Publication list

原著論文

1. Satoru Kitamura, Mika Sakai,* Shigehiro Yamaguchi*
   "Temperature-Responsive Near-Infrared Emission Enabled by Reversible π-Umpolung with an Alkenyl-Strapped Diarylboryl Unit"
   Angew. Chem. Int. Ed. **2026**, *65*, e23338.

2. Izumi Hattori, Masaya Hagai, Masato Ito, Mika Sakai, Hiroki Narita, Kazuhiro J. Fujimoto, Takeshi Yanai, Shigehiro Yamaguchi
   "In-Silico Screening and Experimental Verification of Near-Infrared-Emissive Two-Boron-Doped Polycyclic Aromatic Hydrocarbons"
   Angew. Chem. Int. Ed. **2024**, *63*, e202403829. **Selected as a Hot paper and Back Cover**

3. Mika Sakai, Masayoshi Mori, Masato Hirai, Naoki Ando, Shigehiro Yamaguchi
   "Planarized Phenyldithienylboranes: Effects of the Bridging Moieties and π-Extension on the Photophysical Properties and Lewis Acidity"
   Chem. Eur. J. **2022**, *28*, e202200728. **Selected as a Very Important Paper, Highlighted in SYNFACTS, Most widely read papers in 2022 (Top 10%)**

4. Jaehyun Bae, Mika Sakai, Youichi Tsuchiya, Naoki Ando, Xian-Kai Chen, Thanh Ba Nguyen, Chin-Yiu Chan, Yi-Ting Lee, Morgan Auffray, Hajime Nakanotani, Shigehiro Yamaguchi, Chihaya Adachi
   "Multiple Resonance Type Thermally Activated Delayed Fluorescence by Dibenzo[1,4]azaborine Derivatives"
   Front. Chem. **2022**, 10:990918.

5. Masato Ito, Mika Sakai, Naoki Ando, Shigehiro Yamaguchi
   "Electron-Deficient Heteroacenes that Contain Two Boron Atoms: Near-Infrared Fluorescence Based on a Push–Pull Effect"
   Angew. Chem. Int. Ed. **2021**, *60*, 21853–21859.

6. Cai You, Mika Sakai, Constantin G. Daniliuc, Klaus Bergander, Shigehiro Yamaguchi, Armido Studer
   "Regio- and Stereoselective 1,2-Carboboration of Ynamides with Aryldichloroboranes"
   Angew. Chem. Int. Ed. **2021**, *60*, 21697–21701. **国際共同研究**

7. Steffen Greßies, Masato Ito, Mika Sakai, Hiroshi Osaki, Ju Hyun Kim, Tobias Gensch, Constantin Daniliuc, Naoki Ando, Shigehiro Yamaguchi, Frank Glorius
   "Twofold C–H Activation Enables Synthesis of a Diazacoronene-type Fluorophore with Near Infrared Emission Through Isosteric Replacement"
   Chem. Eur. J. **2021**, *27*, 2753–2759. **国際共同研究**

8. Planarized *B*,*N*-Phenylated Dibenzoazaborine with a Carbazole Substructure: Electronic Impact of the Structural Constraint
   Mikinori Ando, Mika Sakai, Naoki Ando, Masato Hirai, Shigehiro Yamaguchi
   Org. Biomol. Chem. **2019**, *17*, 5500–5504.

解説、総説

1. Masato Hirai, Naoki Tanaka, Mika Sakai, Shigehiro Yamaguchi
   "Structurally Constrained Boron-, Nitrogen-, Silicon-, and Phosphorus-Centered Polycyclic π-Conjugated

Systems”
Chem. Rev. **2019**, *119*, 8291–8331.

招待講演

1. ◯坂井美佳
“複数の典型元素の相乗的活用による赤－近赤外発光性π電子系の創製”
瀬戸内π電子系研究会~第 18 回有機π電子系ポストシンポジウム~, 愛媛, 2025 年 12 月