

Publication List

Researcher ID: [D-4198-2009](#)

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Sum of the Times Cited: **7803** h-index: **43** (by Scopus)

Representative publications

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.

- J. Am. Chem. Soc.* **2015**, *137*, 644–647.
13. “Stereodivergent Synthesis of Arylcyclopropylamines by Sequential C–H Borylation and Suzuki–Miyaura Coupling”
Miyamura, S.; Araki, M.; Suzuki, T.; Yamaguchi, J.*; Itami, K.*
Angew. Chem., Int. Ed. **2015**, *54*, 846–851.
 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.*
J. Am. Chem. Soc. **2014**, *136*, 14834–14844.
 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.*; J. Itami K.*
Angew. Chem., Int. Ed. **2014**, *53*, 6791–6794.
 17. “Aromatic C–H Coupling with Hindered Arylboronic Acids by Pd/Fe Dual Catalysts”
Yamaguchi, K.; Kondo, H.; Yamaguchi, J.*; Itami, K.*
Chem. Sci. **2013**, 3753–3757.
 18. “Isolation, Structure, and Reactivity of an Arylnickel(II) Pivalate Complex in Catalytic C–H/C–O Biaryl Coupling”
Muto, K.; Yamaguchi, J.*; Lei, A.*; Itami, K.*
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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Yamaguchi, K.; Kondo, H.; 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”
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J. Am. Chem. Soc. **2012**, *134*, 13573–13576.
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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: C–C Bond Activation”
Kondo, H.; Miyamura, S.; Kobayashi, C.; Arifin; Yokogawa, D.* Yamaguchi, J.*
2020, to be submitted.
2. “TBA: C–O bond activation”
Isshiki, R.; Inayama, N.; Muto, K.; Yamaguchi, J.*
2020, to be submitted.
3. “TBA: Essay”
Narayama, K.; Yamaguchi, J.*
2020, to be submitted.

4. "TBA: Deoxyganative coupling"
Kurosawa, M.; Isshiki, R.; Muto, K. Yamaguchi, J.*
2020, to be submitted.
5. "TBA: Dearomative transformation"
Kayashima, Y.; Komatsuda, M.; Muto, K.;* Yamaguchi, J*
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6. "TBA: Dearomative transformation"
Yanagumoto, I.; Komatsuda, M.; Muto, K.;* Yamaguchi, J*
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7. "TBA: Synthesis of Multarylarenes"
Asako, T.; Suzzki, S.; Tanaka, S.; Ota, E.; Yamaguchi, J*
2020, to be submitted.
8. "TBA: Synthesis of Multarylarenes"
Tannaka, K.; Asako, T.; Ota, E.; Yamaguchi, J.*
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9. "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.
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10. "TBA: Machine Learning"
Fujinami, M.; Maekawara, H.; Isshiki, R.; Seino, J.; Yamaguchi, J; Nakai, H.*
2020, under revision

Full publications

1. "Ester Dance Reaction on the Aromatic Ring"
Matsushita, K.; Takise, R.; Muto, K.; [Yamaguchi, J.*](#)
ChemRxiv. 2019 DOI: [10.26434/chemrxiv.11472264.v1](https://doi.org/10.26434/chemrxiv.11472264.v1)
2. "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.*](#)
Org. Lett. 2019, ASAP. DOI: 10.1021/acs.orglett.9b04048
3. "Pd-Catalyzed Alkenyl Thioether Synthesis from Thioesters and N-Tosylhydrazones"
Ishitobi, K.; Muto, K.; [Yamaguchi, J.*](#)
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4. "Pd-Catalyzed Dearomative Three-Component Reaction of Bromoarenes with Diazo Compounds and Allylborates"
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[Most Read Article \(September, 2019\)](#)
5. "Pd-Catalyzed Denitrative Intramolecular C-H Arylation"
Asahara, K. K.; Okita, T.; Saito, A. N. Muto, K.; Nakao, Y.; [Yamaguchi, J.*](#)
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6. "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.*
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7. "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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8. "Cell-based screen identifies a new potent and highly selective CK2 inhibitor for modulation of circadian rhythms and cancer cell growth"
Oshima, T.; Niwa, Y.; Kuwata, K.; Srivastava, A.; Hyoda, T.; Tsuchiya, Y.; Kumagai, M.; Tsuyuguchi, M.; Tamaru, T.; Sugiyama, A.; Ono, N.; Zolboot, N.; Aikawa, Y.; Oishi, S.; Nonami, A.; Arai, F.; Hagihara, S.; [Yamaguchi, J.](#); Tama, F.; Kunisaki, Y.; Yagita, K.; Ikeda, M.; Kinoshita, T.; Kay, S. A.; Itami, K.; Hirota, T.*
Science Advances 2019, 5, eaau9060.
9. "Studying Abroad Led to New Friendships and New Research Directions"
[Yamaguchi, J.*](#)
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10. "Pd-Catalyzed Dearomative Allylation of Benzyl Phosphates"
Komatsuda, M. Muto, K.*; [Yamaguchi, J.*](#)
Org. Lett. 2018, 20, 4354-4357.
11. "Synthesis of A Heptaaryloisoquinoline: Unusual Disconnection for Constructing Isoquinoline Frameworks"
Asako, T.; Suzuki, S.; Itami, K.; Muto, K.; [Yamaguchi, J.*](#)
Chem. Lett. 2018, 47, 968-970.
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12. "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.*](#)
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13. "Decarbonylative Methylation of Aromatic Esters by a Nickel Catalyst"
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14. “Modular Synthesis of Heptaarylindole”
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Matsushita, K.; Takise, R.; Hisada, T.; Suzuki, S.; Isshiki, R.; Itami, K.; Muto, K.; [Yamaguchi, J.*](#)
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Isshiki, R.; Okita, T.; Muto, K.; [Yamaguchi, J.*](#)
J. Synth. Org. Chem. Jpn. **2018**, *76*, 300–314. (Review).
17. “Decarbonylative Aryl Thioether Synthesis by Ni Catalysis”
Ishitobi, K.; Isshiki, R.; Asahara, K. K.; Lim, C.; Muto, K.; [Yamaguchi, J.*](#)
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18. “Decarbonylative C–P Bond Formation using Aromatic Esters and Organophosphorus Compounds”
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Org. Lett. **2018**, *20*, 1150–1153.
19. “Design, Synthesis and Evaluation of γ -Turn Mimetics as LSD1-Selective Inhibitors”
Ota, Y.; Miyamura, S.; Araki, M.; Itoh, Y.; Yasuda, S.; Masada, M.; Taniguchi, T.; Sowa, Y.; Sakai, T.; Itami, K.; [Yamaguchi, J.*](#); Suzuki, T.*
Bioorg. Med. Chem. **2018**, *26*, 775–785.
20. “Synthesis of fully arylated (hetero)arenes by Coupling Reaction”
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21. “Catalytic α -Arylation of Ketones with Heteroaromatic Esters”
Isshiki, R.; Takise, R.; Itami, K.; Muto, K.; [Yamaguchi, J.*](#)
Synlett **2017**, *28*, 2599–2603 (Invited contribution).
Published as part of the Cluster *C–O Activation*
22. “Synthesis of Octaaryl Naphthalenes and Anthracenes with Different Substituents”
Suzuki, S.; Itami, K.*; [Yamaguchi, J.*](#)
Angew. Chem., Int. Ed. **2017**, *56*, 15010–15013.
23. “Cross-coupling of Aromatic Esters and Amides”
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Chem. Soc. Rev. **2017**, *46*, 5864–5888 (Review).
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24. “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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25. “Theoretical Elucidation of Potential Enantioselectivity in a Pd-Catalyzed Aromatic C–H Coupling Reaction”
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26. “Synthesis of Multiply Arylated Pyridines”
Asako, T.; Hayashi, W.; Suzuki, S.; Amaike, K.; Itami, K.; Muto, K.; [Yamaguchi, J.*](#)
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27. “Rh-catalyzed regiodivergent hydrosilylation of acyl aminocyclopropanes controlled by monophosphine ligands”
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28. “Decarbonylative Diaryl Ether Synthesis by Pd and Ni Catalysis”
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29. "Synthesis of Fully Arylated (Hetero)arenes"
Suzuki, S.; [Yamaguchi, J.*](#)
Chem. Comm. **2017**, *53*, 1568–1582 (Invited contribution, Review).
30. "Structure-Activity Relation of AMOR Sugar Molecule that Activates Pollen-Tubes for Ovular Guidance"
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32. "Palladium-Catalyzed Decarbonylative Alkynylation of Aromatic Esters"
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33. "Syntheses of Biologically Active 2-Arylcyclopropylamines"
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34. "Palladium-Catalyzed Decarbonylative Cross-Coupling of Azinecarboxylates with Arylboronic Acids"
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35. "C-H Activation Enables Rapid Structure-Activity Relationship Study of Arylcyclopropyl amines for Potent and Selective LSD1 Inhibitors"
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36. "Cyanation of Phenol Derivatives with Aminoacetonitriles by Nickel Catalysis"
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37. "Nickel-Catalyzed Aromatic C–H Functionalization"
[Yamaguchi, J.*](#); Muto, K.; Itami, K.
Top Curr. Chem. **2016**, *374*, 55 (Invited contribution, Review).
38. "The AMOR Arabinogalactan Sugar Chain Induces Pollen-Tube Competency to Respond to Ovular Guidance"
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45. “Synthesis and Characterization of Hexaarylbenzenes with Five or Six Different Substituents Enabled by Programmed Synthesis”
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46. “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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[Highlighted in EurekAlerts!, Phys.Org., ResearchSEA, Science Newline, Science Daily, Breaking New, Health Medicine Network, Bright Surf, Sci Casts, Medical News Today, Emory News Center, Society for Neuroscience.](#)
47. “Synthesis, Affinity and Structure Activity Relationships of Novel, Selective and Dual Targeting CCR2 and CCR5 Receptor Antagonists”
Junker, A.; Kokornaczyk, A. K.; Frehland, B.; Schepmann, D.; [Yamaguchi, J.](#); Itami, K.; Faust, A.; Hermann, S.; Wagner, S.; Kopka, K.; Schäfers, M.; Koch, M.; Weiss, C.; Zweemer, A. J. M.; Heitman, L. H.; Wünsch, B.*
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48. “Ni-Catalyzed α -Arylation of Esters and Amides with Phenol Derivatives”
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51. "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.*](#)
J. Am. Chem. Soc. **2014**, *136*, 13226–13232.
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52. "Regioselective Allylic C–H Oxidation of Terminal Alkenes with Pd/sulfoxide-oxazoline Catalyst"
Kondo, H.; Yu, F.; [Yamaguchi, J.](#); Liu, G.*; Itami, K.*
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