

# 南京大学有机化学前沿讲座

Find the Art of Chemistry!

题目: **Supramolecular Polymerization: Its Scope and Potentials**

报告人: **Dr. Daigo Miyajima**

日本理化所 (Riken)

地点: **仙林化学楼G211**

时间: **2019年3月15号 (星期五) 下午16:00**

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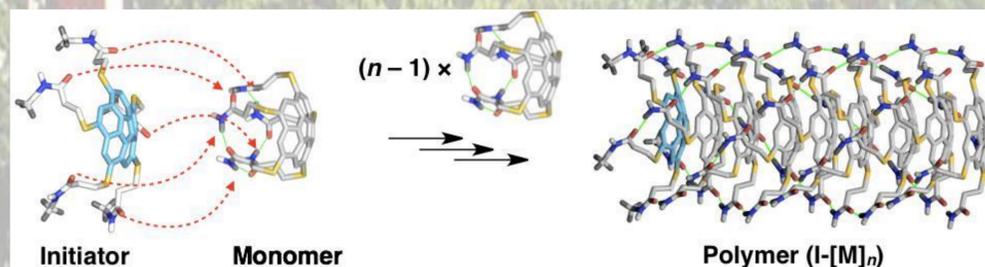
## Scientific Career:

Dr. Daigo Miyajima received his PhD under the supervision of Prof. Takuzo Aida in The University of Tokyo in 2013. During his PhD course, he joined the research group of Prof. Craig Hawker in UCSB for one-year to study polymer science. Just after finishing his PhD course, he started his academic career at Riken as a sub-group leader of Aida's Group. From the last October in 2018, he became an independent PI, a unit leader in RIKEN, and started his new research career.

Dr. Miyajima is interested in functional materials based on the concept of supramolecular chemistry. In particular, he is currently focusing on the exploration of supramolecular polymerization. He received various awards such as President's Award of the university of Tokyo (2013), Ikushi prize (2013), The Young Scientist's Prize by the minister of Education, Culture, Sports and Technology (2018), and so on.

## Lecture abstract:

Over the past decade, major progress in supramolecular polymerization has had a substantial effect on the design of functional soft materials. However, despite recent advances, most studies are still based on a preconceived notion that supramolecular polymerization follows a step-growth mechanism, which precludes control over chain length, sequence, and stereochemical structure. In 2015, we developed the first chain-growth type supramolecular polymerization, which allows us to control the length and stereochemistry of the supramolecular polymers. Furthermore, by elaborately designing monomer designs, we realized the thermally bisignate supramolecular polymerization in which supramolecular polymers are formed by both heating and cooling from the designated temperature. In this lecture, I will introduce on our research progresses on supramolecular polymerization and discuss the scope and potentials of supramolecular polymerization.



## Selected publications:

- (1) D. Miyajima and T. Aida, et al., *Science*. **2015**, 347, 6222, 646–651.
- (2) D. Miyajima and T. Aida, et al., *Nat. Mater.* **2016**, 15, 1084–1089.
- (3) D. Miyajima and T. Aida, et al., *Nature Chem.* **2017**, 9, 1133–1139.

欢迎参加!

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