

Publication List of Prof. Takayoshi Arai [2023/07/12]

1. Tajima, R.; Saito, T.; Arai, T. Asymmetric *para*-Selective aza-Friedel–Crafts Reaction of Phenols Catalyzed by Bulky PyBidine-Ni(OAc)₂. *ACS Catal.* **2023**, *13*, 9495-9501. [DOI: [10.1021/acscatal.3c01961](https://doi.org/10.1021/acscatal.3c01961)]
2. Yokota, T.; Masu, H.; Arai, T. Asymmetric Friedel–Crafts-Type Reaction of 2-Vinylindoles to *N*-Boc Imines Using a Chiral Imidazolidine-Containing NCN-Pincer Pd Catalyst. *J. Org. Chem.* **2023**, *88*, 7872-7881. [DOI: [10.1021/acs.joc.2c02911](https://doi.org/10.1021/acs.joc.2c02911)]
3. Iida, K.; Suzuki, N.; Sasaki, A.; Ishida S.; Arai, T. Development of a novel light-up probe for detection of G-quadruplexes in stress granules. *Sci. Rep.* **2022**, *12*, 12892. [DOI: [10.1038/s41598-022-17230-y](https://doi.org/10.1038/s41598-022-17230-y)]
4. Suzuki, T. K.; Yamanaka, M.; Arai, T. Intermolecular Catalytic Asymmetric Iodoetherification of Unfunctionalized Alkenes. *Org. Lett.* **2022**, *24*, 3872-3877. [DOI: [10.1021/acs.orglett.2c01490](https://doi.org/10.1021/acs.orglett.2c01490)]
5. Ogino, E.; Kuwano, S.; Arai, T. Chiral Aminomethylbinaphthol-Catalyzed Diastereo- and Enantioselective Epoxidation of Trisubstituted Acrylonitriles. *Adv. Synth. Catal.* **2022**, *364*, 1503-1506. [DOI: [10.1002/adsc.202200036](https://doi.org/10.1002/adsc.202200036)]
6. Kuwano, S.; Ogino, E.; Arai, T.* Enantio- and diastereoselective double Mannich reaction of malononitrile with *N*-Boc imines using quinine-derived bifunctional organoiodine catalyst. *Org. Biomol. Chem.* **2021**, *19*, 6969-6973. [DOI: [10.1039/D1OB00796C](https://doi.org/10.1039/D1OB00796C)]
7. Nishida, Y.; Suzuki, T.; Takagi, Y.; Amma, E.; Tajima, R.; Kuwano, S.; Arai, T.* Hypervalent Cyclic Dibenzoiodolium Salt as a Halogen-Bond-Donor Catalyst for the [4+2] Cycloaddition of 2-Alkenylindoles. *ChemPlusChem* **2021**, *86*, 741-744. [DOI: [10.1002/cplu.202100089](https://doi.org/10.1002/cplu.202100089)]
8. Ogino, E.; Nakamura, A.; Kuwano, S.; Arai, T.* Chiral C₂-Symmetric Aminomethylbinaphthol as Synergistic Catalyst for Asymmetric Epoxidation of Alkylidenemalononitriles: Easy Access to Chiral Spirooxindoles. *Org. Lett.* **2021**, *23*, 1980-1985. [DOI: [10.1021/acs.orglett.0c04245](https://doi.org/10.1021/acs.orglett.0c04245)]
9. Ma, J.; Suzuki, T.; Kuwano, S.; Arai, T.* Catalytic Asymmetric Chlorination of β -Ketoesters Using *N*-PFB-PyBidine-Zn(OAc)₂. *Catalysts*, **2020**, *10*, 1177. [DOI: [10.3390/catal10101177](https://doi.org/10.3390/catal10101177)]
10. Nakamura, A.; Kuwano, S.; Sun, J.; Araseki, K.; Ogino, E.; Arai, T.* Chiral Dinuclear Benzyliminobinaphthoxy-Pd Catalyst for Asymmetric Mannich Reaction of Aldimines and Isatin-derived Ketimines with Alkylmalononitriles. *Adv. Synth. Catal.* **2020**, *362*, 3105-3109. [DOI: [10.1002/adsc.202000447](https://doi.org/10.1002/adsc.202000447)]
11. Suzuki, T.; Kuwano, S.; Arai, T.* Non-bonding Electron Pair versus π -Electrons in Solution Phase Halogen Bond Catalysis: Povarov Reaction of 2-Vinylindoles and Imines. *Adv. Synth. Catal.* **2020**, *362*, 3208-3212. [DOI: [10.1002/adsc.202000494](https://doi.org/10.1002/adsc.202000494)]

12. Arai, T.*; Horigane, K.; Suzuki, T. K.; Itoh, R.; Yamanaka, M. Catalytic Asymmetric Iodoesterification of Simple Alkenes. *Angew. Chem. Int. Ed.* **2020**, *59*, 12680-12683. [DOI: [10.1002/anie.202003886](https://doi.org/10.1002/anie.202003886)]
13. Kuwano, S.; Nishida, Y.; Suzuki, T.; Arai, T.* Catalytic Asymmetric Mannich-Type Reaction of Malononitrile with N-Boc α -Ketiminoesters Using Chiral Organic Base Catalyst with Halogen Bond Donor Functionality. *Adv. Synth. Catal.* **2020**, *362*, 1674-1678. [DOI: [10.1002/adsc.202000092](https://doi.org/10.1002/adsc.202000092)]
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26. Seira, N.; Yanagisawa, N.; Suganami, A.; Honda, T.; Wasai, M.; Regan, J. W.; Fukushima, K.; Yamaguchi, N.; Tamura, Y.; [Arai, T.](#); Murayama, T.; Fujino, H.* Anti-cancer Effects of MW-03, a Novel Indole Compound, by Inducing 15-Hydroxyprostaglandin Dehydrogenase and Cellular Growth Inhibition in the LS174T Human Colon Cancer Cell Line. *Biol. Pharm. Bull.* **2017**, *40*, 1806-1812.
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