

## 履歴書

### 澤間 善成 (Yoshinari Sawama)

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平成13年3月 大阪大学薬学部製薬化学科 卒業  
平成13年4月 大阪大学大学院薬学研究科博士前期課程 入学  
平成15年3月 大阪大学大学院薬学研究科博士前期課程 修了  
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平成18年3月 大阪大学大学院薬学研究科博士後期課程 修了  
平成17年4月 日本学術振興会特別研究員 (DC2)  
平成18年3月 大阪大学大学院薬学研究科分子薬科学専攻博士後期課程 修了  
平成18年4月 日本学術振興会特別研究員 (PD)  
平成19年4月 独国ドルトムント工科大学化学科博士研究員  
平成21年4月 立命館グローバルイノベーション研究機構博士研究員  
兼 大阪大学大学院薬学研究科特任助教  
平成22年2月 岐阜薬科大学・助教  
平成27年10月 岐阜薬科大学・講師  
平成29年7月 岐阜薬科大学・准教授  
令和3年4月 大阪大学大学院薬学研究科・准教授  
現在に至る



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#### [原著論文]

- 1) Copper-Catalyzed Aqueous N–O Bond Cleavage of 2-Oxa-3-Azabicyclo Compounds to Cyclic cis-1,4-Amino Alcohols  
N. Yasukawa, Y. Miki, M. Kuwata, H. Sajiki\* Y. Sawama\*  
***ChemSusChem***, 13, 5632-5637 (2020).  
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- 2) Hydroquinone and Benzoquinone-Catalyzed Aqueous Knoevenagel Condensation  
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***Org. Biomol. Chem.***, 18, 6594-6597 (2020).  
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- 3) Palladium on Carbon-Catalyzed Oxidative Transformation of Benzylic Ethers  
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- 4) One-pot Heteroarene Synthesis Based on Ruthenium-on-Carbon-Catalyzed Oxidative Aromatization using Oxygen  
Y. Yamamoto, Y. Yamada, H. Sajiki,\* Y. Sawama\*  
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- 5) Improvement Parameters of Hydrogen Generation from Water under Stainless-steel-Mediated Ball Milling Conditions  
M. Itoh, Y. Sawama,\* M. Niikawa, K. Ban, T. Kawajiri, H. Sajiki\*  
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- 6) Quantitative Mechanochemical Methanation of CO<sub>2</sub> with H<sub>2</sub>O in a Stainless Steel Ball Mill  
Y. Sawama,\* M. Niikawa, K. Ban, K. Park, S. Aibara, M. Itoh, H. Sajiki\*  
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- 7) Arylation of Indoles Using Cyclohexanones Dually-Catalyzed by Niobic Acid and Palladium-on-Carbons  
K. Ban, Y. Yamamoto, H. Sajiki,\* Y. Sawama\*  
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- 8) Practical and reliable synthesis of 2',3',5',5''-tetradeuterated uridine derivatives  
N. Miyamoto, H. Ohno, Y. Kitamura, K. Park, Y. Sawama, H. Sajiki, Y. Kitade\*  
***Nucleosides, Nucleotides & Nucleic Acids***, 39, 236-244 (2020).
- 9) Preparation of N<sub>2</sub>-Ethyl-2'-deoxyguanosine-d<sub>4</sub> as an Internal Standard for the Electrospray Ionization-Tandem Mass Spectrometric (ESI-MS/MS) Determination of DNA Damage by Acetaldehyde  
Y. Esaka,\* H. Aruga, S. Kunishima, T. Yamamoto, H. Murakami, Y. Sawama, H. Sajiki H, B. Uno  
***Anal., Sci.***, 36, 877-880 (2020).
- 10) N-Heterocyclic carbene-catalyzed deuteration of aldehydes in D<sub>2</sub>O  
Y. Sawama,\* Y. Miki, H. Sajiki\*  
***Synlett***, 31, 699-702 (2020).
- 11) Facile Hydrogenative Deprotection of N-Benzyl Groups Using a Mixed Catalyst of Palladium and Niobic Acid on Carbon  
Y. Yamamoto, E. Shimizu, K. Ban, Y. Wada, T. Mizusaki, M. Yoshimura, Y. Takagi, Y. Sawama,\* H. Sajiki\*  
***ACS Omega***, 5, 2699–2709 (2020).
- 12) PLATINUM ON CARBON-CATALYZED AND CHEMOSELECTIVE AQUEOUS OXYGEN OXIDATION OF AROMATIC ACETALS TO BENZOIC ACIDS  
N. Yasukawa, T. Matsuda, E. Shimizu, H. Sajiki,\* Y. Sawama\*  
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- 14) Birch-Type Reduction of Arenes in 2-Propanol Catalyzed by Zero-Valent Iron and Platinum on Carbon  
Y. Sawama,\* K. Ban, K. Akutsu-Suyama, H. Nakata, M. Mori, T. Yamada, Ta. Kawajiri, N. Yasukawa, K. Park, Y. Monguchi, Y. Takagi, M. Yoshimura, H. Sajiki\*  
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- 15) Acetal Elimination Reaction Accompanied with Regioselective Ring Opening of 1,4-Bisacetal-1,4-epoxy-1,4-dihydronaphthalenes

- Y. Sawama,\* T. Kawajiri, Y. Yamamoto, Y. Shishido, R. Goto, H. Sajiki\*  
*Heterocycles*, (Special Issue Vol. 99 in honor of Professor Tohru Fukuyama on 70th Birthday ), 99, 126-133 (2019).
- 16) H-D Exchange Deuteration of Arenes at Room Temperature  
Y. Sawama,\* A. Nakano, T. Matsuda, T. Kawajiri, T. Yamada, H. Sajiki\*  
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- 17) Chemoselective Nucleophilic Functionalizations of Aromatic Aldehydes and Acetals via Pyridinium Salt Intermediates  
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- 18) Microwave-mediated site-selective heating of spherical-carbon-bead-supported platinum for the continuous, efficient catalytic dehydrogenative aromatization of saturated cyclic hydrocarbons  
T. Ichikawa, T. Matsuo, T. Tachikawa, T. Yamada, T. Yoshimura, M. Yoshimura, Y. Takagi, Y. Sawama, J. Sugiyama, Y. Monguchi, H. Sajiki\*  
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- 19) Development of Titanium Dioxide-Supported Pd Catalysts for Ligand-Free Suzuki-Miyaura Coupling of Aryl Chlorides  
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- 20) Application of Thiol-Modified Dual-Pore Silica Beads as Practical Scavenger of Leached Palladium Catalyst in C-C Coupling Reaction  
T. Yamada, T. Matsuo, A. Ogawa, T. Ichikawa, Y. Kobayashi, H. Masuda, R. Miyamoto, H. Bai, K. Meguro, Y. Sawama, Y. Monguchi, H. Sajiki\*  
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- 21) Polyethyleneimine-modified Polymer as an Efficient Palladium Scavenger and Effective Catalyst Support for a Functional Heterogeneous Palladium Catalyst  
T. Yamada, Y. Kobayashi, N. Ito, T. Ichikawa, K. Park, K. Kunishima, S. Ueda, M. Mizuno, T. Adachi, Y. Sawama, Y. Monguchi, H. Sajiki\*  
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- 22) Microwave-Mediated Continuous Hydrogen Abstraction Reaction from 2-PrOH Catalyzed by Platinum on Carbon Bead  
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- 23) Copper-catalyzed pyrrole synthesis from 3,6-dihydro-1,2-oxazines  
N. Yasukawa, M. Kuwata, T. Imai, Y. Monguchi, H. Sajiki,\* Y. Sawama\*  
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- 25) Stainless Steel-Mediated Hydrogen Generation from Alkanes and Diethyl Ether and Its Application for Arene Reduction  
Y. Sawama,\* N. Yasukawa, K. Ban, R. Goto, M. Niikawa, Y. Monguchi, M. Itoh, H. Sajiki\*  
*Org. Lett.*, 20, 2892-2896 (2018).
- 26) Highly-functionalized arene synthesis based on palladium on carbon-catalyzed aqueous dehydrogenation of cyclohexadienes and cyclohexenes  
N. Yasukawa, H. Yokoyama, M. Masuda, Y. Monguchi, H. Sajiki,\* Y. Sawama\*  
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- 27) Aromatic Aldehyde-Selective Aldol Addition with Aldehyde-Derived Silyl Enol Ethers  
T. Kawajiri, R. Ohta, H. Fujioka, H. Sajiki,\* Y. Sawama\*  
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- 28) Organocatalytic Nitroaldol Reaction Associated with Deuterium-Labeling  
T. Yamada, M. Kuwata, . Takakura, Y. Monguchi, H. Sajiki,\* Y. Sawama\*  
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S. Asai, K. Ban, Y. Monguchi, H. Sajiki,\* Y. Sawama\*  
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- 30) A practical method for heterogeneously-catalyzed Mizoroki–Heck reaction: flow system with adjustment of microwave resonance as an energy source  
T. Ichikawa, M. Mizuno, S. Ueda, N. Ohneda, H. Odajima, Y. Sawama, Y. Monguchi,\* H. Sajiki\*  
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- 31) Selective Synthesis of Primary Amines from Nitriles under Hydrogenation Conditions  
M. Yoshimura,\* A. Komatsu, M. Niimura, Y. Takagi, T. Takahashi, S. Ueda, T. Ichikawa, Y. Kobayashi, H. Okami, T. Hattori, Y. Sawama, Y. Monguchi,\* H. Sajiki\*  
*Adv. Synth. Catal.*, 360, 1726-1732 (2018).
- 32) Heterogeneous Copper-Catalyzed Synthesis of *S*-Arylated 2-Aminothiophenols via Ring Opening of Benzothiazoles and C-S Coupling Using Aryl Halides  
T. Ichikawa, T. Matsuo, T. Tachikawa, Y. Sawama, Y. Monguchi, H. Sajiki\*  
*Heterocycles* (Special Issue Vol. 97 in honor of Professor Kiyoshi Tomioka on 70th Birthday ), 97, 793-805 (2018).
- 33) Palladium on Carbon-Catalyzed Benzylic Methoxylation for Synthesis of Mixed Acetals and Orthoesters  
N. Yasukawa, T. Kanie, M. Kuwata, Y. Monguchi, H. Sajiki,\* Y. Sawama\*  
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- 34) Cyclic Ether Synthesis from Diols using Trimethyl Phosphate  
S. Asai, M. Kato, Y. Monguchi, H. Sajiki,\* Y. Sawama\*  
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- 35) Phosphate-Mediated Enyne Synthesis from Allenols  
S. Asai, M. Kato, Y. Monguchi, H. Sajiki,\* Y. Sawama\*  
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- 36) Heterogeneous one-pot carbonylation and Mizoroki-Heck reactions in a parallel manner following the cleavage of cinnamaldehyde derivatives  
T. Hattori, S. Ueda, R. Takakura, Y. Sawama, Y. Monguchi, H. Sajiki\*  
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- 37) Ruthenium on carbon catalysed carbon-carbon cleavage of aryl alkyl ketones and aliphatic aldehydes in aqueous media  
T. Hattori, H. Okami, T. Ichikawa, S. Mori, Y. Sawama, Y. Monguchi, H. Sajiki\*  
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- 38) Catalyst-dependent selective hydrogenation of nitriles: Selective synthesis of tertiary and secondary amines  
Y. Monguchi, M. Mizuno, T. Ichikawa, Y. Fujita, E. Murakami, T. Hattori, T. Maegawa, Y. Sawama, H. Sajiki\*  
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- 39) Development of a unique heterogeneous palladium catalyst for Suzuki-Miyaura reaction using (hetero)aryl chlorides and chemoselective hydrogenation  
T. Ichikawa, M. Netsu, M. Mizuno, T. Mizusaki, Y. Takagi, Y. Sawama, Y. Monguchi, H. Sajiki\*  
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- 40) Amphiphilic monolith-supported palladium catalysts for chemoselective hydrogenation and cross-coupling reactions  
Y. Monguchi,\* F. Wakayama, S. Ueda, R. Ito, H. Takada, H. Inoue, A. Nakamura, Y. Sawama, H. Sajiki\*  
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- 41) Site-Selective Iron(III) Chloride-Catalyzed Arylation of 4-Aryl-4-methoxy-2,5-cyclohexadienones for the Synthesis of Polyarylated Phenols  
Y. Sawama,\* M. Masuda, R. Nakatani, H. Yokoyama, Y. Monguchi, T. Dohi, Y. Kita, H. Sajiki\*  
*Adv. Synth. Catal.*, 358, 3683-3687 (2016).  
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- 42) Additional Nucleophile-Free FeCl<sub>3</sub>-Catalyzed Green Deprotection of 2,4-Dimethoxyphenylmethyl-Protected Alcohols and Carboxylic Acids  
Y. Sawama,\* M. Masuda, A. Honda, H. Yokoyama, K. Park, N. Yasukawa, Y. Monguchi, H. Sajiki\*  
*Chem. Pharm. Bull.*, 64, 778 (2016).
- 43) Palladium on Carbon-Catalyzed Chemoselective Oxygen Oxidation of Aromatic Acetals  
N. Yasukawa, S. Asai, M. Kato, Y. Monguchi, H. Sajiki,\* Y. Sawama\*  
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- 44) Disiloxane Synthesis Based on Silicon-Hydrogen Bond Activation Using Gold and Platinum on Carbon in Water or Heavy Water  
Y. Sawama,\* M. Masuda, N. Yasukawa, R. Nakatani, S. Nishimura, K. Shibata, T. Yamada, Y. Monguchi, H. Suzuka, Y. Takagi, H. Sajiki\*  
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- 45) Mild and Direct Multiple Deuterium-Labeling of Saturated Fatty Acids  
T. Yamada, K. Park, N. Yasukawa, K. Morita, Y. Monguchi, Y. Sawama,\* H. Sajiki\*  
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- 46) Palladium on Carbon-Catalyzed C-H Amination for Synthesis of Carbazoles and its Mechanistic Study  
Y. Monguchi,\* H. Okami, T. Ichikawa, K. Nozaki, T. Maejima, Y. Oumi, Y. Sawama, H. Sajiki\*  
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- 47) Palladium-Catalyzed C-H Monoalkoxylation of  $\alpha,\beta$ -Unsaturated Carbonyl Compounds  
Y. Monguchi,\* K. Kunishima, T. Hattori, T. Takahashi, Y. Shishido, Y. Sawama, H. Sajiki\*  
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- 48) Switching the cleavage sites in palladium on carbon-catalyzed carbon-carbon bond disconnection  
T. Hattori,\* R. Takakura, T. Ichikawa, Y. Sawama, Y. Monguchi, H. Sajiki\*  
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- 49) Gold-Catalyzed Benzylic Azidation of Phthalans and Isochromans and Subsequent  $\text{FeCl}_3$ -Catalyzed Nucleophilic Substitutions  
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- 50)  $\text{FeCl}_3$ -Catalyzed Self-Cleaving Deprotection of Methoxyphenylmethyl-Protected Alcohols  
Y. Sawama,\* M. Masuda S. Asai, R. Goto, S. Nagata, S. Nishimura, Y. Monguchi, H. Sajiki\*  
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- 51) Biaryl Synthesis by Ring-Opening Friedel-Crafts Arylation of 1,4-Epoxy-1,4-dihydronaphthalenes Catalyzed by Iron Trichloride  
Y. Sawama,\* S. Asai, T. Kawajiri, Y. Monguchi, H. Sajiki\*  
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- 52) Biarylmethane and Fused Heterocyclic Arene Synthesis via in Situ Generated *o*- and/or *p*-Naphthoquinone Methides  
Y. Sawama,\* T. Kawajiri, S. Asai, N. Yasukawa, Y. Shishido, Y. Monguchi, H. Sajiki\*  
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- 53) Stainless-Steel-Mediated Quantitative Hydrogen Generation from Water under Ball Milling Conditions  
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- 54) Stainless-Steel Ball Milling Method for Hydro-/Deutero-genation using  $\text{H}_2\text{O}/\text{D}_2\text{O}$  as a Hydrogen/Deuterium Source

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- 55) Palladium on Carbon-Catalyzed Aqueous Transformation of Primary Alcohols to Carboxylic Acids Based on Dehydrogenation under Mildly Reduced Pressure  
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- 56) Hydrogen Self-Sufficient Arene Reduction to Cyclohexane Derivatives Using a Combination of Platinum on Carbon and 2-Propanol  
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- 57) Multiple Deuteration of Alkanes Synergistically Catalyzed by Platinum and Rhodium on Carbon as a Mixed Catalytic System  
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- 58) Mild Deuteration Method of Terminal Alkynes in Heavy Water Using Reusable Basic Resin  
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- 59) Palladium on Carbon-Catalyzed Suzuki-Miyaura Coupling Reaction Using an Efficient and Continuous Flow System  
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- 60) Practical remediation of the PCB-contaminated soils  
A. Ido, M. Niikawa, S. Ishihara, Y. Sawama, T. Nakanishi, Y. Monguchi, H. Sajiki, H. Nagase\*  
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- 61) Osmium on Chelate Resin: Nonvolatile Catalyst for the Synthesis of Diols from Alkenes  
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- 63) Unique Chemoselective Hydrogenation Using Palladium Catalyst Immobilized on Ceramic  
Y. Monguchi, T. Marumoto, T. Ichikawa, Y. Miyake, Y. Nagae, M. Yoshida, Y. Oumi, Y. Sawama, H. Sajiki\*  
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Y. Monguchi, T. Ichikawa, M. Netsu, T. Hattori, T. Mizusaki, Y. Sawama, H. Sajiki\*  
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- 66) Effect of sodium acetate in atom transfer radical addition of polyhaloalkanes to olefins  
Y. Sawama,\* R. Nakatani, T. Imanishi, Y. Fujiwara, Y. Monguchi, H. Sajiki\*  
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- 67) Efficient Partial Hydrogenation of Trichloromethyl to *gem*-Dichloromethyl Groups in Platinum on Carbon-Catalyzed System  
Y. Sawama,\* T. Imanishi, R. Nakatani, Y. Fujiwara, Y. Monguchi, H. Sajiki\*  
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- 68) Rhodium on Carbon-Catalyzed Hydrogen Scavenger- and Oxidant-free Dehydrogenation of Alcohols in Aqueous Media  
Y. Sawama,\* K. Morita, T. Yamada, S. Nagata, Y. Yabe, Y. Monguchi, H. Sajiki\*  
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- 73) Palladium on Carbon-Catalyzed One-Pot *N*-Arylindole Synthesis: Intramolecular Aromatic Amination, Aromatization, and Intermolecular Aromatic Amination  
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- 74) Efficient Generation of *ortho*-Naphthoquinone Methides from 1,4-Epoxy-1,4-dihydronaphthalenes and Their Annulation with Allyl Silanes  
Y. Sawama,\* Y. Shishido, T. Yanase, K. Kawamoto, R. Goto, Y. Monguchi, Y. Kita, H. Sajiki\*  
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- 75) Iron-Catalyzed Ring-Opening Azidation and Allylation of *O*-Heterocycles  
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- 76) Lewis Acid-Catalyzed Ring-Opening Functionalizations of 1,4-Epoxy-1,4-dihydronaphthalenes  
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- 77) Site-selective Deuterated-Alkene Synthesis Using Palladium on Boron Nitride  
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