

Publication List

Researcher ID: D-4198-2009 (<http://www.researcherid.com/rid/D-4198-2009>)

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Sum of the Times Cited: **6277** h-index: **40**

Representative publications

1. "Synthesis of Octaaryl Naphthalenes and Anthracenes with Different Substituents"
Suzuki, S.; Itami, K.*; [Yamaguchi, J.*](#)
Angew. Chem., Int. Ed. **2017**, *56*, 15010-15013.
2. "Cross-coupling of Aromatic Esters and Amides"
Takise, R.; Muto, K.; [Yamaguchi, J.*](#)
Chem. Soc. Rev. **2017**, *46*, 5864-5888 (Review).
3. "Rh-catalyzed Regiodivergent Hydrosilylation of Acyl Aminocyclopropanes Controlled by Monophosphine Ligands"
Kondo, H.; Itami, K.; [Yamaguchi, J.*](#)
Chem. Sci. **2017**, *8*, 3799-3803.
4. "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.
5. "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.
6. "Decarbonylative Organoboron Cross-coupling of Esters by Nickel Catalysis"
Muto, K.; [Yamaguchi, J.*](#); Musaev, D. G.*; Itami, K.*
Nature Commun **2015**, *6*, 7508.
7. "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.
8. "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.
9. "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.
10. "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.
11. "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.
12. "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.
13. "Ni-Catalyzed α-Arylation of Ketones with Phenol Derivatives"
Takise, R.; Muto, K.; [Yamaguchi, J.*](#); Itami, K.*
Angew. Chem., Int. Ed. **2014**, *53*, 6791-6794.

14. "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.
15. "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.
16. "C–H Alkenylation of Azoles with Enols and Esters by Nickel Catalysis"
Lingkui, M.; Kamada, Y.; Muto, K.; [Yamaguchi, J.*](#); Itami, K.*
Angew. Chem., Int. Ed. **2013**, *52*, 38, 10048–10051.
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. "C–H Bond Functionalization: Emerging Synthetic Tools for the Synthesis of Natural Products and Pharmaceuticals"
[Yamaguchi, J.*](#); Yamaguchi, A. D.; Itami, K.*
Angew. Chem., Int. Ed. **2012**, *51*, 8960–9009 (Review).
19. "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.
20. "Nickel-Catalyzed C–H/C–O Coupling of Azoles with Phenol Derivatives"
Muto, K.; [Yamaguchi, J.](#); Itami, K.*
J. Am. Chem. Soc. **2012**, *134*, 169–172.
21. "Synthesis of Dragmacidin D via Direct C–H Couplings"
Mandal, D.; Yamaguchi, A. D.; [Yamaguchi, J.*](#); Itami, K.*
J. Am. Chem. Soc. **2011**, *133*, 19660–19663.

Under revision, submitted and to be submitted

1. "TBA: C–C Bond Activation"
Kondo, H.; Miyamura, S.; Kobayashi, C.; Arifin; Irle, S.; Itami, K. Yokogawa, D.* [Yamaguchi, J.*](#)
2018, to be submitted.
2. "TBA: Mammalian Circadian Modulator" 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.
2018, under revision.
3. "TBA: Plant Circadian Modulator"
Uehara, T. N.; Mizutani, Y.; Kuwata, K.; Hirota, T.; Sato, A.; Takao, S.; Matsuo, H.; Nishiwaki-Ohkawa, T.; Yoshimura, T.; Kay, S.; Itami, K.; Kinoshita, T.; [Yamaguchi, J.*](#); Nakamichi, N.*
2018, under revision.

Full publications

1. "Pd-Catalyzed Dearomative Allylation of Benzyl Phosphates"
Komatsuda, M. Muto, K.*; [Yamaguchi, J.*](#)
Org. Lett. **2018**, *20*, 4354–4357.
2. "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.
Highlighted as an Editor's Choice
Selected as a Front Cover
3. "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
4. "Decarbonylative Methylation of Aromatic Esters by a Nickel Catalyst"
Okita, T.; Muto, K.; [Yamaguchi, J.*](#)
Org. Lett. **2018**, *20*, 3132–3135.
Highlighted in Synfacts
5. "Modular Synthesis of Heptaarylindole"
Suzuki, S.; Asako, T.; Itami, K.; [Yamaguchi, J.*](#)
Org. Biomol. Chem. **2018**, *16*, 3771–3776.
6. "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.*](#)
Chem Asian. J. **2018**, *13*, 2393–2396.
Invitation to Contribute to a Special Issue: Homogeneous Catalysis from Young Investigators in Asia
7. "Decarbonylative Coupling Reaction of Aromatic Esters"
Isshiki, R.; Okita, T.; Muto, K.; [Yamaguchi, J.*](#)
J. Synth. Org. Chem. Jpn. **2018**, *76*, 300–314. (Review).
8. "Decarbonylative Aryl Thioether Synthesis by Ni Catalysis"
Ishitobi, K.; Isshiki, R.; Asahara, K. K.; Lim, C.; Muto, K.; [Yamaguchi, J.*](#)
Chem. Lett. **2018**, *47*, 756–759.
9. "Decarbonylative C–P Bond Formation using Aromatic Esters and Organophosphorus Compounds"
Isshiki R.; Muto, K.; [Yamaguchi, J.*](#)
Org. Lett. **2018**, *20*, 1150–1153.
10. "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.
11. "Synthesis of fully arylated (hetero)arenes by Coupling Reaction"
Asako, T.; Muto, K.; [Yamaguchi, J.*](#)
J. Synth. Org. Chem. Jpn. **2018**, *76*, 98–110 (Review).
12. "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).
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13. "Synthesis of Octaaryl Naphthalenes and Anthracenes with Different Substituents"
Suzuki, S.; Itami, K.*; [Yamaguchi, J.*](#)
Angew. Chem., Int. Ed. **2017**, *56*, 15010–15013.
14. "Cross-coupling of Aromatic Esters and Amides"
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Chem. Soc. Rev. **2017**, *46*, 5864–5888 (Review).
Highlighted as an Inside Backcover
15. "Thiazole-based sigma-1 receptor ligands: Diversity by late-stage C-H arylation of thiazoles, structure

- affinity and selectivity relationships and molecular interactions”
Kokornaczyk, A.; Schepmann, D.; [Yamaguchi, J.](#); Itami, K.; Laurini, E.; Fermeglia, M.; Pricl, S.; Wünsch, B*
ChemMedChem **2017**, *12*, 1070–1080.
16. “Theoretical Elucidation of Potential Enantioselectivity in a Pd-Catalyzed Aromatic C-H Coupling Reaction”
Nishimoto, Y.; Kondo, H.; Yamaguchi, K.; Yokogawa, D.; [Yamaguchi, J.](#); Itami, K.; Irle, S*
J. Org. Chem. **2017**, *82*, 4900–4906.
17. “Synthesis of Multiply Arylated Pyridines”
Asako, T.; Hayashi, W.; Suzuki, S.; Amaike, K.; Itami, K.; Muto, K.; [Yamaguchi, J.](#)*
Tetrahedron **2017**, *73*, 3669–3676 (Invited contribution).
18. “Rh-catalyzed regiodivergent hydrosilylation of acyl aminocyclopropanes controlled by monophosphine ligands”
Kondo, H.; Itami, K.; [Yamaguchi, J.](#)*
Chem. Sci. **2017**, *8*, 3799–3803.
19. “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.
Most Read Article (March, 2017)
Highlighted in Chemical Daily, Nikkei-sangyo Shinbun, Phys.org, c2w, Science Daily, Chem-Station
20. “Synthesis of Fully Arylated (Hetero)arenes”
Suzuki, S.; [Yamaguchi, J.](#)*
Chem. Commun. **2017**, *53*, 1568–1582 (Invited contribution, Review).
21. “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.*
Plant Physiol. **2017**, *173*, 354–363 (Invited contribution).
22. “Toward an Ideal Synthesis of (Bio)molecules through Direct Arene Assembling Reactions”
[Yamaguchi, J.](#)*; Itami, K.*
Bull. Chem. Soc. Jpn. **2017**, *90*, 367–383 (Invited contribution, Award accounts).
The Chemical Society of Japan Award for Young Chemists for 2012
Selected As Back Cover Picture
Most Read Article (December, 2016)
23. “Palladium-Catalyzed Decarbonylative Alkynylation of Aromatic Esters”
Okita, T.; Kumazawa, K.; Takise, R.; Muto, K.; Itami, K.*; [Yamaguchi, J.](#)*
Chem Lett. **2017**, *46*, 218–220.
Most Read Article (November–December, 2016)
24. “Syntheses of Biologically Active 2-Arylcyclopropylamines”
Miyamura, S.; Itami, K.; [Yamaguchi, J.](#)*
Synthesis **2017**, *49*, 1131–1149 (Review).
Highlighted as a Front Cover
25. “Palladium-Catalyzed Decarbonylative Cross-Coupling of Azinecarboxylates with Arylboronic Acids”
Muto, K.; Hatakeyama, T.; Itami, K.*; [Yamaguchi, J.](#)*
Org. Lett. **2016**, *18*, 5106–5109.
26. “C-H Activation Enables Rapid Structure-Activity Relationship Study of Arylcyclopropyl amines for Potent and Selective LSD1 Inhibitors”
Miyamura, S.; Araki, M.; Ota, Y.; Itoh, Y.; Yasuda, S.; Masada, M.; Taniguchi, T.; Sowa, Y.; Sakai, T.; Suzuki, T.*; Itami, K.*; and [Yamaguchi, J.](#)*
Org. Biomol. Chem. **2016**, *14*, 8576–8585.
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27. “Cyanation of Phenol Derivatives with Aminoacetonitriles by Nickel Catalysis”
Takise, R.; Itami, K.*; [Yamaguchi, J.](#)*
Org. Lett. **2016**, *18*, 4428–4431.
28. “Nickel-Catalyzed Aromatic C–H Functionalization”
[Yamaguchi, J.](#)*; Muto, K.; Itami, K.
Top Curr. Chem. **2016**, *374*, 55 (Invited contribution, Review).

29. "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.*
Current Biology 2016, 26, 1091–1097.
Highlighted in Chunichi Shimbun, Asahi Shinbun, Nikkei Shinbun, Saga Shinbun, EurekAlert!, Kyodo Tsushin, goo News, Gunosy, Chem-Station
30. "Development and Elucidation of the Ni-Catalyzed Direct Coupling Reaction"
[Yamaguchi, J.](#)*; Muto, K.; Itami, K.
Chemical Times 2016, 1–7 (Invited contribution, Review).
31. "Synthesis of Triarylpyridines in Thiopeptide Antibiotics by Using a C–H Arylation/Ring-Transformation Strategy"
Amaiike, K.; Itami, K.; [Yamaguchi, J.](#)*
Chem. Eur. J. 2016, 22, 4384–4388.
32. "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.
33. "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.
Highlighted in Sience Daily, Phys. Org, Nature Communciations Highlights Article
34. "Decarbonylative Organoboron Cross-coupling of Esters by Nickel Catalysis"
Muto, K.; [Yamaguchi, J.](#)*; Musaev, D. G.*; Itami, K.*
Nature Commun 2015, 6, 7508.
Highlighted in Sience Daily, Phys. Org, Nature Communciations Highlights Article
35. "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.
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36. "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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37. "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.
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.
38. "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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39. “Ni-Catalyzed α -Arylation of Esters and Amides with Phenol Derivatives”
Koch, E.; Takise, R.; Studer, A.; [Yamaguchi, J.](#)*; Itami, K.*
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40. “Stereodivergent Synthesis of Arylcyclopropylamines by Sequential C–H Borylation and Suzuki–Miyaura Coupling”
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41. “Key Mechanistic Features of the Ni-catalyzed C–H/C–O Biaryl Coupling with Azoles and NaphthalenylPivalates”
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42. “ 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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43. “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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45. “2,4- and 2,5-Disubstituted Arylthiazoles: Rapid Synthesis by C–H Coupling and Biological Evaluation”
Lohrey, L.; Uehara, T. N.; Tani, S.; [Yamaguchi, J.](#)*; Humpf, H.-U.*; Itami, K.*
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46. “Manganese-Catalyzed Intermolecular C–H/C–H Coupling of Carbonyls and Heteroarenes”
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47. “Late-Stage C–H Coupling Enables Rapid Identification of HDAC Inhibitors: Synthesis and Evaluation of NCH-31 Analogues”
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48. “Diverse Modification of the 4-Methylphenyl Moiety of TAK-779 by Late-Stage Suzuki–Miyaura Cross-Coupling”
Junker, A.; Schepmann, D.; [Yamaguchi, J.](#); Itami, K.; Faust, A.; Kopka, K.; Wagner, S.; Wünsch*, B.
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49. "Programmed Synthesis of Arylthiazoles through Sequential C-H Couplings"
Tani, S.; Uehara, T. N.; [Yamaguchi, J.](#); Itami, K.*
Chem. Sci. **2014**, *5*, 123–135.
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50. "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.*
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51. "Palladium-Catalyzed C–H and C–N Arylation of Aminothiazoles with Arylboronic Acids"
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52. "C–H Alkenylation of Azoles with Enols and Esters by Nickel Catalysis"
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53. "Aromatic C–H Coupling with Hindered Arylboronic Acids by Pd/Fe Dual Catalysts"
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54. "Synthesis of Thiophene-Based TAK-779 Analogues by C–H Arylation"
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55. "Nickel-Catalyzed Direct Coupling of Heteroarenes"
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