

**Chandu G Krishnan**

Institute of Chemical Reaction Design and Discovery (ICReDD)  
Hokkaido University, Japan.

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Nationality: India

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**Education:**

Integrated BS-MS (2014-2019): IISER Thiruvananthapuram, Kerala, India (Thesis Advisor: Dr. Ramesh Rasappan).

Ph.D. (2019-2022): Osaka University, Japan (Thesis Advisor: Prof. Hiroaki Sasai, Supervisors: Prof. Takayoshi Suzuki, Prof. Shinobu Takizawa)

**Research Experience:**

- 2023- present, post-doctoral fellow, Institute of Chemical Reaction Design and Discovery (ICReDD), Hokkaido University, Sapporo, Japan. 'Development of novel free-radical-mediated transformations guided by quantum mechanical calculations'. Supervisor: Prof. Tsuyoshi. Mita
- 2019- 2022: Asymmetric photoswitchable catalysis. Supervisor: Prof. Hiroaki Sasai, Prof. Shinobu Takizawa)
- March 2017-2019: Asymmetric transition metal catalyzed cross coupling reactions. Supervisor: Dr. Ramesh Rasappan, Department of Organic Chemistry, Indian Institute of Science Education and Research, Trivandrum, India)

**Honors and Awards**

- (2019-2022) MEXT Research Fellow, Osaka University, Japan (Advisor: Prof. Takayoshi Suzuki)
- Received the Student Excellence Presentation Award (oral presentation) at the 142nd Annual Meeting of the Pharmaceutical Society of Japan (Nagoya).
- Qualified Graduate Aptitude Test in Engineering (GATE 2019)
- (2014- 2019) Inspire Fellow (Second most prestigious award for undergraduate students in India), IISER TVM, Kerala, India. (Advisor: Dr. Ramesh Rasappan)

**Publications:**

1. Light-controlled pKa Value of Chiral Brønsted Acid Catalysts in Enantioselective Aza-Friedel-Crafts Reaction.

**Chandu G.Krishnan**, Masaru.Kondo, Osamu. Yasuda, Duona. Fan, Kento. Nakamura, Y. Wakabayashi, Hiroaki. Sasai, Shinobu. Takizawa.

*Chemical. Communications.*, **2023**, DOI:10.1039/D3CC02719H.

2. Photoswitchable Chiral Organocatalysts: Photocontrol of Enantioselective Reactions. Masaru Kondo, Kento Nakamura, **Chandu G. Krishnan**, Hiroaki Sasai, Shinobu Takizawa, *Chem. Rec.*, **2023**, e202300040, DOI: 10.1002/tcr.202300040.
3. Photoswitchable Chiral Cation-Binding Catalyst: Photocontrol of Catalytic Activity on Enantioselective Amino Acid Synthesis. **Chandu G. Krishnan**, Masaru Kondo, Kento Nakamura, Hiroaki Sasai, and Shinobu Takizawa. *Org. Lett.*, **2022**, 24, 14, 2670–2674.
4. Photoswitchable Chiral Phase Transfer Catalyst”, Masaru Kondo, Kento Nakamura, **Chandu G. Krishnan**, Shinobu Takizawa, Hiroaki Sasai. *ACS Catal.*, **2021**, 11, 3, 1863–1867.
5. Azopyridine-based chiral oxazolines with rare-earth metals for photoswitchable catalysis. Masaru Kondo, Kento Nakamura, **Chandu G. Krishnan**, Shinobu Takizawa, Hiroaki Sasai. *Chemical Communications.*, **2021**, 57 (60), 7414-7417.
6. A Free-Radical Reduction and Cyclization of Alkyl Halides Mediated by FeCl<sub>2</sub>. Feba Thomas Pulikottil, Ramadevi Pilli, Vetrivelan Murugesan, **Chandu G. Krishnan**, Ramesh Rasappan. *ChemCatChem.*, **2019**, 11, 2438–2442.

### Conference contributions

#### International Conference

1. Molecular Chirality Asia 2020  
Title: Photoswitchable Chiral Phase Transfer Catalyst  
**Chandu G. Krishnan** (First author), Masaru Kondo, Kento Nakamura, Shinobu Takizawa, Tsukasa Abe, Hiroaki Sasai.
2. 10 th JACI 2021  
Title; Photoswitchable Chiral Cation Binding Catalyst.  
**Chandu G. Krishnan** (First author), Masaru Kondo, Kento Nakamura, Shinobu Takizawa, Tsukasa Abe, Hiroaki Sasai.
3. PSJ conference, Nagoya, Japan, 2022.  
142nd Annual Meeting of the Pharmaceutical Society of Japan (Nagoya).  
Title; Photoswitchable Chiral Cation Binding Catalyst.  
**Chandu G. Krishnan** (First author), Masaru Kondo, Kento Nakamura, Shinobu Takizawa, Tsukasa Abe, Hiroaki Sasai.