Publication List

Original Papers

1. Suga, T.*; Ukaji, Y.* Molecular Transformations Based on Homolytic Cleavage of Alcohol and Ether C–O Bonds. *J. Synth. Org. Chem., Jpn.* **2024**, *82*, 697–708. **DOI:** 10.5059/yukigoseikyokaishi.82.697 (JP)

2. Suga, T.*; Takada, R.; Sakamoto, M. Ukaji, Y.* Directing-Group-Assisted Non-Strained Ether C–O Bond Homolysis Mediated by Low-Valent Titanium. *Org. Lett.* **2024**, *26*, 2315–2310. **DOI:** 10.1021/acs.orglett.4c00590

3. Suga, T.*; Kondo, M.; Takahashi, Y.; Ukaji, Y.* Nickel-Catalyzed Cross-Coupling Between Benzyl Alcohols and Alkenyl Triflates Assisted by Titanium-Mediated Radical C–O Bond Cleavage. *Bull. Chem. Soc. Jpn.* **2024**, *97*, uoad003. Highlighted in *J. Synth. Org. Chem., Jpn.* **2024**, *82*, 1229 and CSJ Journals flyer. **DOI:** 10.1093/bulcsj/uoad003

4. Ohno, H.; Takahashi, R.; Suga, T.; Soeta, T.; Ukaji, Y.* Divergent transformation of *C,N*-cyclic-*N*'-acyl azomethine imines by reaction with diazo compounds. *Org. Biomol. Chem.* **2023,** *21,* 7891–7894. **DOI:** 10.1039/d3ob01165h

5. Sato, Y.; Ukei, T.; Tsugeno, H.; Suga, T.; Soeta, T.; Ukaji, Y.* Asymmetric Hetero-Diels-Alder Reaction of 4-Phenyl-1,2,4-triazole-3,5-dione with 2,4-Dienyl Carboxylic Acids. *Synthesis*, **2023**, *55,* 3342–3348. **DOI:** 10.1039/d3ob01165h

6. Suga, T.*; Miki, C.; Ukaji, Y.* From-Neutral-to-Neutral Reductive Radical Coupling of Non-Activated Alcohols and Styrenes. *ChemistryEurope* **2023**, *1*, e202300033. **DOI:** 10.1002/ceur.202300033

7. Sakurai, T.; Yano, T.; Suga, T.; Soeta, T.; Ukaji, Y.* Formal Methylene Insertion into the C–H Bond of α-Carbonyl Aldonitrones with Dimethylsulfoxonium Methylide. *Bull. Chem. Soc. Jpn.* **2022**, *95*, 1518–1520. **DOI:** 10.1246/bcsj.20220212

8. Wei, Q.; Ii, H.; T. Suga, T.*; Soeta, T.; Maeda, H.; Ukaji, Y.* Hydroxy Group-Directed Diastereoselective Paternó–Büchi Reaction between Arylglyoxylates and Furfuryl Alcohols. *Chem. Lett.* **2022**, *51,* 1143–1145. **DOI:** 10.1246/cl.220437

9. Suga, T.*; Takada, R.; Shimazu, S.; Sakata, M.; Ukaji, Y.* Highly (*E*)-Selective Trisubstituted Alkene Synthesis by Low-Valent Titanium-Mediated Homolytic Cleavage of Alcohol C–O Bond. *J. Org. Chem.* **2022**, *87*, 7487–7493. **DOI:** 10.1021/acs.joc.2c00246

10. Suga, T.*; Takahashi, Y.; Miki, C.; Ukaji, Y.* Direct and Unified Access to Carbon Radicals from Aliphatic Alcohols by Cost-Efficient Titanium-Mediated Homolytic C–OH Bond Cleavage. *Angew. Chem. Int. Ed.* **2022**, *61*, e202112533. **DOI:** 10.1002/anie.202112533

11. Suga, T.*; Nakamura, M.; Takada, R.; Ukaji, Y.* Conjugate Addition of Acetal-Derived Benzyl Radicals Generated from Low-Valent Titanium-Mediated C–O Bond Cleavage. *Bull. Chem. Soc. Jpn.* **2021**, *94*, 1258–1260. **DOI:** 10.1246/bcsj.20200364

12. Hasegawa, M.; Suga, T.; Soeta, T.; Ukaji, Y.* Synthesis of 3,6-Duhydro-2H-1,2-oxazines via Dimethylsulfoxonium Methylide to α,β-Unsaturated Nitrones. *J. Org. Chem.* **2020**, *85*, 11258–11264. **DOI:** 10.1021/acs.joc.0c01349

13. Suga, T.*; Takahashi, Y.; Ukaji, Y.* One-Shot Radical Cross Coupling Between Benzyl Alcohols and Alkenyl Halides Using Ni/Ti/Mn System, *Adv. Synth. Catal.* **2020**, *362*, 5622−5626. VIP article. **DOI:** 10.1002/adsc.202000945

14. Saitou, T.; Jin, Y.; Isobe, K.; Suga, T.; Takaya, J.; Iwasawa N.* Rh-Catalyzed Direct Carboxylation of Alkenyl C—H Bonds of Alkenylpyrazoles. *Chem. Asian J.* **2020**, *15*, 1941–1944. **DOI:** 10.1002/asia.202000476

15. Osakabe, H.; Saito, S.; Miyagawa, M.; Suga, T.; Uchikura, T.; Akiyama, T.*, Enantioselective Dehydroxyhydrogenation of 3-Indolylmethanols by the Combined Use

of Benzothiazoline and Chiral Phosphoric Acid: Construction of a Tertiary Carbon Center. *Org. Lett.* **2020**, *22*, 2225–2229. **DOI:** 10.1021/acs.orglett.0c00430

16. Takahashi, R.; Phan, N. H. T.; Suga, T.; Soeta, T.; Ukaji, Y.* Synthesis of Optically Acitve *γ*-Lactams by Palladium Catalyzed Asymmetric Dicarbonylation Reaction of *N*-Arylsufonyl Homoallylic Amines. *Heterocycles* **2019**, *98*, 1044–1054. **DOI:** 10.3987/com-19-14112

17. Soeta, T.*; Ohashi, N.; Kobayashi, T.; Sakata, Y.; Suga, T.; Ukaji, Y.* Synthesis of Sterically Fixed Phytochrome Chromophore Derivatives bearing a *15E-anti* fixed or *15E*-fixed CD-Ring Component. *J. Org. Chem.* **2018**, *83,* 10743–10748. **DOI:** 10.1021/acs.joc.8b01252

18. Suga, T.*; Ukaji, Y.* Nickel-Catalyzed Cross-Electrophile Coupling between Benzyl Alcohols and Aryl Halides Assisted by Titanium Co-reductant. *Org. Lett.* **2018**, *20*, 7846–7850. Top 10 most read article in Dec. 2018. **DOI:** 10.1021/acs.orglett.8b03367

19. Suga, T.*; Shimazu, S.; Ukaji, Y.* Low-Valent Titanium-Mediated Radical Conjugate Addition Using Benzyl Alcohols as Benzyl Radical Sources. *Org. Lett.* **2018**, *20*, 5389–5392. Highlighted in Knochel. P.; Graßl, S. *Synfacts* **2018**, *14*, 1184, *Organic Chemistry Portal*, etc. **DOI:** 10.1021/acs.orglett.8b02305

20. Hasegawa, M.; Nomoto, A.; Suga, T.; Soeta, T.; Ukaji, Y.* Palladium-Catalyzed C-H Alkenylation of *C*-Aryl Nitrones. *Chem. Lett.* **2017**, *46*, 46–47. **DOI:** 10.1246/cl.160821

21. Tong, T. M. T.; Soeta, T.; Suga, T.; Kawamoto, K.; Hayaahi, Y.; Ukaji, Y. Formal Total Synthesis of Manzacidin C Based on Asymmetric 1,3-Dipolar Cycloaddition of Azomethine Imines. *J. Org. Chem*. **2017**, *82*, 1969–1976. **DOI:** 10.1021/acs.joc.6b02816

22. Saito, K.; Umi, T.; Yamada, T.; Suga, T.; Akiyama, T.* Niobium(V)-catalyzed defluorinative triallylation of α,α,α-trifluorotoluene derivatives by triple C–F bond activation. *Org. Biomol. Chem.* **2017**, *15*, 1767–1770. **DOI:** 10.1039/C6OB02825J

23. Suga, T.; Iizuka, S.; Akiyama, T.* Versatile and highly efficient oxidative C(sp^3)–H bond functionalization of tetrahydroisoquinoline promoted by bifunctional diethyl azodicarboxylate (DEAD): scope and mechanistic insights. *Org. Chem. Front.* **2016**, *3*, 1259–1264. **DOI:** 10.1039/C6QO00249H

24. Suga, T.; Saitou, T.; Takaya, J.; Iwasawa, N. Mechanistic study of rhodium-catalyzed carboxylation of simple aromatic compounds with carbon dioxide. *Chem. Sci.* **2016**, *8*, 1454–1462. **DOI:** 10.1039/C6SC03838G

25. Suga, T.; Mizuno, H.; Takaya, J.; Iwasawa, N.* Direct Carboxylation of Simple Arenes with CO_2 through a rhodium-catalyzed C-H bond activation. *Chem. Commun.* **2014**, *50*, 14360–14363. **DOI:** 10.1039/C4CC06188H

26. Kusama, H.; Sogo, H.; Saito, K.; Suga, T.; Iwasawa, N.* Construction of Cycohepta[b]indoles via Platinum-Catalyzed Intermolecular Formal [4+3]-Cycloaddition Reaction of α,β-Unsaturated Carbene Complex Intermediates with Siloxydienes. *Synlett*, **2013**, *24*, 1364–1370. **DOI:** 10.1055/s-0033-1338938

27. Saito, K.; Sogou, H.; Suga, T.; Kusama, H.; Iwasawa, N.* Platinum(II)-Catalyzed Generation and [3+2] Cycloaddition Reaction of α,β-Unsaturated Carbene Complex Intermediates for the Preparation of Polycyclic Compounds. *J. Am. Chem. Soc.* **2011**, *133*, 689–691. **DOI:** 10.1021/ja108586d

Reviews

1. Suga. T. Organic Transformations Utilizing Photo–Induced Electron Transfer of Electron–Donor–Acceptor Complexes. *J. Synth. Org. Chem., Jpn.* **2019**, *77*, 367–368. (JP)

Contribution to Books

1. 菅 拓也, アルコールを炭素ラジカルに変換する, 化学と工業「飛翔する若手研究者」, 日本化学会, 2024 年 9 月 (JP)
2. 菅 拓也, 100 万回働く不斉有機触媒, 化学, 化学同人, 2019 年 4 月 (JP)