

## List of Publications

### Iwao Ojima

#### Book Edited

1. Iwao Ojima, "Catalytic Asymmetric Synthesis", VCH Publishers, New York, 1993.
2. G. I. Georg, T. Chen, I. Ojima, and D. M. Vyas (Eds.), "*Taxane Anticancer Agents: Basic Science and Current Status*", ACS Symp. Series 583; American Chemical Society, Washington, D. C., 1995.
3. I. Ojima, J. McCarthy, and J. T. Welch (Eds.), "*Biomedical Frontiers of Fluorine Chemistry*", ACS Symp. Series 639; The American Chemical Society, Washington, D. C., 1996.
4. Iwao Ojima, "Catalytic Asymmetric Synthesis, Second Edition", John Wiley & Sons, New York, 2000.
5. Iwao Ojima, Gregory D. Vite, Karh-Heinz Altmann (Eds.), "*Anticancer Agents: Frontiers in Cancer Chemotherapy*", ACS Symp. Series 796, American Chemical Society, Washington, D. C., 2001.
6. Iwao Ojima (Volume Editor), "*Volume 10, Applications to Organic Synthesis I*" in "*Comprehensive Organometallic Chemistry III*" Robert H. Crabtree, Michael P. Mingos (Eds. in-Chief), Elsevier, Oxford, 2006.
7. Iwao Ojima, "Fluorine in Medicinal Chemistry and Chemical Biology", Wiley-Blackwell, Chichester (2009).
8. Iwao Ojima, "Catalytic Asymmetric Synthesis, Third Edition", John Wiley & Sons, New York (2010).
9. Iwao Ojima, "Frontiers of Organofluorine Chemistry", World Scientific, Singapore (2020).
10. Takahiko Akiyama and Iwao Ojima, "Catalytic Asymmetric Synthesis, Fourth Edition", John Wiley & Sons, New York (2022): ISBN: 978-1-119-73639-4

#### Guest Editor for Special Journal Issues

1. Current Topics in Medicinal Chemistry, Volume 7, Number 5 (2007), "Drug-Resistant Tuberculosis – A Challenge in Chemotherapy".
2. Accounts of Chemical Research, Volume 41, Number 1 (2008), "Modern Molecular Approaches to Drug Design and Discovery".
3. Journal of Medicinal Chemistry, Volume 51, Number 9 (2008), Mini-Perspective, "Modern Natural Products Chemistry and Drug Discovery".
4. Molecules, Special Issue on "In-Silico Drug Design and In-Silico Screening" (2014).
5. Molecules, Special Issue on "New Generation of Microtubule Interacting Anticancer Agents" (2016).
6. Cancer Drug Resistance, Special Issue on "Recent advances in Tumor-Targeting Chemotherapy Drugs" (2021).

#### Articles

1. "Reactions of Diarylphosphines, Their Oxides and Sulfides with Isothiocyanates and Thiocyanic Acid", I. Ojima, K. Akiba, and N. Inamoto, *Bull. Chem. Soc., Japan*, **42**, 2975 (1969).
2. "A Novel Series of Transition-metal Chelates of Diphenylphosphino thioylthiourea Anion", I. Ojima, T. Iwamoto, T. Onishi, N. Inamoto, and K. Tamaru, *Chem. Commun.*, 1501 (1969).
3. "A New Route to Metal Chelates of Dimethyldithiocarbamate and Their Far Infrared Spectra", I. Ojima, T. Onishi, T. Iwamoto, N. Inamoto, and K. Tamaru, *Inorg. Nucl. Chem. Lett.*, **6**, 65 (1970).
4. "1,2-Cycloaddition of Phosphinothioyl and Sulfonyl Isothiocyanates with Carbodiimides", I. Ojima and N. Inamoto, *Chem. Commun.*, 1629 (1970).
5. "Syntheses of a New Series of Transition Metal Chelates of Diphenyl phosphinothioylthiourea Anion", I. Ojima, T. Onishi, T. Iwamoto, N. Inamoto, and K. Tamaru, *Bull. Chem. Soc. Japan*, **44**, 2150 (1971).
6. "Intramolecular Reactions of  $\alpha$ - and  $\beta$ -Allylthioalkylcarbenes", K. Kondo and I. Ojima, *Chem. Commun.*, 62 (1972).
7. "Intramolecular Cycloadditions of  $\alpha$ - and  $\beta$ -Allylthioalkyl Diazoalkanes", K. Kondo and I. Ojima, *Chem. Commun.*, 63 (1972).
8. "Intramolecular Formation of Ylides from Carbenes Bearing Sulfide Linkages at the  $\gamma$ -Position", K. Kondo and I. Ojima, *Chem. Lett.*, 119 (1972).
9. "Reactions of Carbenes Bearing Sulfide Linkages at the  $\gamma$ -Position", K. Kondo and I. Ojima, *Chem. Commun.*, 860 (1972).
10. "Cycloadditions of Diazoalkanes to Vinyl and Allyl Sulfides Systems", K. Kondo and I. Ojima, *Chem. Lett.*, 771 (1972).
11. "Rhodium Complex Catalyzed Hydrosilylation of Carbonyl Compounds", I. Ojima, M. Nihonyanagi, and Y. Nagai, *Chem. Commun.*, 938 (1972).
12. "Reduction of Carbonyl Compounds with Various Hydrosilane-Rhodium(I) Complex Combinations", I. Ojima, T. Kogure, M. Nihonyanagi, and Y. Nagai, *Bull. Chem. Soc. Japan*, **45**, 3506 (1972).

13. "Stereoselective Reduction of Ketones with Hydrosilane-Rhodium(I) Complex Combinations", I. Ojima, M. Nihonyanagi, and Y. Nagai, *Bull. Chem. Soc. Japan*, **45**, 3722 (1972).
14. "Selective Reduction of  $\alpha,\beta$ -Unsaturated Terpene Carbonyl Compounds Using Hydrosilane-Rhodium(I) Complex Combinations", I. Ojima, T. Kogure, and Y. Nagai, *Tetrahedron Lett.*, 5035 (1972).
15. "Acid Catalyzed Ring Opening Reactions of Episulfoxides", K. Kondo, A. Negishi, and I. Ojima, *J. Amer. Chem. Soc.*, **94**, 5786 (1972).
16. "Intramolecular Participation of Sulfide Linkage in the Reactivity of Carbenes and Diazoalkanes. I. Alkylcarbenes and Diazoalkanes Bearing Alkylthio, Arylthio and Allylthio Groups on  $\alpha$ -Carbon", I. Ojima and K. Kondo, *Bull. Chem. Soc. Japan*, **46**, 1539 (1973).
17. "Chemical Evidence of the Existence of  $p\pi - d\pi$  Interaction between the Unsaturated Bond and Sulfur Atom in Allyl and Vinyl Sulfide Systems", I. Ojima and K. Kondo, *Bull. Chem. Soc. Japan*, **46**, 2571 (1973).
18. "Reactions of Diphenylphosphinothiyl Isothiocyanate and Related Compounds with Some Nucleophiles and Carbodiimides", I. Ojima, K. Akiba, and N. Inamoto, *Bull. Chem. Soc. Japan*, **46**, 2559 (1973).
19. "A Novel Route to Silylthioethers", I. Ojima, M. Nihonyanagi, and Y. Nagai, *J. Organometal. Chem.*, **50**, C26 (1973).
20. "Asymmetric Reduction of Ketones via Hydrosilylation Catalyzed by a Rhodium(I) Complex with Chiral Phosphine Ligands", I. Ojima, T. Kogure, and Y. Nagai, *Chem. Lett.*, 541 (1973).
21. "Hydrosilane-Rhodium(I) Complex Combinations as Silylating Agents of Alcohols", I. Ojima, T. Kogure, M. Nihonyanagi, H. Kono, S. Inaba, and Y. Nagai, *Chem. Lett.*, 501 (1973).
22. "A Convenient Route to Aminosilanes Using Hydrosilane-Rhodium(I) Complex Combinations", H. Kono, I. Ojima, and Y. Nagai, *Org. Prep. Proc. Internat.*, **5**, 135 (1973).
23. "Action of Tris(triphenylphosphine)chlororhodium on Polyhydrosilanes", I. Ojima, S. Inaba, and Y. Nagai, *J. Organometal. Chem.*, **55**, C7 (1973).
24. "Reactions of Polyhydrosilanes with Alcohols Catalyzed by Tris(triphenylphosphine)chloro-rhodium", I. Ojima, S. Inaba, T. Kogure, M. Matsumoto, H. Matsumoto, H. Watanabe, and Y. Nagai, *J. Organometal. Chem.*, **55**, C4 (1973).
25. "A Novel Method for the Reduction of Schiff Bases Using Catalytic Hydrosilylation", I. Ojima, T. Kogure, and Y. Nagai, *Tetrahedron Lett.*, 2475 (1973).
26. "A Novel Route to Formamides and Their Derivatives. Reduction of Isocyanates via Hydrosilylation Catalyzed by Palladium", I. Ojima, S. Inaba, and Y. Nagai, *Tetrahedron Lett.*, 4363 (1973).
27. "Reactions of Triethylsilyl Thiophenoxide with Ketones Having Electron withdrawing Group on  $\alpha$ -Carbon", I. Ojima and Y. Nagai, *J. Organometal. Chem.*, **57**, C42 (1973).
28. "A Novel Route to 2-Carbamoylcycloalkanones by the Addition Reaction of Silyl Enol Ethers to Isocyanates", I. Ojima, S. Inaba, and Y. Nagai, *Tetrahedron Lett.*, 4271 (1973).
29. "The Stereochemistry of the Addition of Hydrosilanes to Alkyl Acetylenes Catalyzed by Tris(triphenylphosphine)-chlororhodium", I. Ojima, M. Kumagai, and Y. Nagai, *J. Organometal. Chem.*, **66**, C14 (1974).
30. "Asymmetric Reduction of Ketones via Hydrosilylation Catalyzed by a Rhodium(I) Complex with Chiral Phosphine Ligands II. On the Mechanism of the Induction of Asymmetry", I. Ojima and Y. Nagai, *Chem. Lett.*, 223 (1974).
31. "Syntheses of *N*-Silylformamidines by the Hydrosilylation of Carbodiimides", I. Ojima, S. Inaba, and Y. Nagai, *J. Organometal. Chem.*, **72**, C11 (1974).
32. "Asymmetric Reduction of  $\alpha$ -Keto Esters via Hydrosilylation Catalyzed by a Rhodium(I) Complex with Chiral Phosphine Ligands", I. Ojima, T. Kogure, and Y. Nagai, *Tetrahedron Lett.*, 1889 (1974).
33. "A Facile Synthesis of *N*-(*p*-Toluenesulfonyl)-2-oxoalkanecarbonamides by the Reaction of Silyl Enol Ethers with *p*-Toluenesulfonyl Isocyanate", I. Ojima, S. Inaba, and Y. Nagai, *Chem. Lett.*, 1069 (1974).
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36. "The Intramolecular Participation of Sulfide Linkage on the Reactivity of Carbenes and Diazoalkanes. II. Alkylcarbenes and Diazoalkanes Bearing Arylthio and Allylthio Groups on  $\beta$ -Carbon", K. Kondo and I. Ojima, *Bull. Chem. Soc. Jpn*, **48**, 1490 (1975).
37. "Selective and Asymmetric Reductions of Carbonyl Compounds Using Hydrosilylation Catalyzed by Rhodium(I) Complexes", I. Ojima, In "*Organotransition Metal Chemistry*"; Y. Ishii and M. Tsutsui (Eds.); Plenum Press, New York, 1975, pp 255-264.
38. "The Formation of Silylrhodium Complexes by Oxidative Addition of Hydrosilanes to Hydridotetrakis(triphenylphosphine)rhodium(I). A Homogeneous Catalyst for Hydrosilylation", H. Kono, N. Wakao, I. Ojima, and Y. Nagai, *Chem. Lett.*, 189 (1975).

39. "Double Asymmetric Reduction" of (-)Menthyl Benzoylformate Using Catalytic Hydrosilylation", I. Ojima and Y. Nagai, *Chem. Lett.*, 191 (1975).
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41. "Selective Asymmetric Reduction of  $\alpha,\beta$ -Unsaturated Ketones via Hydrosilylation Catalyzed by Rhodium(I) Complexes with Chiral Phosphine Ligands", I. Ojima, T. Kogure, and Y. Nagai, *Chem. Lett.*, 985 (1975).
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44. "Reaction of Trimethylsilyl Cyanide with Carbodiimides", I. Ojima, S. Inaba, and Y. Nagai, *J. Organometal. Chem.*, **99**, C5 (1975).
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51. "Reduction of Isocyanates and Carbodiimides via Hydrosilylation", I. Ojima and S. Inaba, *J. Organometal. Chem.*, **140**, 97 (1977).
52. "3-TMS-cyclopentene-1. A New Reagent for the Synthesis of Cyclopentene Derivatives", I. Ojima, M. Kumagai, and Y. Miyazawa, *Tetrahedron Lett.*, 1385 (1977).
53. "Asymmetric Cross Aldol Synthesis. Asymmetric Addition of Silyl Enol Ether and Ketene Silyl Acetal to  $\alpha$ -Keto Esters", I. Ojima, K. Yoshida, and S. Inaba, *Chem. Lett.*, 429 (1977).
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55. "New and effective Route to  $\beta$ -Lactams. The Reaction of Ketene Silyl Acetals with Schiff Bases Promoted by Titanium Tetrachloride", I. Ojima, S. Inaba, and K. Yoshida, *Tetrahedron Lett.*, 3643 (1977).
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68. "<sup>31</sup>P NMR Studies on the Mechanism of Asymmetric Hydrogenation Catalyzed by Rhodium(I) Complexes with Chiral Pyrrolidinodiphosphine Ligand. Evidence for Extremely Regioselective Complexation of Prochiral Substrates", I. Ojima and T. Kogure, *Chem. Lett.*, 641 (1979).
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70. "Asymmetric Synthesis of  $\beta$ -Lactams. I. The Reaction of Dimethylketene Silyl Acetal with (*S*)-Alkylidene(1-arylethyl)-amines Promoted by Titanium Tetrachloride", I. Ojima and S. Inaba, *Tetrahedron Lett.*, **21**, 2077 (1980).
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85. "Reduction of Carbonyl Compounds via Hydrosilylation. IV. Highly Regioselective Reductions of  $\alpha,\beta$ -Unsaturated Carbonyl Compounds", I. Ojima and T. Kogure, *Organometallics*, **1**, 1390 (1982).
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100. "Novel Approaches to the Chiral Synthesis of Oligopeptides (II). Synthesis of Enkephalin Analogs Using  $\beta$ -Lactam as Synthetic Building Block", M. Yamashita, R. Abe, N. Hatanaka and I. Ojima in "*Peptide Chemistry 1982*"; S. Sakakibara (Ed.); Protein Research Foundation, 1983, pp 85-90.
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