

Po-Jung Huang

黄 柏融 (コウ ブォロン)

Address: 2-12-1 Ookayama, Meguro-ku, Tokyo 152-8551 Japan

Email: huang.p.af@m.titech.ac.jp

Education

Tohoku University, Japan

Ph. D, Chemistry, Apr. 2018-Mar. 2021 Supervisor: Prof. Hitoshi Miyasaka

Thesis title "Opto-electronic and magnetic characteristics induced by noncentrosymmetry in two-dimensional organic-inorganic hybrid perovskites"

Tohoku University, Japan

Master, Chemistry, Apr. 2016-Mar. 2018 Supervisor: Prof. Hitoshi Miyasaka

Thesis title "Experimental and theoretical studies on frontier orbitals of carboxylate-bridged dichromium(II,II) complexes"

National Cheng Kung University, Taiwan

BS, Chemistry, Sep. 2011-Jun. 2015 Supervisor: Prof. Hui-Lien Tsai

National Wu-Ling Senior High School, Taiwan

Sep. 2008-Jun. 2011.

Experience

Assistant professor, Tokyo Institute of Technology, Japan, Apr. 2023-

Postdoctoral scholar, Northwestern University, USA, Feb. 2022-Mar. 2023

Research assistant, Tohoku University, Japan, Apr. 2021-Jan. 2022

Research assistant, National Cheng Kung University, Taiwan, Oct. 2015-Feb. 2016

Awards and Fellowships

- 1) Tohoku University Department of Chemistry Award (東北大学化学専攻賞), 2021.
- 2) Best Student Presentation Awards at the Annual Meeting of the Japan Society for Molecular Science (分子科学会学生優秀講演賞), 2020.
- 3) Best Poster Awards at the annual Meeting of Japan Society for Molecular Science (分子科学会優秀ポスター賞), 2019.
- 4) Research Fellowship for Young Scientists DC1 of Japan Society for the Promotion of Science (日本学術振興会特別研究員 DC1), 2018-2021.
- 5) Long-Term Scholarship of Japan-Taiwan Exchange Association (日本台湾交流協会奨学金), 2016-2018.
- 6) Research Creativity Award from the Ministry of Science of Technology (Taiwan), 2015.
- 7) Honorary member of the Society by National Cheng Kung University and the Phi Tau Phi Scholastic Honor Society of the Republic of China, 2015.

Publications

- 1) Kouji Taniguchi, **Po-Jung Huang**, Hajime Sagayama, Ryoji Kiyonagi, Kazuki Ohishi, Shunsuke Kitou, Yuiga Nakamura, Hitoshi Miyasaka, Tuning of spin-orbit coupling in chiral molecule-incorporated two-dimensional organic-inorganic hybrid perovskite copper halides with ferromagnetic exchange interactions. *Phys. Rev. Mater.* **2024**, *8*, 024409.
- 2) Kouji Taniguchi, **Po-Jung Huang**, Shojiro Kimura, Hitoshi Miyasaka, Chiral weak ferromagnets formed in one-dimensional organic-inorganic hybrid manganese chloride hydrates. *Dalton Trans.* **2022**, *51*, 17030–17034.
- 3) **Po-Jung Huang**, Kouji Taniguchi, Hitoshi Miyasaka, Crucial contribution of polarity for the bulk photovoltaic effect in a series of noncentrosymmetric two-dimensional organic-inorganic hybrid perovskites. *Chem. Mater.* **2022**, *34*, 4428–4436.
- 4) Kouji Taniguchi, Masaki Nishio, Nobuyuki Abe, **Po-Jung Huang**, Shojiro Kimura, Taka-hisa Arima, Hitoshi Miyasaka, Magneto-electric directional anisotropy in polar soft ferromagnets of two-dimensional organic-inorganic hybrid perovskites. *Angew. Chem. Int. Ed.* **2021**, *60*, 14350–14354.
- 5) **Po-Jung Huang**, Kouji Taniguchi, Masato Shigefuji, Takatsugu Kobayashi, Masakazu Matsubara, Takao Sasagawa, Hiroyasu Sato, Hitoshi Miyasaka, Chirality-dependent circular photogalvanic effect in enantiomorphic two-dimensional organic-inorganic hybrid perovskites. *Adv. Mater.* **2021**, *33*, 2008611.
- 6) **Po-Jung Huang**, Hitoshi Miyasaka, Canting angle dependence of single-chain magnet behaviour in chirality-introduced antiferromagnetic chains of acetate-bridged manganese(III) salen-type complexes. *Dalton Trans.* **2020**, *49*, 16970–16978.
- 7) **Po-Jung Huang**, Kouji Taniguchi, Hitoshi Miyasaka, Bulk photovoltaic effect in a pair of chiral-polar layered perovskite-type lead iodides altered by chirality of organic cations. *J. Am. Chem. Soc.* **2019**, *141*, 14520–14523.
- 8) Kouji Taniguchi, Masaki Nishio, Shuhei Kishiue, **Po-Jung Huang**, Shojiro Kimura, Hitoshi Miyasaka, Strong magnetochiral dichroism for visible light emission in a rationally designed paramagnetic enantiopure molecule. *Phys. Rev. Mater.* **2019**, *3*, 045202(1–8).
- 9) **Po-Jung Huang**, Yoshiki Natori, Yasutaka Kitagawa, Yoshihiro Sekine, Wataru Kosaka, Hitoshi Miyasaka, Strong electronic influence of equatorial ligands on frontier orbitals in paddlewheel dichromium(II,II) complexes. *Dalton Trans.* **2019**, *48*, 908–914.
- 10) **Po-Jung Huang**, Yoshiki Natori, Yasutaka Kitagawa, Yoshihiro Sekine, Wataru Kosaka, Hitoshi Miyasaka, One-dimensional chains of paddlewheel-type dichromium(II,II) tetraacetate complexes: study of electronic structure influenced by σ - and π -donation of axial linkers. *Inorg. Chem.* **2018**, *57*, 5371–5379.
- 11) Po-Yeng Feng, Chen-I Yang, **Po-Jung Huang**, Hui-Lien Tsai, A helical salicyladoxime-based manganese triangle chain with single-molecule magnet behavior. *Inorg. Chem. Commun.* **2015**, *55*, 112–115.
- 12) Hung-Kai Feng, **Po-Jung Huang**, Hui-Lien Tsai, One-dimensional lanthanide coordination polymers: synthesis, structures, and single-ion magnetic behavior. *Dalton Trans.* **2015**, *44*, 3764–3772.

Books

- 1) Kouji Taniguchi, **Po-Jung Huang**, Hitoshi Miyasaka, Development of Single-Phase Photoelectric Materials without Hetero Interface: Photoelectric Conversion in Chiral Perovskite-Type Semiconductor, Clean Energy, JAPAN INDUSTRIAL PUBLISHING CO., LTD., **2020**, 29-2, 31-37.

Fundings

- 1) 公益財団法人豊田理化学研究所 2024 年度豊田理研スカラー
二次元有機無機ハイブリッドペロブスカイト材料における電気分極誘導スピン選択現象の開拓, **2024-2025**
- 2) 公益財団法人日揮・実吉奨学会 2023 年度研究助成金
酸化還元活性な有機分子界面の創出と非反転対称電子輸送の機能開拓, **2023-2025**
- 3) 公益財団法人住友財団 2023 年度基礎科学研究助成
キラル分子一二次元半導体ハイブリッド構造における非相対的光と電子物性の開発と制御, **2023-2024**
- 4) 日本学術振興会 科学研究費助成事業 特別研究員奨励費(DC1)
酸化還元活性な配位高分子における磁気・電子相関の交差制御, **2018-2021**