terada, K. Mikami, T. Nakai
Tetrahedron Lett., **32**, 935-938 (1991).
- 7 Chiral Titanium Complex-Catalyzed Diels-Alder Reaction: A Practical Route to Anthracycline Intermediates
K. Mikami, M. Terada, Y. Motoyama, T. Nakai
Tetrahedron Asymmetry, **2**, 643-646 (1991).
- 8 Asymmetric Catalysis by Chiral Titanium Perchlorate for Carbonyl-Ene Cyclization
K. Mikami, M. Terada, E. Sawa, T. Nakai
Tetrahedron Lett., **32**, 6571-6574 (1991).
- 9 Asymmetric Catalysis by Chiral Titanium Perchlorate for Carbonyl-Ene Cyclization
K. Mikami, E. Sawa, M. Terada
Tetrahedron Asymmetry, **2**, 1408-1412 (1991).

- 10 Unique Catalysis by Eu(dppm)₃: Catalytic Molecular Recognition in Aldol and Michael Reactions
K. Mikami, M. Terada, T. Nakai
J. Org. Chem., **56**, 5456-5459 (1991).
- 11 Lanthanide(III) Catalyzed Aldol Reactions of Glyceraldehyde Acetonide with Ketene Silyl Acetals: Catalytic Asymmetric Route to Mono-saccharides
K. Mikami, M. Terada, T. Nakai
Tetrahedron Asymmetry, **2**, 993-996 (1991).
- 12 Chiral Titanium Complex-Catalyzed Carbonyl-Ene Reaction with Glyoxylate: Remarkable Positive Nonlinear Effect
K. Mikami, M. Terada
Tetrahedron, **48**, 5671-5680 (1992).
- 13 Stereo-Modulating Catalysis by Europium(III) Complexes in Aldol Reactions of Chiral α -Alkoxy Aldehydes with Ketene Silyl Acetals
M. Terada, J.-H. Gu, D. C. Deka, K. Mikami, T. Nakai
Chem. Lett., 29-32 (1992).
- 14 Asymmetric Desymmetrization by Enantioselective Catalysis of Carbonyl-Ene Reaction: Remote Internal Asymmetric Induction
K. Mikami, S. Narisawa, M. Shimizu, M. Terada
J. Am. Chem. Soc., **114**, 6566-6568 (1992).
- 15 Unique Stereocontrol in Lanthanide(III)-Catalyzed Aldol Reactions with the Ketene Silyl Acetal of (*R*)-3-Hydroxybutanoate
J.-H. Gu, M. Terada, K. Mikami, T. Nakai
Tetrahedron Lett., **33**, 1465-1468 (1992).
- 16 Unique Stereocontrol in Europium(III)-Catalyzed Cyanosilylation of Chiral α -Alkoxy and α -Amino Aldehydes
J.-H. Gu, M. Okamoto, M. Terada, K. Mikami, T. Nakai
Chem. Lett., 1169-1172 (1992).
- 17 Control of Chelation/Nonchelation Stereoselections in Lanthanide-Catalysed Aldol Reactions
K. Mikami, M. Terada, T. Nakai
J. Chem. Soc., Chem. Commun., 343-345 (1993).
- 18 Enantiomerically Pure Compound Synthesis by Asymmetric Glyoxylate-Ene Reaction with Vinylic Sulfides and Selenides Catalyzed by a Chiral Titanium Complex
M. Terada, S. Matsukawa, K. Mikami
J. Chem. Soc., Chem. Commun., 327-328 (1993).

- 19 Asymmetric Catalysis of Ene-Type Reaction with Fluoral by Chiral Titanium Complex: A Semi-empirical and Ab-initio Analysis of Ene Reactivity
K. Mikami, T. Yajima, M. Terada, T. Uchimarui
Tetrahedron Lett., **34**, 7591-7594 (1993).
- 20 Enantio- and Diastereoselective Catalysis of Addition Reaction of Allylic Silanes and Stannanes to Glyoxylate Catalyzed by Binaphthol-Derived Titanium Complex
S. Aoki, K. Mikami, M. Terada, T. Nakai
Tetrahedron, **49**, 1783-1790 (1993).
- 21 Binaphthol-derived Titanium μ -Oxo Complex: A New Type of Asymmetric Catalysts for Carbonyl-Ene Reaction with Glyoxylate
M. Terada, K. Mikami
J. Chem. Soc., Chem. Commun., 833-834 (1994).
- 22 Designed Binaphthol-derived Titanium Complexes: A New Type of Asymmetric Catalysts for Carbonyl-Ene Reaction with Glyoxylate
K. Mikami, Y. Motoyama, M. Terada
Inorg. Chim. Acta, **222**, 71-75 (1994).
- 23 Asymmetric Catalysis of Diels-Alder Cycloadditions by an MS-free Binaphthol -Titanium Complex: Dramatic Effect of MS, Linear vs Nonlinear Relationship, and Synthetic Applications
K. Mikami, Y. Motoyama, M. Terada
J. Am. Chem. Soc., **116**, 2812-2820 (1994).
- 24 Diastereoselective and Enantioselective Catalysis of Carbonyl-Ene Reaction with Fluoral
K. Mikami, T. Yajima, M. Terada, E. Kato, M. Maruta
Tetrahedron Asymmetry, **5**, 1087-1090 (1994).
- 25 Diastereoselective and Enantioselective Glyoxylate-Ene Reaction Catalyzed by A New Class of Binaphthol-Derived Titanium Complex
M. Terada, Y. Motoyama, K. Mikami
Tetrahedron Lett., **35**, 6693-6696 (1994).
- 26 An Europium(III) Complex As an Efficient Catalyst for the Michael Reaction of α,β -Enones with Ketene Silyl Acetals: LIS-NMR Analysis for the Transition State through Complexation between Europium (III) Catalyst and Enones
M. Terada, T. Nakai, K. Mikami
Inorg. Chim. Acta, **222**, 377-380 (1994).
- 27 Double Asymmetric Synthesis by Asymmetric Catalytic Carbonyl-Ene Type Reaction with Chiral Ene Components: Asymmetric Catalytic Synthesis of Aspartyl Dipeptide Sweetener
M. Terada, N. Sayo, K. Mikami

Synlett, 411-415 (1995).

- 28 Asymmetric Catalysis of (Hetero) Diels-Alder Cycloadditions by a Modified Binaphthol-Derived Titanium Complex
Y. Motoyama, M. Terada, K. Mikami
Synlett, 967-968 (1995).
- 29 Periselective and Enantioselective Carbonyl-Ene Reaction of Isoprene with Fluoroalkyl Glyoxylate Catalyzed by Modified Binaphthol-Titanium Complex: Asymmetric Catalytic Synthesis of Enantiomerically Pure Ipsdienol
M. Terada, K. Mikami
J. Chem. Soc., Chem. Commun., 2391-2392 (1995).
- 30 Asymmetric Catalysis of Carbonyl-Ene and Aldol Reactions with Fluoral by Chiral Binaphthol-Derived Titanium Complex
K. Mikami, T. Yajima, T. Takasaki, S. Matsukawa, M. Terada, T. Uchimaru, M. Maruta
Tetrahedron, **52**, 85-98 (1996).
- 31 Binaphthol-Titanium Complex-Catalyzed Fluoral-Ene Reaction with Vinyl Sulfides for Asymmetric Synthesis of Diastereomeric α -Trifluoromethyl- β -methyl Carbinols: Diastereomer Switch of Antiferroelectric or Ferroelectric Properties of Diastereomeric Liquid-Crystalline Systems
K. Mikami, T. Yajima, N. Siree, M. Terada, Y. Suzuki, I. Kobayashi
Synlett, 837-838 (1996).
- 32 Diastereotopic Phenomena for the Appearance of SmCA* Phase in α -Trifluoromethyl- β -methyl-substituted Liquid Crystalline Molecules
K. Mikami, T. Yajima, M. Terada, S. Kawauchi, Y. Suzuki, I. Kobayashi
Chem. Lett., 861-862 (1996).
- 33 Direct Transition from SmA to Anti-ferroelectric, Ferroelectric, or Unknown Phases of Diastereomeric Liquid-Crystalline Molecules with Varying Enantiomeric Purities
K. Mikami, T. Yajima, M. Terada, Y. Suzuki, I. Kobayashi
Chem. Commun., 57-58 (1997).
- 34 Anomalous Role of Molecular Sieves 4A in the Preparation of Binaphthol-Derived Active μ_3 -Oxo Titanium Catalyst
M. Terada, Y. Matsumoto, M. Tanaka, Y. Nakamura, K. Mikami
Chem. Commun., 281-282 (1997).
- 35 Diastereomer Effects on Antiferroelectricity and Ferroelectricity of the Newly Synthesized Liquid Crystals
I. Kobayashi, Y. Suzuki, T. Yajima, S. Kawauchi, M. Terada, K. Mikami
Molecular Crystals and Liquid Crystals, **303**, 165-170 (1997).

- 36 Self-Assembly of Several Components into a Highly Enantioselective Ti Catalyst for Carbonyl-Ene Reaction
K. Mikami, S. Matsukawa, T. Volk, M. Terada
Angew. Chem., Int. Ed. Engl., **36**, 2768-2771 (1997).
- 37 Asymmetric Activation of Racemic Ruthenium(II) Complexes for Enantioselective Hydrogenation
T. Ohkuma, H. Doucet, T. Pham, K. Mikami, T. Korenaga, M. Terada, and R. Noyori
J. Am. Chem. Soc., **120**, 1086-1087 (1998).
- 38 "Symmetry" in the Synthesis of the A-Ring of a Vitamin D Hybrid Analogue with Significant Transactivation Activity: A Combinatorial Sequence of Regioselective Propiolate-Ene, Catalytic Enantioselective Epoxidation and Carbonyl-Ene Cyclization Reactions
K. Mikami, A. Osawa, A. Isaka, E. Sawa, M. Shimizu, M. Terada, N. Kubodera, K. Nakagawa, N. Tsugawa, and T. Okano
Tetrahedron Lett., **39**, 3359-3362 (1998).
- 39 The Effect of Counter Cations in Zeolites on the Efficient Preparation of the Binaphthol-Titanium Complex
M. Terada, Y. Matsumoto, Y. Nakamura, K. Mikami
J. Mol. Catal. A, **132**, 165-169 (1998).
- 40 Asymmetric Activation of Chiral BINOL-Zirconium Catalysts: Effect of a Product-Like Activator
T. Volk, T. Korenaga, S. Matsukawa, M. Terada, K. Mikami
Chirality, **10**, 717-721 (1998).
- 41 Efficient Preparation of Binaphthol-Derived Active μ_3 -Oxo Titanium Catalyst by Using Hydrated Na-Zeolites (Molecular Sieves)
K. Mikami, M. Terada, Y. Matsumoto, M. Tanaka, Y. Nakamura
Microporous Mesoporous Mater., **21**, 461-466 (1998).
- 42 Singly Dehydroxylated A-Ring Analogues of 19-Nor-1 α ,25-dihydroxyvitamin D₃ and 19-Nor-22-oxa-1 α ,25-dihydroxyvitamin D₃: Novel Vitamin D₃ Analogues with Potent Transcriptional Activity but Extremely Low Affinity for Vitamin D Receptor
K. Nakagawa, N. Tsugawa, K. Mikami, M. Terada, A. Osawa, K. Ozono, N. Kubodera, T. Okano
Biol. Pharm. Bull., **21** [12], 1300-1305 (1998).
- 43 Catalytic C-H Bond Activation-Asymmetric Olefin Coupling Reaction: The First Example of Asymmetric Fujiwara-Moritani Reaction Catalyzed by Chiral Palladium(II) Complexes
K. Mikami, M. Hatano, M. Terada
Chem. Lett., [1], 55-56 (1999).

- 44 Effects of Conformation of Diastereomer Liquid Crystals on The Preference of Antiferroelectricity
I. Kobayashi, Y. Suzuki, T. Yajima, S. Kawauchi, T. Imase, M. Terada, K. Mikami
Mol. Cryst. Liq. Cryst. Sci. Technol. Sect. A, **328**, 131-137 (1999).
- 45 Conformationally Flexible Biphenylphosphine Ligands for Ru-Catalyzed Enantioselective Hydrogenation
K. Mikami, T. Korenaga, M. Terada, T. Ohkuma, T. Pham, and R. Noyori
Angew. Chem. Int. Ed. Engl., **38** [4], 495-497 (1999).
- 46 Highly Efficient and Practical Optical Resolution of 2-Amino-2'-hydroxy-1,1'-binaphthyl by Molecular Complexation with N-Benzylcinchonidium Chloride: A Direct Transformation to Binaphthyl Amino Phosphine
K. Ding, Y. Wang, H. Yun, J. Liu, Y. Wu, M. Terada, Y. Okubo, K. Mikami
Chem. Eur. J., **5** [6], 1734-1737 (1999).
- 47 Spontaneous Chiral Resolution in a Fluid Smectic Phase of a Racemic Diastereomer
Y. Takanishi, H. Takezoe, I. Kobayashi, Y. Suzuki, T. Yajima, M. Terada, K. Mikami
Angew. Chem. Int. Ed., **38**, 2354-2357 (1999).
- 48 BINOL-Ti-Catalyzed Carbonyl-Ene Cyclization by Tuning the 6-Br-Ligand for the Synthesis of 2-Methyl-19-nor-22-oxa Vitamin D Analogue with Significant Differentiation Activity
K. Mikami, Y. Koizumi, A. Osawa, M. Terada, H. Takayama, K. Nakagawa, and T. Okano
Synlett, [12], 1899-1902 (1999).
- 49 Tandem (Domino) and Two-Directional Asymmetric Catalysis of Carbonyl-Ene Reaction with Fluoral: Fluoral-Ene Approach to Modeling of Inter-Smectic Layer Interaction of Antiferroelectric Liquid Crystals
K. Mikami, T. Yajima, N. Siree, M. Terada, Y. Suzuki, I. Kobayashi, Y. Takanishi, H. Takezoe
Synlett, [12], 1895-1898 (1999).
- 50 Molecular Assembly of BINOL-Ti Complexes into Active μ_3 -Oxo Titanium Catalyst
M. Terada, Y. Matsumoto, Y. Nakamura, K. Mikami
Inorg. Chim Acta, **296**, 267-272 (1999).
- 51 Diastereomer Liquid Crystalline CF₃ Molecules: Conformational Probe for (Anti)ferroelectricity and Spontaneous Resolution of the Racemates
K. Mikami, T. Yajima, J. Kojima, M. Terada, S. Kawauchi, H. Shirasaki, K. Okuyama, Y. Suzuki, I. Kobayashi, Y. Takanishi, H. Takezoe
Mol. Cryst. Liq. Cryst., **346**, 41-49 (2000).
- 52 Catalytic Asymmetric Syntheses and Biological Activities of a Series of Singly Dehydroxylated 19-Nor-1 α ,25-dihydroxyvitamin D₃ A-ring Analogs in Cancer Cell

Differentiation and Apoptosis

T. Okano, K. Nakagawa, N. Kubodera, A. Isaka, A. Osawa, M. Terada, K. Mikami
Chem. Biol., **7** [3], 173-184 (2000).

- 53 Highly Enantioselective Palladium-Catalyzed Ene-type Cyclization of 1,6-Enyne
M. Hatano, M. Terada, K. Mikami
Angew. Chem. Int. Ed., **40** [1], 249-253 (2001).
- 54 Tetranuclear Titanium 7,7'-Modified Binaphtholate Cluster as a Novel Chiral Lewis Acid Catalyst
K. Mikami, M. Ueki, Y. Matsumoto, and M. Terada
Chirality, **13** [9], 541-544, (2001).
- 55 Dynamic Chirality Control of (Xyl-)BIPHEP Ligands Leading to their Diastereomerically Pure Ru Complexes with a Chiral N-Substituted DPEN
T. Korenaga, K. Aikawa, M. Terada, S. Kawauchi, and K. Mikami
Adv. Synth. Catal., **343** [5], 284-288 (2001).
- 56 Chiral Brønsted Acid-Catalyzed Direct Mannich Reactions via Electrophilic Activation
D. Uraguchi and M. Terada
J. Am. Chem. Soc., **126** [17], 5356-5357 (2004).
- 57 Organocatalytic Asymmetric Aza-Friedel-Crafts Alkylation of Furan
D. Uraguchi, K. Sorimachi, and M. Terada
J. Am. Chem. Soc., **126** [38], 11804-11805 (2004).
- 58 Organocatalytic Asymmetric Direct Alkylation of α -Diazoester via C-H Bond Cleavage
D. Uraguchi, K. Sorimachi, and M. Terada
J. Am. Chem. Soc., **127** [26], 9360-9361 (2005).
- 59 Novel Metal-Free Lewis Acid Catalysis by Phosphonium Salts through Hypervalent Interaction
M. Terada and M. Kouchi
Tetrahedron SIP on Organocatalysis, **62** [2-3], 401-409 (2006).
- 60 Phosphorodiamidic Acid as a Novel Structural Motif of Brønsted Acid Catalysts for Direct Mannich Reaction of *N*-Acyl Imines with 1,3-Dicarbonyl Compounds
M. Terada, K. Sorimachi, and D. Uraguchi
Synlett, [1], 133-136 (2006).
- 61 Axially Chiral Guanidine as Enantioselective Base Catalyst for 1,4-Addition Reaction of 1,3-Dicarbonyl Compounds with Conjugated Nitroalkenes
M. Terada, H. Ube, and Y. Yaguchi
J. Am. Chem. Soc., **128** [5], 1454-1455 (2006).

- 62 High Substrate/Catalyst Organocatalysis by Chiral Brønsted Acid for Enantioselective Aza-Ene Type Reaction
M. Terada, K. Machioka, and K. Sorimachi
Angew. Chem. Int. Ed., **45** [14], 2254-2257 (2006).
- 63 Efficient Synthetic Protocol for Substituted Guanidines via Copper(I)-Mediated Intermolecular Amination of Isothiourea Derivatives
H. Ube, D. Uraguchi, M. Terada
J. Organometal. Chem., in press.

<特許>

- 1 (発明の名称) Production of optically active alpha-hydroxy carboxylates from olefins and glyoxylates using binaphthol-titanium catalysts.
(発明者) 三上幸一、寺田眞浩、中井武、佐用昇、雲林秀徳
(出願者) 高砂香料工業株式会社
(公開番号) Eur. Pat. Appl. (1990), EP-A2-1990458503
- 2 (発明の名称) Preparation of 5,6-2H-dihydropyran-6-carboxylic acid derivatives by stereoselective cycloaddition of butadienes with glyoxylic acid esters.
(発明者) 三上幸一、寺田眞浩、中井武、佐用昇
(出願者) 高砂香料工業株式会社
(公開番号) 特開 1 9 9 2 - 5 3 1 0 6 8
- 3 (発明の名称) Process for producing optically active dihydropyran derivative.
(発明者) 三上幸一、寺田眞浩、中井武、佐用昇
(出願者) 高砂香料工業株式会社
(公開番号) Can. Pat. Appl. (1992), CA-AA-1992591688
- 4 (発明の名称) Process and catalysts for preparing optically active beta-hydroxyketones.
(発明者) K. Mikami, S. Matsukawa, M. Shimizu, M. Terada, N. Sayo
(出願者) 高砂香料工業株式会社
(公開番号) Eur. Pat. Appl. (1994), EP-A1-1995758610
- 5 (発明の名称) Preparation of optically active halo hydroxy olefins.
(発明者) 三上幸一、矢島智子、松川覚、寺田眞浩、丸田順道
(出願者) セントラル硝子株式会社
(公開番号) 特開 1 9 9 5 - 2 4 9 0 3 5
- 6 (発明の名称) Manufacture of optically active halogenated hydroxy carbonyl compounds.
(発明者) 三上幸一、矢島智子、松川覚、寺田眞浩、丸田順道
(出願者) セントラル硝子株式会社
(公開番号) 特開 1 9 9 5 - 2 7 5 3 8 0
- 7 (発明の名称) Manufacture of polyfluoral and polychloral by using titanium complex

catalysts.

(発明者) 三上幸一、大澤紋子、矢島智子、寺田眞浩

(出願者) セントラル硝子株式会社

(公開番号) 特開 1 9 9 7 - 6 1 8 8 0 0

- 8 (発明の名称) Process for producing optically active alcohols by catalytic hydrogenation of ketones

(発明者) R. Noyori, K. Mikami, T. Ohkuma, M. Terada, H. Doucet, T. M. Pham, C. Trang, T. Korenaga, M. Ito, N. Sayou

(出願者) 高砂香料工業株式会社

(公開番号) Eur. Pat. Appl. (1999), EP-A1-19990317

- 9 (発明の名称) Method for producing palladium complex compound

(発明者) T. Kume, S. Narizuka, M. Koide, K. Mikami, M. Hatano, M. Terada, M. Ishida, Y. Morino

(特許出願人) セントラル硝子株式会社

(公開番号) Eur. Pat. Appl. (2000), EP-A2-001008601

- 10 (発明の名称) パラジウム錯化合物

(発明者) 三上幸一、波多野学、寺田眞浩、久米孝司

(特許出願人) セントラル硝子株式会社

(公開番号) 特開 2 0 0 1 - 1 3 9 5 8 8

- 11 (発明の名称) フッ素化剤および 1 - アルコキシ - 2, 3 エポキシ化合物への求核的開環フッ素化による 1 - アルコキシ - 2 - フルオロ - 3 - ヒドロキシ化合物の製造方法

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(公開番号) 特開 2 0 0 2 - 3 3 8 5 0 8

- 12 (発明の名称) アミン類の製造法

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(国際出願番号) PCT/JP2005/000962

(国際出願日) 2005 年 1 月 26 日

(国際公開番号) WO 2005/070875 A1

(国際公開日) 2005 年 8 月 4 日

- 13 (発明の名称) グアニジン化合物及びそれを用いる不斉反応 (A 出願)

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(国際出願番号) PCT/JP2005/001943

(国際出願日) 2005 年 2 月 9 日

(国際公開番号) WO 2005/077908 A1

(国際公開日) 2005 年 8 月 25 日

- 14 (発明の名称) グアニジン化合物及びそれを用いる不斉反応 (B 出願)
(発明者) 寺田眞浩・宇部仁士・清水英雄
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(国際出願番号) PCT/JP2005/001944
(国際出願日) 2005 年 2 月 9 日
(国際公開番号) WO 2005/077921 A1
(国際公開日) 2005 年 8 月 25 日

<総説、解説>

- 1 カルボニル-エン反応：新しい鎖状立体制御法 (Carbonyl-Ene Reaction: An Emerging Tool for Acyclic Stereocontrol)
K. Mikami, M. Terada, M. Shimizu, T. Nakai
有機合成化学協会誌 (*J. Synth. Org. Chem., Jpn.*), **48**, 292-303 (1990).
- 2 "Chemzyme"の創製-不斉触媒的カルボニル-エン反応の開発をケーススタディーとして ("Chemzyme" for Carbonyl-Ene Reactions)
K. Mikami, M. Terada, T. Nakai
油化学 (*J. Jpn. Oil Chem. Soc.*), **39**, 837-845 (1990).
- 3 前周期遷移金属チタンの活用：高選択的チタン反応剤 (Efficient Use of Early Transition Metal, Titanium: Highly Selective Titanium Reagent)
K. Mikami, M. Terada, T. Nakai
有機合成化学協会誌 (*J. Synth. Org. Chem., Jpn.*), **49**, 566-574 (1991).
- 4 エン反応の "不斉触媒化" (Asymmetric Catalysis for Ene Reaction)
K. Mikami, M. Terada, S. Narisawa, T. Nakai
化学 (*Chemistry*), **46**, 138-139 (1991).
- 5 Asymmetric Catalysis for Carbonyl-Ene Reaction
K. Mikami, M. Terada, S. Narisawa, T. Nakai
Synlett, 255-265 (1992).
- 6 ランタニド錯体をルイス酸触媒とする不斉アルドール反応：糖類の立体選択的合成 (Asymmetric Aldol Reactions Catalyzed by Lanthanide Complexes as Lewis Acid: Stereoselective Synthesis of Monosaccharides)
K. Mikami, M. Terada, T. Nakai
講談社サイエンティフィック (Kodansha Scientific), 実験有機金属化学 (*A Practical Approach in Organometallic Chemistry*) (1992).
- 7 不斉触媒的グリオキシラート-エン反応：メチル 2-ヒドロキシ-4-ペンテノエートの不斉合成 (Asymmetric Catalysis of Glyoxylate-Ene Reactions: Asymmetric

Synthesis of 2-Hydroxy-4-pentenoate)

K. Mikami, M. Terada, T. Nakai

講談社サイエンティフィック (Kodansha Scientific), 実験有機金属化学 (*A Practical Approach in Organometallic Chemistry*) (1992).

- 8 Asymmetric Catalytic Glyoxylate-Ene Reaction: Methyl
(2*R*)-Hydroxy-4-Phenyl-4-Pentenoate
K. Mikami, M. Terada, S. Narisawa, T. Nakai
Org. Synth., **71**, 14-21 (1992).

- 9 キラルチタン錯体を不斉触媒とする不斉合成 (Chiral Titanium Complex as
Asymmetric Catalyst in Asymmetric Synthesis)
K. Mikami, M. Terada, T. Nakai
季刊化学総説 No.17 (*Kikan Kagaku Sousetu No. 17*), 83-98 (1992).

- 10 Asymmetric Catalysis of Glyoxylate-Ene Reaction and Related Reactions
K. Mikami, M. Terada, T. Nakai
Advances in Catalytic Processes, Vol. 1, M. P. Doyle ed., JAI Press, London, 123-149
(1995).

- 11 不斉重合触媒 (Asymmetric Catalysts for Polymerization)
K. Mikami, M. Terada, A. Osawa
高分子学会協会誌 (*J. Polymer, Jpn.*), **46**, 72-76 (1997).

- 12 キラルチタン錯体を触媒とする不斉合成 (Chiral Titanium Complexes in Asymmetric
Catalysis)
K. Mikami, M. Terada
科学と工業 (*Science and Industry, Jpn.*), 71, 249-258 (1997).

- 13 Chiral Titanium Reagents for Asymmetric Organic Synthesis
K. Mikami, M. Terada
Lewis Acid Reagents: A Practical Approach, H. Yamamoto ed., Oxford University Press,
Oxford, 93-136 (1998).

- 14 不斉活性化による触媒的不斉合成 (Catalytic Asymmetric Synthesis by Asymmetric
Activation)
K. Mikami, T. Korenaga, M. Terada
現代化学 (*Chemistry Today*), **329**, 14-21 (1998).

- 15 Asymmetric Activation of Racemic Catalysts
K. Mikami, T. Korenaga, S. Matsukawa, Y. Matsumoto, K. Ding, A. Ishii, T. Volk, M.
Terada
有機合成化学協会誌 (*J. Synth. Org. Chem., Jpn., English Edition*), **56**, 975-986 (1998).

- 16 Ene-Type Reactions

K. Mikami, M. Terada

Comprehensive Asymmetric Catalysis, E. N. Jacobsen, A. Pfaltz, H. Yamamoto eds., Springer, Heidelberg, **3**, 1143-1174 (1999).

- 17 不斉配位子を用いない不斉触媒—その設計法— (Design of Asymmetric Catalyst without Chiral Ligand)
M. Terada
触媒(*Catalysts & Catalysis*), **41** [5], 334-335 (1999).
- 18 Chiral Ti(IV) Lewis Acids
K. Mikami, M. Terada
Handbook on Lewis Acids-Application in Organic Synthesis, (Ed. H. Yamamoto), Wiley-VCH, Vol. 2, pp. 799-847 (2000).
- 19 Asymmetric Activation
K. Mikami, M. Terada, T. Korenaga, Y. Matsumoto, M. Ueki, R. Angelaud
Angew. Chem. Int. Ed., **39** [20], 3532-3556 (2000).
- 20 Enantiomer-Selective Activation of Racemic Catalysts
K. Mikami, M. Terada, T. Korenaga, Y. Matsumoto, S. Matsukawa
Acc. Chem. Res., **33** [6], 391-401 (2000).
- 21 「触媒の事典」 (分担) (小野嘉夫、御園生誠、諸岡良彦 編)
寺田眞浩
朝倉書店, 2000.
- 22 Engineering Asymmetric Catalysts through Asymmetric Activation and Super High-Throughput Screening
K. Mikami, T. Korenaga, S. Matsukawa, M. Terada, K.-L. Ding and J. Long
Chinese J. Chem., **19** [6], 545-557 (2001).
- 23 Racemic Catalysis through Asymmetric Activation
K. Mikami, T. Korenaga, Y. Matsumoto, M. Ueki, M. Terada, S. Matsukawa
Pure Appl. Chem., **73** [2], 255-259 (2001).
- 24 “Asymmetric” Catalysis by Lanthanide Complexes
K. Mikami, M. Terada, H. Matsuzawa
Angew. Chem. Int. Ed., **41** [19], 3554-3572 (2002).
- 25 酸化的 Mizoroki-Heck 型反応：最近の展開
寺田眞浩
Organometallic News, **39** [1], 21 (2003).
- 26 不斉金属錯体を触媒とする高エナンチオ選択的カルボニル－エン反応の開発
寺田眞浩

有機合成化学協会誌, **62** [3], 257 (2004).

- 27 超分子相互作用に基づく機能性 Brønsted 酸触媒の設計開発
寺田眞浩
長瀬科学技術振興財団 研究報告集, **15**, 51-57 (2004).
- 28 注目の論文：アミノ酸を使って酸素を有機化合物に組み込む—有機触媒を使った
立体選択的酸素官能基化反応,
寺田眞浩
化学(Chemistry), **60** [5], 65-66 (2005).
- 29 キラル Brønsted 酸触媒による不斉合成,
寺田眞浩
触媒, **48** [1], 38-43, (2006)