

Sanghee Yang, Ph.D.

Assistant Professor at Inha University
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PROFESSIONAL CAREER

2023.03 - *present* **Assistant Professor**
Department of Chemistry, Inha University, South Korea

2021.03 - 2023.02 **Postdoctoral Researcher**
Department of Chemistry, University of Minnesota, MN

- Advisor: Prof. Timothy Lodge

2020.09 - 2021.03 **Postdoctoral Fellow**
Department of Chemistry, Seoul National University, South Korea

- Advisor: Prof. Tae-Lim Choi

EDUCATION

2014.03 - 2020.08 **Ph.D. in Chemistry**
Seoul National University, South Korea

- Advisor: Prof. Tae-Lim Choi
- Dissertation: Formation of Morphologically Tunable 1D and 2D Nanostructures from Fluorescent Conjugated Polymers by Crystallization-Driven Self-Assembly
- *The Best Ph.D. thesis award*
- *11th S-OIL Dissertation of the Year Award: The grand prize in the field of Chemistry*

2010.03 - 2014.02 **B.S. in Chemistry**
Seoul National University, South Korea

- *Summa Cum Laude*

PUBLICATIONS

[Research papers]

- [16] Dynamics and Equilibration Mechanisms in Block Copolymer Particles
Lodge, T.; Seitzinger, C.; Seeger, S.; **Yang, S.**; Gupta, S.; Dorfman, K., *ACS Polym. Au* **2022**, 2(6), 397 - 416.
- [15] Conformation dynamics of single polymer strands in solution
Bae, Y. †; Ha, M. Y. †; Bang, K.-T. †; **Yang, S.**; Kang, S. Y.; Kim, J.; Sung, J.; Kang, S.; Kang, D.; Lee, W. B.*; Choi, T.-L.*; Park, J.*, *Adv. Mater.*, **2022**, 34, 2202353.
- [14] Fabrication of Semiconducting Nanoribbons with Tunable Length and Width via Crystallization-Driven Self-Assembly of a Homopolymer Prepared by Cyclopolymerization Using Grubbs Catalyst
Choi, I.; Kang, S.-Y.; **Yang, S.**; Yun, N.; Choi, T.-L.*, *Macromolecules* **2022**, 55(9), 3484-3492.
- [13] Synchronous Preparation of Length-Controllable 1D Nanoparticles via Crystallization-Driven *in Situ* Nanoparticlization of Conjugated Polymers
Hwang, S.-H.†; Kang, S.-Y. †; **Yang, S.**; Lee, J.; Choi, T.-L.* , *J. Am. Chem. Soc.* **2022**, 144 (13), 5921-5929.
- [12] Semi-conducting 2D rectangles with Tunable Length via Uniaxial Living Crystallization-Driven Self-Assembly of Homopolymer
Yang, S.; Kang, S.-Y.; Choi, T.-L.* , *Nat. Commun.*, **2021**, 12, 2602.
- [11] The Influence of Grafting Density on Ultrasound-Induced Backbone and Arm Scission of Brush Copolymers
Peterson, G. I.; Noh, J.; Ha, M. Y.; **Yang, S.**; Lee, W. B.*; Choi, T.-L.* , *Macromolecules*, **2021**, 54, 4219-4226.
- [10] Direct Formation of Nano-Objects via *In Situ* Self-Assembly of Conjugated Polymers
Peterson, G. I.**; **Yang, S.**†; Choi, T.-L.* , *Polym. Chem.*, **2021**, 12, 1393-1403.
- [9] Polymers Producing Hydrogen
Peterson, G. I.; **Yang, S.**; Choi, T.-L.* , *Nat. Chem.*, **2020**, 12, 1093-1095.
• *News and Views* (Associated paper: *Nat. Chem.*, **2020**, 12, 1150-1156.)
- [8] Rapid Formation and Real-Time Observation of 1D Nanofibers with Tunable Lengths and Widths by Living Crystallization-Driven Self-Assembly
Yang, S.; Choi, T.-L.* , *Chem. Sci.*, **2020**, 11, 8416-8424.
• *Selected as a Chem Sci Pick*
• *2020 Chemical Science HOT Article Collection*

- [7] Morphologically tunable square and rectangular nanosheets of a simple conjugated homopolymer by changing solvents
Yang, S.; Kang, S.-Y.; Choi, T.-L.* , *J. Am. Chem. Soc.*, **2019**, *141*(48), 19138-19143.
- [6] Conformation of Tunable Nanocylinders: Up to Sixth-Generation Dendronized Polymers via Graft-Through Approach by ROMP
 Dutertre, F.; Bang, K.-T.; Vereroudakis, E.; Loppinet, B.; **Yang, S.;** Kang, S.-Y.; Fytas, G.; Choi, T.-L.* , *Macromolecules* **2019**, *52*, 3342-3350.
- [5] Synthesis of Functional Polyacetylenes via Cyclopolymerization of Diyne Monomers with Grubbs-type Catalysts
 Peterson, G. I.; **Yang, S.;** Choi, T.-L.* , *Acc. Chem. Res.*, **2019**, *52*(4), 994-1005.
- [4] Direct formation of large-area 2D nanosheets from fluorescent semiconducting homopolymer with orthorhombic crystalline orientation
Yang, S.; Shin, S.; Choi, I.; Lee, J.; Choi, T.-L.* , *J. Am. Chem. Soc.*, **2017**, *139*(8), 3082-3088.
- [3] Spontaneous evolution of nanostructures by light-driven growth of micelles obtained from in situ nanoparticlization of conjugated polymers
 Kang, E.-H.; **Yang, S.;** Yu, S. Y.; Kim, J.; Choi, T.-L.* , *J. Polym. Sci. Part A: Polym. Chem.*, **2017**, *55*, 3058-3066.
- *Special Issue in Honor of Professor Robert H. Grubbs*
- [2] Mechanistic investigations on the competition between the cyclopolymerization and [2+2+2] cycloaddition of 1,6-heptadiyne derivatives using second-generation grubbs catalysis
 Kang, E.-H.; Kang, C.; **Yang, S.;** Oks, E.; Choi, T.-L.* , *Macromolecules* **2016**, *49*, 6240-6250.
- [1] One-pot synthesis of polysulfane-bearing block copolymer nanoparticles with tunable size and refractive index
 Lim, J.; Cho, Y.; Kang, E.-H.; **Yang, S.;** Pyun, J.; Choi, T.-L.* , Char, K* , *Chem. Commun.*, **2016**, *52*, 2485-2488.

[Patents]

- [2] Choi, T.-L.* , **Yang, S.**, Kang, S.-Y. “2-Dimensional Polymer Nanosheets and Method for Morphologically Tunable Preparing the Same”, “2 차원 폴리머 나노시트 및 이의 형태 조절 가능한 제조 방법”, 출원번호: 10-2020-0002112, Jan 2021.
- [1] Char, K. Lim, J., Choi, T.-L.* Cho, Y., Kang, E.-H., **Yang, S.**, “Cyclic Polysulfane Polymers, Preparing Method of the Same, and Film Including the same”, “환상 폴리설피엔계 중합체, 이의 제조 방법, 및 이를 포함하는 필름”, 출원번호: 10-2016-0097236, July 2016.

AWARDS AND HONORS

- 2021** **11th Dissertation of the Year Award: The grand prize in the field of Chemistry**
The S-OIL Science Prodigy and Culture Foundation, December 2021.
- 2020** **Best Ph.D. Dissertation Award**
College of Natural Science, Seoul National University, August 2020.
- 2019** **Selected to Attend the GYSS 2019**
The Global Young Scientists Summit 2019, January 2019.
- 2018** **IPC2018 Young Scientist Poster Award**
The 12th SPSJ International Polymer Conference, December 2018.
- 2017** **Excellence In Graduate Polymer Research**
POLY division, 253rd American Chemical Society National Meeting, April 2017.
- 2016** **Royal Society of Chemistry Poster Prize**
Single Entity Electrochemistry: Faraday Discussion, IUPAC-PSK40, October 2016.
- 2014** **Outstanding Undergraduate Research Popularity Award**
Department of Chemistry, Seoul National University, February 2014.

CONFERENCE PRESENTATIONS

[Oral presentations]

Apr 18, 2019	123 rd KCS General Meeting and Exposition	Suwon, Korea
Apr 19, 2018	121 th KCS General Meeting and Exposition	Jeju, Korea
Apr 3, 2017	253 rd ACS National Meeting and Exposition	San Francisco, CA

[Poster presentations]

July 27, 2022	Polymer Physics Gordon Research Conference	South Hadley, MA
May 7, 2019	Frontiers in polymer science	Budapest, Hungary
Jan 22, 2019	Global Young Scientists Summit (GYSS) 2019	Singapore
Dec 6, 2018	12 th SPSJ International Polymer Conference (IPC 2018)	Hiroshima, Japan
Oct 6, 2016	IUPAC-PSK40	Jeju, Korea
Sep 7, 2015	4 th International Supramolecular System Symposium (ISSS)	Changchun, China