

Publication List

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Sum of the Times Cited: **8052** h-index: **44** (by Scopus)

Representative publications

1. "Catalytic Deoxygenative Coupling of Aromatic Esters with Organophosphorus Compounds"
Kurosawa, M. B.; Isshiki, R.; Muto, K.; [Yamaguchi, J.*](#)
J. Am. Chem. Soc. **2020**, *142*, 7386–7392.
2. "Ester Transfer Reaction of Aromatic Esters with Haloarenes and Arenols by a Nickel Catalyst"
Isshiki, R.; Inayama, N.; Muto, K.; [Yamaguchi, J.*](#)
ACS Catal. **2020**, *10*, 3490–3494.
1. "Pd-Catalyzed Alkenyl Thioether Synthesis from Thioesters and N-Tosylhydrazones"
Ishitobi, K.; Muto, K.; [Yamaguchi, J.*](#)
ACS Catal. **2019**, *9*, 11685–11690.
2. "Pd-Catalyzed Dearomative Three-Component Reaction of Bromoarenes with Diazo Compounds and Allylborates"
Komatsuda, M.; Kato, H.; Muto, K.*; [Yamaguchi, J.*](#)
ACS Catal. **2019**, *9*, 8991–8995.
3. "Casein kinase 1 family regulates PRR5 and TOC1 in the Arabidopsis circadian clock"
Uehara, T. N.; Mizutani, Y.; Kuwata, K.; Hirota, T.; Sato, A.; Mizoi, J.; Takao, S.; Matsuo, H.; Suzuki, T.; Ito, S.; Saito, A. N.; Nishiwaki Ohkawa, T.; Yamaguchi-Shinozaki, K.; Yoshimura, T.; Kay, S. A.; Itami, K.; Kinoshita, T.; [Yamaguchi, J.*](#); Nakamichi, N.*
Proc Natl Acad Sci USA **2019**, *116*, 11528–11536.
4. "Synthesis of Octaaryl Naphthalenes and Anthracenes with Different Substituents"
Suzuki, S.; Itami, K.*; [Yamaguchi, J.*](#)
Angew. Chem., Int. Ed. **2017**, *56*, 15010–15013.
5. "Cross-coupling of Aromatic Esters and Amides"
Takise, R.; Muto, K.; [Yamaguchi, J.*](#)
Chem. Soc. Rev. **2017**, *46*, 5864–5888 (Review).
6. "Rh-catalyzed Regiodivergent Hydrosilylation of Acyl Aminocyclopropanes Controlled by Monophosphine Ligands"
Kondo, H.; Itami, K.; [Yamaguchi, J.*](#)
Chem. Sci. **2017**, *8*, 3799–3803.
7. "Decarbonylative Diaryl Ether Synthesis by Pd and Ni Catalysis"
Takise, R.; Isshiki, R.; Muto, K.; Itami, K.*; [Yamaguchi, J.*](#)
J. Am. Chem. Soc. **2017**, *139*, 3340–3343.
8. "C–H Arylation and Alkenylation of Imidazoles by Nickel Catalysis: Solvent-accelerated Imidazole C–H Activation"
Muto, K.; Hatakeyama, T.; [Yamaguchi, J.*](#); Itami, K.*
Chem. Sci. **2015**, *6*, 6792–6798.
9. "Decarbonylative Organoboron Cross-coupling of Esters by Nickel Catalysis"
Muto, K.; [Yamaguchi, J.*](#); Musaev, D. G.*; Itami, K.*
Nature Commun **2015**, *6*, 7508.
10. "C–H Activation Generates Period-Shortening Molecules That Target Cryptochrome in the Mammalian Circadian Clock"
Oshima, T.; Yamanaka, I.; Kumar, A.; [Yamaguchi, J.](#); Nishiwaki Ohkawa, T.; Muto, K.; Kawamura, R.; Hirota, T.; Yagita, K.; Irle, S.; Kay, S. A.; Yoshimura, T.*; Itami, K.*
Angew. Chem., Int. Ed. **2015**, *54*, 7193–7197.

11. "Synthesis and Characterization of Hexaarylbenzenes with Five or Six Different Substituents Enabled by Programmed Synthesis"
Suzuki, S.; Segawa, Y.; Itami, K.*; Yamaguchi, J.*
Nature Chem. **2015**, *7*, 227–233.
12. "Concise Syntheses of Dictyodendrins A and F by a Sequential C–H Functionalization Strategy"
Yamaguchi, A. D.; Chepiga, K. M.; Yamaguchi, J.*; Itami, K.*; Davies, H. M. L.
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13. "Stereodivergent Synthesis of Arylcyclopropylamines by Sequential C–H Borylation and Suzuki–Miyaura Coupling"
Miyamura, S.; Araki, M.; Suzuki, T.; Yamaguchi, J.*; Itami, K.*
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14. "Key Mechanistic Features of the Ni-catalyzed C–H/C–O Biaryl Coupling with Azoles and NaphthalenylPivalates"
Xu, H. Muto, K.; Yamaguchi, J.; Itami, K.*; Musaev, D.G.*
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15. "β-Selective C–H Arylation of Pyrroles: Leading to Concise Syntheses of Lamellarins C and I"
Ueda, K.; Amaike, K.; Maceiczky, R. M.; Itami, K.*; Yamaguchi, J.*
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16. "Ni-Catalyzed α-Arylation of Ketones with Phenol Derivatives"
Takise, R.; Muto, K.; Yamaguchi, J.*; Itami, K.*
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17. "Aromatic C–H Coupling with Hindered Arylboronic Acids by Pd/Fe Dual Catalysts"
Yamaguchi, K.; Kondo, H.; Yamaguchi, J.*; Itami, K.*
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18. "Isolation, Structure, and Reactivity of an Arylnickel(II) Pivalate Complex in Catalytic C–H/C–O Biaryl Coupling"
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J. Am. Chem. Soc. **2013**, *135*, 16384–16387.
19. "C–H Alkenylation of Azoles with Enols and Esters by Nickel Catalysis"
Lingkui, M.; Kamada, Y.; Muto, K.; Yamaguchi, J.*; Itami, K.*
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21. "C–H Bond Functionalization: Emerging Synthetic Tools for the Synthesis of Natural Products and Pharmaceuticals"
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22. "Decarbonylative C–H Coupling of Azoles and Aryl Esters: Unprecedented Nickel Catalysis and Application to the Synthesis of Muscoride A"
Amaike, K.; Muto, K.; Yamaguchi, J.*; Itami, K.*
J. Am. Chem. Soc. **2012**, *134*, 13573–13576.
23. "Nickel-Catalyzed C–H/C–O Coupling of Azoles with Phenol Derivatives"
Muto, K.; Yamaguchi, J.; Itami, K.*
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24. "Synthesis of Dragmacidin D via Direct C–H Couplings"
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Under revision, submitted and to be submitted

1. "TBA: Plant circadian rhythm"
Uehara, T. N.; Nonoyama, T.; Taki, K.; Kuwata, K.; Sato, A.; Fujimoto, K.J.; Hirota, T.; Matsuo, H.; Ono, A.; Takahara, T. T.; Tsutsui, H.; Suzuki, T.; Higashiyama, T.; Yanai, T.; Kay, S. A.; Itami, K.; Kinoshita, T.; Yamaguchi,

- J.*; Nakamichi, N.
2020, under revision.
2. "TBA: Synthesis of Multarylarenes"
Asako, T.; Suzuki, S.; Tanaka, S.; Ota, E.; Yamaguchi, J.*
2020, to be submitted.
 3. "TBA: Plant circadian rhythm"
Uehara, T. N.; Yamaguchi, J.*; Nakamichi, N. et al
2020, to be submitted.
 4. "TBA: Plant circadian rhythm"
Takahara, T. T.; Yamaguchi, J.*; Nakamichi, N. et al
2020, to be submitted.
 5. "TBA: Essay"
Narayama, K.; Yamaguchi, J.*
2020, to be submitted.
 6. "TBA: Dearomative transformation"
Kato, H.; Musha, I.; Muto, K.;* Yamaguchi, J.*
2020, to submitted.

Full publications

Published on ChemRxiv

1. "Synthesis of A Pentaarylcarbazole: Installation of Different Aryl Groups on Benzenoid Moiety"
Tannaka, K.; Asako, T.; Ota, E.; [Yamaguchi, J.*](#)
ChemRxiv. 2020, Preprint DOI: [10.26434/chemrxiv.12123834](https://doi.org/10.26434/chemrxiv.12123834)
2. " σ -Bond Hydroboration of Cyclopropanes"
Kondo H.; Miyamura, S.; Kobayashi, C.; Arifin, Irle, S.; Itami, K.; Yokogawa, D.; [Yamaguchi, J.*](#)
ChemRxiv. 2020, Preprint DOI: [10.26434/chemrxiv.11536392.v1](https://doi.org/10.26434/chemrxiv.11536392.v1)
3. "Ester Dance Reaction on the Aromatic Ring"
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ChemRxiv. 2019, Preprint DOI: [10.26434/chemrxiv.11472264.v1](https://doi.org/10.26434/chemrxiv.11472264.v1)

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4. "Solvent Selection Scheme Using Machine Learning Based on Physicochemical Description of Solvent Molecules: Application to Cyclic Organometallic Reaction"
Fujinami, M.; Maekawara, H.; Isshiki, R.; Seino, J.; [Yamaguchi, J.](#); Nakai, H.*
Bull. Chem. Soc. Jpn 2020, Advanced Publication.
5. "Catalytic Deoxygenative Coupling of Aromatic Esters with Organophosphorus Compounds"
Kurosawa, M. B.; Isshiki, R.; Muto, K.; [Yamaguchi, J.*](#)
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6. "Pd-Catalyzed C4-Dearomative Allylation of Benzyl Ammoniums with Allyltributylstannane"
Kayashima, Y.; Komatsuda, M.; Muto, K.;* [Yamaguchi, J.*](#)
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7. "Dearomative Allylation of Naphthyl Cyanohydrins by Palladium Catalysis: Catalyst-Enhanced Site Selectivity"
Yanagumoto, A.; Komatsuda, M.; Muto, K.;* [Yamaguchi, J.*](#)
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8. "Palladium-Catalyzed Mizoroki–Heck Reaction of Nitroarenes and Styrene Derivatives"
Okita, T.; Asahara, K. K.; Muto, K.; [Yamaguchi, J.*](#)
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9. "Ester Transfer Reaction of Aromatic Esters with Haloarenes and Arenols by a Nickel Catalyst"
Isshiki, R.; Inayama, N.; Muto, K.; [Yamaguchi, J.*](#)
ACS Catal. 2020, 10, 3490–3494.
Most Read Article (March and April 2020)
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10. "Asymmetric Synthesis of 5,7-Fused Ring System Enabled by Intramolecular Buchner Reaction with Chiral Rhodium Catalyst"
Hoshi, T.; Ota, E.; Inokuma, Y.; [Yamaguchi, J.*](#)
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11. "Pd-Catalyzed Alkenyl Thioether Synthesis from Thioesters and N-Tosylhydrazones"
Ishitobi, K.; Muto, K.; [Yamaguchi, J.*](#)
ACS Catal. 2019, 9, 11685–11690.
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Komatsuda, M.; Kato, H.; Muto, K.;* [Yamaguchi, J.*](#)
ACS Catal. 2019, 9, 8991–8995.
Most Read Article (September 2019)
13. "Pd-Catalyzed Denitrative Intramolecular C-H Arylation"
Asahara, K. K.; Okita, T.; Saito, A. N. Muto, K.; Nakao, Y.; [Yamaguchi, J.*](#)

- Org. Lett.** **2019**, 21, 4721–4724.
14. “Generation of Strong Casein Kinase 1 Inhibitor of Arabidopsis Thaliana”
Saito, A. N.; Matsuo, H.; Kuwata, K.; Ono, A.; Kinoshita, T.; [Yamaguchi, J.*](#); Nakamichi, N.*
Plant Direct **2019**, 3, e00172.
 15. “Casein kinase 1 family regulates PRR5 and TOC1 in the Arabidopsis circadian clock”
Uehara, T. N.; Mizutani, Y.; Kuwata, K.; Hirota, T.; Sato, A.; Mizoi, J.; Takao, S.; Matsuo, H.; Suzuki, T.; Ito, S.; Saito, A. N.; Nishiwaki Ohkawa, T.; Yamaguchi-Shinozaki, K.; Yoshimura, T.; Kay, S. A.; Itami, K.; Kinoshita, T.; [Yamaguchi, J.*](#); Nakamichi, N.*
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[Highlighted in Chunichi Shinbun](#)
 16. “Cell-based screen identifies a new potent and highly selective CK2 inhibitor for modulation of circadian rhythms and cancer cell growth”
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Science Advances **2019**, 5, eaau9060.
 17. “Studying Abroad Led to New Friendships and New Research Directions”
[Yamaguchi, J.*](#)
Yakugaku zasshi **2019**, 139, 229–233.
 18. “Pd-Catalyzed Dearomative Allylation of Benzyl Phosphates”
Komatsuda, M. Muto, K.*; [Yamaguchi, J.*](#)
Org. Lett. **2018**, 20, 4354–4357.
 19. “Synthesis of A Heptaarylisquinoline: Unusual Disconnection for Constructing Isoquinoline Frameworks”
Asako, T.; Suzuki, S.; Itami, K.; Muto, K.; [Yamaguchi, J.*](#)
Chem. Lett. **2018**, 47, 968–970.
[Selected as an Editor’s Choice](#)
[Selected as a Front Cover](#)
 20. “Dibenzofuran Synthesis: Decarbonylative Intramolecular C–H Arylation of Aromatic Esters”
Okita, T.; Komatsuda, M.; Saito, A. N.; Hisada, T.; Takahara, T. T.; Nakayama, K. P.; Isshiki, R.; Takise, R.; Muto, K.; [Yamaguchi, J.*](#)
Asian J. Org. Chem. **2018**, 7, 1358–1361.
[Invitation to Contribute to a Special Issue: C–H Activation](#)
 21. “Decarbonylative Methylation of Aromatic Esters by a Nickel Catalyst”
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 22. “Modular Synthesis of Heptaarylindole”
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 23. “Pd-Catalyzed Decarbonylative C–H Coupling of Azoles and Aromatic Esters”
Matsushita, K.; Takise, R.; Hisada, T.; Suzuki, S.; Isshiki, R.; Itami, K.; Muto, K.; [Yamaguchi, J.*](#)
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 24. “Decarbonylative Coupling Reaction of Aromatic Esters”
Isshiki, R.; Okita, T.; Muto, K.; [Yamaguchi, J.*](#)
J. Synth. Org. Chem. Jpn. **2018**, 76, 300–314. (Review).
 25. “Decarbonylative Aryl Thioether Synthesis by Ni Catalysis”
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 26. “Decarbonylative C–P Bond Formation using Aromatic Esters and Organophosphorus Compounds”
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- Ota, Y; Miyamura, S.; Araki, M; Itoh, Y; Yasuda, S.; Masada, M.; Taniguchi, T.; Sowa, Y; Sakai, T.; Itami, K.; Yamaguchi, J.*; Suzuki, T.*
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28. “Synthesis of fully arylated (hetero)arenes by Coupling Reaction”
Asako, T.; Muto, K.; Yamaguchi, J.*
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30. “Synthesis of Octaaryl Naphthalenes and Anthracenes with Different Substituents”
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31. “Cross-coupling of Aromatic Esters and Amides”
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32. “Thiazole-based Sigma-1 Receptor Ligands: Diversity by Late-stage C-H Arylation of Thiazoles, Structure Affinity and Selectivity Relationships and Molecular Interactions”
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33. “Theoretical Elucidation of Potential Enantioselectivity in a Pd-Catalyzed Aromatic C-H Coupling Reaction”
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34. “Synthesis of Multiply Arylated Pyridines”
Asako, T.; Hayashi, W.; Suzuki, S.; Amaiike, K.; Itami, K.; Muto, K.; Yamaguchi, J.*
Tetrahedron **2017**, *73*, 3669–3676
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35. “Rh-Catalyzed Regiodivergent Hydrosilylation of Acyl Aminocyclopropanes Controlled by Monophosphine ligands”
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36. “Decarbonylative Diaryl Ether Synthesis by Pd and Ni Catalysis”
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37. “Synthesis of Fully Arylated (Hetero)arenes”
Suzuki, S.; Yamaguchi, J.*
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38. “Structure-Activity Relation of AMOR Sugar Molecule that Activates Pollen-Tubes for Ovular Guidance”
Jiao J.; Mizukami, A.G.; Sankaranarayanan, S.; Yamaguchi, J.; Itami, K.; Higashiyama, T.*
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39. “Toward an Ideal Synthesis of (Bio)molecules through Direct Arene Assembling Reactions”
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Invited contribution for Award accounts of The Chemical Society of Japan Award for Young Chemists for 2012
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40. "Palladium-Catalyzed Decarbonylative Alkynylation of Aromatic Esters"
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[Most Read Article \(November–December 2016\)](#)
41. "Syntheses of Biologically Active 2-Arylcyclopropylamines"
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[Highlighted as a Front Cover](#)
42. "Palladium-Catalyzed Decarbonylative Cross-Coupling of Azinecarboxylates with Arylboronic Acids"
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43. "C–H Activation Enables Rapid Structure-Activity Relationship Study of Arylcyclopropyl amines for Potent and Selective LSD1 Inhibitors"
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[Editors Choice \(December 2016\)](#).
44. "Cyanation of Phenol Derivatives with Aminoacetonitriles by Nickel Catalysis"
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[Yamaguchi, J.*](#); Muto, K.; Itami, K.
Top Curr. Chem. **2016**, *374*, 55 (Review)
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46. "The AMOR Arabinogalactan Sugar Chain Induces Pollen-Tube Competency to Respond to Ovular Guidance"
Mizukami, A. G.; Inatsugi, R.; Jiao, J.; Kotake, T.; Kuwata, K.; Ootani, K.; Okuda, S.; Sankaranarayanan, S.; Sato, Y.; Maruyama, D.; Iwai, H.; Garénaux, E.; Sato, C.; Kitajima, K.; Tsumuraya, Y.; Mori, H.; [Yamaguchi, J.](#); Itami, K.; Sasaki, N.; Higashiya, T.*
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[Highlighted in Chunichi Shimbun, Asahi Shinbun, Nikkei Shinbun, Saga Shinbun, EurekAlert!, Kyodo Tsushin, goo News, Gunosy, Chem-Station](#)
47. "Development and Elucidation of the Ni-Catalyzed Direct Coupling Reaction"
[Yamaguchi, J.*](#); Muto, K.; Itami, K.
Chemical Times **2016**, 1–7 (Review).
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48. "Synthesis of Triarylpyridines in Thiopeptide Antibiotics by Using a C–H Arylation/Ring-Transformation Strategy"
Amaike, K.; Itami, K.; [Yamaguchi, J.*](#)
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49. "Microwave-assisted regioselective direct C–H arylation of thiazole derivatives leading to increased σ_1 receptor affinity"
Kokornaczyk, A.; Schepmann, D.; [Yamaguchi, J.](#); Itami, K.; Wunsch, B.*
Med. Chem. Commun. **2016**, *7*, 327–331.
50. "C–H Arylation and Alkenylation of Imidazoles by Nickel Catalysis: Solvent-accelerated Imidazole C–H Activation"
Muto, K.; Hatakeyama, T.; [Yamaguchi, J.*](#); Itami, K.*
Chem. Sci. **2015**, *6*, 6792–6798.
51. "Decarbonylative Organoboron Cross-coupling of Esters by Nickel Catalysis"
Muto, K.; [Yamaguchi, J.*](#); Musaev, D. G.*; Itami, K.*
Nature Commun **2015**, *6*, 7508.
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52. "C–H Activation Generates Period-Shortening Molecules That Target Cryptochrome in the Mammalian Circadian Clock"

Oshima, T.; Yamanaka, I.; Kumar, A.; [Yamaguchi, J.](#); Nishiwaki Ohkawa, T.; Muto, K.; Kawamura, R.; Hirota, T.; Yagita, K.; Irle, S.; Kay, S. A.; Yoshimura, T.*; Itami, K.*

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53. “Synthesis and Characterization of Hexaarylbenzenes with Five or Six Different Substituents Enabled by Programmed Synthesis”

Suzuki, S.; Segawa, Y.; Itami, K.*; [Yamaguchi, J.](#)*

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54. “Concise Syntheses of Dictyodendrins A and F by a Sequential C–H Functionalization Strategy”

Yamaguchi, A. D.; Chepiga, K. M.; [Yamaguchi, J.](#)*; Itami, K.*; Davies, H. M. L.

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