

## 研究業績リスト

若宮淳志

### 原著論文（査読有）

1. 1,4-Dithiin Annelated with Bicyclo[2.2.2]octene Units: Experimental and Theoretical Evidence for the Aromaticity of 1,4-Dithiin Dication  
T. Nishinaga, A. Wakamiya, K. Komatsu  
*Chem. Commun.* **1999**, 777-778.
2. The First Isolation of the Hexafluoroantimonate Salt of a 1,4-Dithiin Radical Cation Stabilized by Bicyclo[2.2.2]octene Annelation  
T. Nishinaga, A. Wakamiya, K. Komatsu  
*Tetrahedron Lett.* **1999**, 40, 4375-4378.
3. The Stable Radical Cation of Thiophene Annelated with Bicyclo[2.2.2]octene and Its Reaction with Triplet Oxygen to Give a Protonated Cation of 2-Butene-1,4-dione Derivative  
A. Wakamiya, T. Nishinaga, K. Komatsu  
*Chem. Commun.* **2002**, 1192-1193.
4. 1,2-Dithiin Annelated with Bicyclo[2.2.2]octene Frameworks. One-Electron and Two-Electron Oxidations and Formation of a Novel 2,3,5,6-Tetrathiabicyclo[2.2.2]oct-7-ene Radical Cation with Remarkable Stability Owing to a Strong Transannular Interaction  
A. Wakamiya, T. Nishinaga, K. Komatsu  
*J. Am. Chem. Soc.* **2002**, 124, 15038-15050.
5. Synthesis, Structure, and Dynamic Behavior of Cyclopentadienyl-Lithium, -Sodium, and -Potassium Annelated with Bicyclo[2.2.2]octene Units: A Systematic Study on Site Exchange of Alkali Metals on a Cyclopentadienyl Ring in Tetrahydrofuran  
T. Nishinaga, D. Yamazaki, H. Stahr, A. Wakamiya, K. Komatsu  
*J. Am. Chem. Soc.* **2003**, 125, 7324-7335.
6. Synthesis and Properties of Novel Oligothiophenes Surrounded by Bicyclo[2.2.2]octene Frameworks  
A. Wakamiya, D. Yamazaki, T. Nishinaga, T. Kitagawa, K. Komatsu  
*J. Org. Chem.* **2003**, 68, 8305-8314.
7. Crystal Structures and Spectroscopic Characterization of Radical Cations and Dications of Oligothiophenes Stabilized by Annelation with Bicyclo[2.2.2]octane Units: Sterically Segregated Cationic Oligothiophenes  
T. Nishinaga, A. Wakamiya, D. Yamazaki, K. Komatsu  
*J. Am. Chem. Soc.* **2004**, 126, 3163-3174.
8. General Silaindene Synthesis Based on Intramolecular Reductive Cyclization: Synthesis of New Fluorescent Silicon-Containing  $\pi$ -Electron Systems  
C. Xu, A. Wakamiya, S. Yamaguchi  
*Org. Lett.* **2004**, 6, 3707-3710.
9. Ladder Bis-Silicon-Bridged Stilbenes as a New Building Unit for Fluorescent  $\pi$ -Conjugated Polymers  
C. Xu, H. Yamada, A. Wakamiya, S. Yamaguchi, K. Tamao  
*Macromolecules* **2004**, 37, 8978-8983.

10. Ladder Oligo(*p*-phenylenevinylene)s with Silicon and Carbon Bridges  
C. Xu, [A. Wakamiya](#), S. Yamaguchi  
*J. Am. Chem. Soc.* **2005**, *127*, 1638-1639.
11. Toward  $\pi$ -Conjugated Molecule Bundles; Synthesis of a Series of *B,B',B''*-Trianthryl-*N,N',N''*-triarylborazines and the Bundle Effects on their Properties  
[A. Wakamiya](#), T. Ide, S. Yamaguchi  
*J. Am. Chem. Soc.* **2005**, *127*, 14859-14866.
12. Synthesis, Structures, and Photophysical Properties of Silicon and Carbon-Bridged Ladder Oligo(*p*-phenylenevinylene)s  
S. Yamaguchi, C. Xu, H. Yamada, [A. Wakamiya](#)  
*J. Organomet. Chem.* (Special Issue for 40th Anniversary) **2005**, *690*, 5365-5377.
13. General Synthesis of Thiophene and Selenophene-Based Heteroacenes  
T. Okamoto, K. Kudo, [A. Wakamiya](#), S. Yamaguchi  
*Org. Lett.* **2005**, *7*, 5301-5304.
14. Intramolecular B-N Coordination as a New Scaffold for Design of Electron-Transporting Materials: Synthesis and Properties of Boryl-Substituted Thienylthiazoles  
[A. Wakamiya](#), T. Taniguchi, S. Yamaguchi  
*Angew. Chem., Int. Ed.* **2006**, *45*, 3170-3173.
15. High Fidelity Self-Sorting Assembling of meso-Cinchoneronimide Appended *meso-meso* Linked Zn(II) Diporphyrins  
T. Kamada, N. Aratani, T. Ikeda, N. Shibata, Y. Higuchi, [A. Wakamiya](#), S. Yamaguchi, K. S. Kim, Z. S. Yoon, D. Kim, A. Osuka  
*J. Am. Chem. Soc.* **2006**, *128*, 7670-7678.
16. Highly Emissive Organic Solids Containing 2,5-Diboryl-1,4-phenylene Unit  
C. -H. Zhao, [A. Wakamiya](#), Y. Inukai, S. Yamaguchi  
*J. Am. Chem. Soc.* **2006**, *128*, 15934-15935.
17. General Synthesis of Extended Fused Oligothiophenes Consisting of Even Number of Thiophene Rings  
T. Okamoto, K. Kudoh, [A. Wakamiya](#), S. Yamaguchi  
*Chem. Eur. J.* **2007**, *13*, 548-556.
18. Crystallographic and Chiroptical Studies on Tetraarylferrocenes for Use as Chiral Rotary Modules for Molecular Machines  
T. Muraoka, K. Kinbara, [A. Wakamiya](#), S. Yamaguchi, T. Aida  
*Chem. Eur. J.* **2007**, *13*, 1724-1730.
19. Ladder Distyrylbenzenes with Silicon and Chalcogen Bridges: Synthesis, Structures, and Properties  
K. Mouri, [A. Wakamiya](#), H. Yamada, T. Kajiwara, S. Yamaguchi  
*Org. Lett.* **2007**, *9*, 93-96.
20. Pentaindenocorannulene and Tetraindenocorannulene: New Aromatic  $\pi$  Systems with Curvatures Surpassing That of C<sub>60</sub>  
E. A. Jackson, B. D. Steinberg, M. Bancu, [A. Wakamiya](#), L. T. Scott  
*J. Am. Chem. Soc.* **2007**, *129*, 484-485 (2007). (Highlighted in *Nature*, **2007**, *445*, 128.)

21. Single Crystal Field Effect Transistors of Benzo-Annulated Fused Oligothiophenes and Oligoselenophenes  
K. Yamada, T. Okamoto, K. Kudoh, A. Wakamiya, S. Yamaguchi, J. Takeya  
*Appl. Phys. Lett.* **2007**, *90*, 072102.
22. 3-Boryl-2,2'-Bithiophene as a Versatile Core Skeleton for Full-Color Highly Emissive Organic Solids  
A. Wakamiya, K. Mori, S. Yamaguchi  
*Angew. Chem., Int. Ed.* **2007**, *46*, 4273-4276.  
(Selected as a VIP and a Cover Picture & Highlighted in *Angew. Chem.*)
23. Relative Stereochemistries of the Ether Rings and Sugar Moieties in Durinskiol A  
M. Kita, M. C. Roy, E. R. O. Siwu, I. Noma, T. Takiguchi, K. Yamada, T. Koyama, T. Iwashita, A. Wakamiya, D. Uemura  
*Tetrahedron Lett.* **2007**, *48*, 3429-3432. (Highlighted as a Cover Picture)
24. Highly Emissive Poly(aryleneethynylene)s Containing 2,5-Diboryl-1,4-phenylene as a Building Unit  
C.-H. Zhao, A. Wakamiya, S. Yamaguchi  
*Macromolecules* **2007**, *40*, 3898-3900.
25. Kinetically Stabilized Dibenzoborole as an Electron-Accepting Building Unit  
A. Wakamiya, K. Mishima, K. Ekawa, S. Yamaguchi  
*Chem. Commun.* **2008**, 579-581.
26. Synthesis and Structural Characterization of Pentaarylboroles and Their Dianions  
C.-W. So, D. Watanabe, A. Wakamiya, S. Yamaguchi  
*Organometallics* **2008**, *27*, 3496-3501.
27. Aryl-Aryl Bond Formation by Flash Vacuum Pyrolysis of Benzannulated Thiopyrans  
A. W. Amick, A. Wakamiya, L. T. Scott  
*J. Org. Chem.* **2008**, *73*, 5119.
28. Electronic Modulation of Fused Oligothiophenes by Chemical Oxidation  
Y. Suzuki, T. Okamoto, A. Wakamiya, S. Yamaguchi  
*Org. Lett.* **2008**, *10*, 3393-3396.
29. Highly Electron-Donating 3,3'-Diaryl-1,1'-bi(isobenzofuran)s Synthesized by Photochemical Exocyclic [2+2+2] Cycloaddition  
H. Zhang, A. Wakamiya, S. Yamaguchi  
*Org. Lett.* **2008**, *10*, 3591-3594.
30. Red-Emissive Polyphenylated BODIPY Derivatives: Effect of Peripheral Phenyl Groups on the Photophysical and Electrochemical Properties  
A. Wakamiya, N. Sugita, S. Yamaguchi  
*Chem. Lett.* **2008**, *37*, 1094-1095.
31. Synthesis and Electronic Spectra of Disilatriptycene Oligomers: Evidence for Electronic Delocalization along the One-Dimensional Arrangement of Bridge-Head Disilanes  
S. Sase, Y.-S. Cho, A. Kawachi, A. Wakamiya, S. Yamaguchi, H. Tsuji, K. Tamao  
*Organometallics* **2008**, *27*, 5441-5445.

32. Coordination-Induced Intramolecular Double Cyclization: Synthesis of Boron-Bridged Dipyridylvinylenes and Dithiazolylvinylenes  
Q. Zhao, H. Zhang, A. Wakamiya, S. Yamaguchi  
*Synthesis* **2009**, 127-132 (40th special issue).
33. 5-Aryl-3,3,4,4-tetramethyl-3,4-dihydro-3H-pyrrol-2-imines  
S. Janich, R. Froehlich, A. Wilken, J. von Zamory, A. Wakamiya, S. Yamaguchi, E.-U. Wuerthwein  
*Eur. J. Org. Chem.* **2009**, 2077-2087.
34. Structural Modification of Silicon-Bridged Ladder Stilbene Oligomers and Distyrylbenzenes  
H. Yamada, C. Xu, A. Fukazawa, A. Wakamiya, S. Yamaguchi  
*Macro. Chem. Phys.* **2009**, 210, 904-916.
35. Tetraaryl-tetradecahydroporphyrans: Novel Porphyrin Derivatives Featuring a Cyclic Benzene Ring Tetramer  
S. Janich, R. Froehlich, A. Wakamiya, S. Yamaguchi, E.-U. Wuerthwein  
*Chem. Eur. J.* **2009**, 15, 10457-10463.
36. Intramolecular Reductive Double Cyclization of *o,o'*-Bis(arylcarbonyl)diphenylacetylenes: Synthesis of Ladder  $\pi$ -Conjugated Skeletons  
H. Zhang, T. Karasawa, H. Yamada, A. Wakamiya, S. Yamaguchi  
*Org. Lett.* **1999**, 11, 3076-3079.
37. Highly Emissive Diborylphenylene-Containing Bis(phenylethynyl)benzenes: Structure-Photophysical Property Correlations and Fluoride Ion Sensing  
C.-H. Zhao, E. Sakuda, A. Wakamiya, S. Yamaguchi  
*Chem. Eur. J.* **2009**, 15, 10603-10612.
38. Aromatic  $\pi$ -Systems More Curved Than C<sub>60</sub>. The Complete Family of All Indenocorannulenes Synthesized by Iterative Microwave-Assisted Intramolecular Arylations  
B. D. Steinberg, E. A. Jackson, A. S. Filatov, A. Wakamiya, M. A. Petrukhina, L. T. Scott  
*J. Am. Chem. Soc.* **2009**, 131, 10537-10545.
39. A B-B Bond-Containing Polycyclic  $\pi$ -Electron System: Dithieno-1,2-dihydro-1,2-diborin and Its Dianion  
A. Wakamiya, K. Mori, T. Araki, S. Yamaguchi  
*J. Am. Chem. Soc.* **2009**, 131, 10850-10851. (Highlighted in SYNFACTS)
40. Regioselective Unsymmetrical Tetraallylation of C<sub>60</sub> through Palladium Catalysis  
M. Nambo, A. Wakamiya, S. Yamaguchi, K. Itami  
*J. Am. Chem. Soc.* **2009**, 131, 15112-15113. (Highlighted in SYNFACTS)
41. Electronic Tuning of Thiazolyl-Capped  $\pi$ -Conjugated Compounds via a Coordination/Cyclization Protocol with B(C<sub>6</sub>F<sub>5</sub>)<sub>3</sub>.  
A. Job, A. Wakamiya, G. Kehr, G. Erker, S. Yamaguchi  
*Org. Lett.* **2010**, 12, 5470-5473.
42. Selective Introduction of Organic Groups to C<sub>60</sub> and C<sub>70</sub> Using Organoboron Compounds and Rhodium Catalyst: A New Synthetic Approach to Organo(hydro)fullerenes  
M. Nambo, Y. Segawa, A. Wakamiya, K. Itami  
*Chem. Asian J.* **2011**, 6, 590 – 598.

43. Design, Synthesis, and Characterization of Functionalized Silepins: High Quantum Yield Blue Emitters.  
L. G. Mercier, S. Furukawa, W. E. Piers, A. Wakamiya, S. Yamaguchi, M. Parvez, R. W. Harrington, W. Clegg  
*Organometallics* **2011**, *30*, 1719-1729.
44. Halichonines A, B, and C, novel sesquiterpene alkaloids from the marine sponge *Halichondria okadai* Kadota  
O. Ohno, T. Chiba, S. Todoroki, H. Yoshimura, N. Maru, K. Maekawa, H. Imagawa, K. Yamada, A. Wakamiya, K. Suenaga, D. Uemura  
*Chem. Commun.* **2011**, *47*, 12453-12455.
45. Synthesis of 1-Phospha-2-boraacenaphthenes: Reductive 1,2-Aryl Migration of 1-Diarylboryl-8-dichlorophosphinonaphthalenes  
A. Tsurusaki, T. Sasamori, A. Wakamiya, S. Yamaguchi, K. Nagura, S. Irle, N. Tokitoh  
*Angew. Chem., Int. Ed.* **2011**, *50*, 10940-10943.
46. Synthesis and Photophysical Properties of Aryl Substituted 2-Borylbenzaldimines and their Extended p-Conjugated Congeners  
B. Neue, R. Fröhlich, B. Wibbeling, A. Fukazawa, A. Wakamiya, S. Yamaguchi, E.-U. Würthwein  
*J. Org. Chem.* **2012**, *77*, 2176-2184.
47. Planarized Triarylboranes: Stabilization by Structural Constraint and Their Plane-to-Bowl Conversion  
Z. Zhou, A. Wakamiya, T. Kushida, S. Yamaguchi  
*J. Am. Chem. Soc.* **2012**, *134*, 4529-4532.  
(Highlighted in Mynavi News、日経産業新聞、日刊工業新聞、化学工業日報、中日新聞、*Angew. Chem.*)
48. Elucidation of pi-Conjugation Modes in Diarene-Fused 1,2-Dihydro-1,2-diborin Dianions  
T. Araki, A. Wakamiya, K. Mori, S. Yamaguchi  
*Chem. Asian J.* **2012**, *7*, 1594-1603.  
(Selected as a VIP & Inside Cover、Highlighted in ワイリーサイエンスカフェ)
49. Synthesis of a Library of Fluorescent 2-Aryl-3-trifluoromethylnaphthofurans from Naphthols by Using a Sequential Pummerer-Annulation/Cross-Coupling Strategy and their Photophysical Properties  
Y. Ookubo, A. Wakamiya, H. Yorimitsu, A. Osuka,  
*Chem.-Eur. J.* **2012**, *18*, 12690-12697.
50. Planarized B-phenylborataanthracene anions: structural and electronic impacts of coplanar constraint  
T. Kushida, Z. Zhou, A. Wakamiya, S. Yamaguchi,  
*Chem. Commun.* **2012**, *48*, 10715-10717. (Selected as a Cover Picture)
51. Palladium-catalyzed tetraallylation of C60 with allyl chloride and allylstannane: mechanism, regioselectivity, and enantioselectivity  
M. Nambo, A. Wakamiya, K. Itami  
*Chem. Sci.* **2012**, *3*, 3474-3481.

52. Site-selective sequential coupling reactions controlled by “Electrochemical Reaction Site Switching”: a straightforward approach to 1,4-bis(diaryl)buta-1,3-diyne  
K. Mitsudo, N. Kamimoto, H. Murakami, H. Mandai, [A. Wakamiya](#), Y. Murata and S Suga  
*Org. Biomol. Chem.* **2012**, *10*, 9562–9569.
53. Benzene-fused BODIPY and fully-fused BODIPY dimer: impacts of the ring-fusing at the *b* bond in the BODIPY skeleton  
[A. Wakamiya](#), T. Murakami, S. Yamaguchi  
*Chem. Sci.* **2013**, *4*, 1002–1007.
54. Synthesis of Hexa(furan-2-yl)benzenes and Their pi-Extended Derivatives  
K. Mitsudo, J. Harada, Y. Tanaka, H. Mandai, C. Nishioka, H. Tanaka, [A. Wakamiya](#), Y. Murata, S. Suga  
*J. Org. Chem.* **2013**, *78*, 2763–2768.
55. X-ray observation of a helium atom and placing a nitrogen atom inside He@C60 and He@C70  
Y. Morinaka, S. Sato, [A. Wakamiya](#), H. Nikawa, N. Mizorogi, F. Tanabe, M. Murata, K. Komatsu, K. Furukawa, T. Kato, S. Nagase, T. Akasaka, Y. Murata  
*Nature. Commun.* **2013**, *4*, 1554/1-1554/5. (京都新聞)
56. Synthesis and Photovoltaic Properties of Acceptor Materials Based on the Dimerization of Fullerene C<sub>60</sub> for Efficient Polymer Solar Cells  
Y. Morinaka, M. Nobori, M. Murata, [A. Wakamiya](#), T. Sagawa, S. Yoshikawa, Y. Murata  
*Chem. Commun.* **2013**, *49*, 3670-3672.
57. Expansion of Orifices of Open C60 Derivatives and Formation of an Open C59S Derivative by Reaction with Sulfur  
T. Futagoishi, M. Murata, [A. Wakamiya](#), T. Sasamori, Y. Murata  
*Org. Lett.* **2013**, *15*, 2750-2753.
58. Synthesis and X-ray Structure of Endohedral Fullerene C60 Dimer Encapsulating a Water Molecule in Each C60 Cage,  
R. Zhang, M. Murata, [A. Wakamiya](#), Y. Murata  
*Chem. Lett.* **2013**, *42*, 879-881.
59. Impacts of Dibenzo- and Dithieno-Fused Structures at the *b*, *g* Bonds in the BODIPY Skeleton,  
H. Shimogawa, H. Mori, [A. Wakamiya](#), Y. Murata  
*Chem. Lett.* **2013**, *42*, 986–988.
60. Modification and Unexpected Reactivity of 2-Borylbenzaldimines: Acylated and Silylated Derivatives as Well as Dimeric Compounds  
B. Neue, [A. Wakamiya](#), R. Fröhlich, B. Wibbeling, S. Yamaguchi, E.-U. Würthwein,  
*J. Org. Chem.* **2013**, *78*, 11747-11755.
61. Near-band edge Optical Responed of Solution-processed Organic-inorganic Hybrid Perovskite CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> on Mesoporous TiO<sub>2</sub> Electrodes  
Y. Yamada, T. Nakamura, M. Endo, [A. Wakamiya](#), Y. Kanemitsu,  
*Applied Physics Express*, **2014**, *7*, 032302. (2014年5月 Most read paper)

62. Reproducible Fabrication of Efficient Perovskite-based Solar Cells: X-ray Crystallographic Studies on the Formation of CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> Layers  
A. Wakamiya, M. Endo, T. Sasamori, N. Tokitoh, Y. Ogomi, S. Hayase, Y. Murata,  
*Chem. Lett.* **2014**, *43*, 711–713.
63. Constraint-induced structural deformation of planarized triphenylboranes in the excited state  
T. Kushida, C. Camacho, A. Shuto, S. Irle, M. Muramatsu, T. Katayama, S. Ito, Y. Nagasawa, H. Miyasaka, E. Sakuda, N. Kitamura, Z. Zhou, A. Wakamiya, S. Yamaguchi,  
*Chem. Sci.*, **2014**, *5*, 1296-1304. (Selected as a Cover Picture)
64. On-Top  $\pi$ -Stacking of Quasipolar Molecules in Hole-Transporting Materials: Inducing Anisotropic Carrier Mobility in Amorphous Films  
A. Wakamiya, H. Nishimura, T. Fukushima, F. Suzuki, A. Saeki, S. Seki, I. Osaka, T. Sasamori, M. Murata, Y. Murata, H. Kaji  
*Angew. Chem. Int. Ed.* **2014**, *53*, 5800-5804.  
(Mynabi News、日刊工業新聞、ワイリーサイエンスカフェ、京大ホームページ)
65. A Crystalline Porous Coordination Polymer Decorated with Nitroxyl Radicals Catalyzes Aerobic Oxidation of Alcohols  
L. Li, R. Matsuda, I. Tanaka, H. Sato, P. Kanoo, H. J. Jeon, M. L. Foo, A. Wakamiya, Y. Murata, S. Kitagawa  
*J. Am. Chem. Soc.* **2014**, *136*, 7543-7546.
66. Synthesis of Open-Cage Ketolactam Derivatives of Fullerene C<sub>60</sub> Encapsulating a Hydrogen Molecule  
Y. Hashikawa, M. Murata, A. Wakamiya, Y. Murata,  
*Org. Lett.* **2014**, *16*, 2970-2973.
67. Synthesis and Structure of an Open-cage Thiafullerene C<sub>69</sub>S: Reactivity Differences of an Open-cage C<sub>70</sub> Tetraketone Relative to Its C<sub>60</sub> Analogue  
R. Zhang, T. Futagoishi, M. Murata, A. Wakamiya, Y. Murata,  
*J. Am. Chem. Soc.* **2014**, *136*, 8193-8196.
68. Thiazole-Fused Benzothiaziazole as a Key Skeleton for T-Shaped Electron Accepting Building Blocks  
M. Satou, K. Uchinaga, A. Wakamiya, Y. Murata,  
*Chem. Lett.* **2014**, *43*, 1386-1388. (日刊工業新聞)
69. A Designed Fluorescent Anthracene Derivative: Theory, Calculation, Synthesis, and Characterization  
M. Uejima, T. Sato, M. Detani, A. Wakamiya, F. Suzuki, H. Suzuki, T. Fukushima, K. Tanaka, Y. Murata, C. Adachi, H. Kaji,  
*Chem. Phys. Lett.* **2014**, *602*, 80-83.
70. Photocarrier Recombination Dynamics in Perovskite CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> for Solar Cell Applications,  
Y. Yamada, T. Nakamura, M. Endo, A. Wakamiya, Y. Kanemitsu,  
*J. Am. Chem. Soc.* **2014**, *136*, 11610-11613.  
(Mynabi News、日刊工業新聞、京大ホームページ)

71. Elucidation of the Structure-Property Relationship of p-Type Organic Semiconductors through Rapid Library Construction via a One-pot, Suzuki-Miyaura Coupling Reaction, S. Fuse, K. Matsumura, A. Wakamiya, M. Hisashi, H. Tanaka, S. Yoshikawa, T. Takahashi, *ACS Combinatorial Science*, **2014**, *16*, 494-499.
72. Dibenzo[*a,f*]perylene Bisimide: Effects of Introducing Two Fused Rings  
Chaolumen, H. Enno, M. Murata, A. Wakamiya, Y. Murata, *Asian J. Chem.* **2014**, *9*, 3136-3140.
73. Inhomogeneous Deactivation with UV Excitation in Submicron Grains of Lead Iodide Perovskite-based Solar Cell as Revealed by Femtosecond Transient Absorption Microscopy  
T. Katayama, A. Jinno, E. Takeuchi, S. Ito, M. Endo, A. Wakamiya, Y. Murata, Y. Ogomi, S. Hayase, H. Miyasaka, *Chem. Lett.* **2014**, *43*, 1656-1658.
74. Excimer formation in organic emitter films associated with a molecular orientation promoted by steric hindrance  
J. Lee, B. Kim, J. E. Kwon, J. Kim, D. Yokoyama, K. Suzuki, H. Nishimura, A. Wakamiya, S. Y. Park, J. Park, *Chem. Commun.* **2014**, *50*, 14145-14148.
75. Photoelectronic Responses in Solution-Processed Perovskite CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> Solar Cells Studied by Photoluminescence and Photoabsorption Spectroscopy  
Y. Yamada, T. Nakamura, M. Endo, A. Wakamiya, Y. Kanemitsu, *IEEE J. Photovol.* **2015**, *5*, 401-405.
76. Spontaneous defect annihilation in CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> thin films at room temperature revealed by time-resolved photoluminescence spectroscopy  
Y. Yamada, M. Endo, A. Wakamiya, Y. Kanemitsu, *J. Phys. Chem. Lett.* **2015**, *6*, 482-486.

#### 総説 (査読有)

1. Boron as a Key Component for New  $\pi$  Electron Materials  
S. Yamaguchi and A. Wakamiya  
*Pure Appl. Chem.*, **2006**, *78*, 1413-1424.
2. Design and Synthesis of Boron-Containing Functional  $\pi$ -Electron Materials  
A. Wakamiya and S. Yamaguchi  
*有機合成化学協会誌*, **2008**, *66*, 858-868.
3. Exploiting boron characteristics to develop highly emissive organic solids  
A. Wakamiya,  
*Koukagaku*, **2012**, *43*, 35-38.



## 著書

1. 含ホウ素環状 $\pi$ 電子系の化学  
若宮淳志, 山口茂弘  
ヘテロ元素の特性を活かした新機能材料, CMC出版, 監修: 中條善樹, **2010**, 18-30.
2. 有機金属ハライドペロブスカイト材料のX線結晶構造解析  
若宮淳志, 山田泰裕, 金光義彦  
「ペロブスカイト型薄膜太陽電池の開発と最新技術」、  
宮坂力、瀬川浩司編、第2編 第6章、技術教育出版、**2014**.

## 解説論文

1. Ir-Catalyzed Direct Borylation of Arenes  
若宮淳志  
有機合成化学協会誌, **2007**, 64, 1304.
2. メビウス芳香族性がはじめて実証された  
若宮淳志  
月刊化学, **2008**, 63 (4), 64.
3. 高発光性有機固体の開発  
若宮淳志  
化学と工業, **2009**, 62 (9), 992.
4. 高発光性有機固体材料の開発  
若宮淳志  
和光純薬時報, **2011**, 79, 6.
5. ペロブスカイト半導体太陽電池  
山田泰裕、若宮淳志、金光義彦  
固体物理、**2014**, 49(9), 545-553.
6. 分子の形を電子物性に活かす—平面構造を鍵骨格に用いた電荷輸送性材料の開発—  
若宮淳志、西村秀隆、村田靖次郎  
月刊化学、**2014**, 69(11), 12-17.