

Name: Keiji Numata



Appointment: Professor,
Lab for Biomaterial Chemistry,
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Team Leader (PI)
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Born: September 26, 1980 in Tokyo, Japan

Education: B.S., Polymer Chemistry, Tokyo Institute of Technology (2003)
M.S., Engineering, Tokyo Institute of Technology (2005)
Ph.D., Engineering, Tokyo Institute of Technology (2007)

Employment:

2006-2007	Japan Society for the Promotion of Science (JSPS) Research Fellow (DC), Tokyo Institute of Technology & Royal Institute of Technology, Sweden
2007-2008	JSPS Postdoctoral Fellow (PD), Tokyo Institute of Technology & RIKEN
2008-2010	JSPS Postdoctoral Fellow for Research Abroad, Tufts University, Department of Biomedical Engineering, USA.
2010-2012	Senior Scientist, Enzyme Research Team, RIKEN
2012-2020	Team Leader (PI), Enzyme Research Team/Biomacromolecules Research Team, RIKEN

	2020-present	Professor, Department of Material Chemistry, Graduate School of Engineering, Kyoto University
Concurrent positions:	2011-2019	Visiting Professor, Universiti Sains Malaysia
	2011-2013	Visiting Associate Professor, Shibaura Institute of Technology
	2014-2015	Part-time lecturer, Saitama University
	2014-present	Visiting Fellow, Spiber Inc.
	2014-2019	Project Leader, Impulsing Paradigm Change through Disruptive Technologies Program (ImpACT), Super High-Function Structural Proteins to Transform the Basic Materials Industry
	2015-2018	Co-supervisor for PhD program, Royal Institute of Technology (KTH)
	2016-2019	Team Leader, ImpACT Planned Serendipity
	2016-present	Visiting Associate Professor, Gunma University
	2016-present	Research Director, JST-ERATO Numata Organellar Reaction Cluster Project
	2019-present	Member, The Engineering Academy of Japan
	2020-present	Team Leader, Biomacromolecules Research Team, RIKEN Center for Sustainable Resource Science
	2020-present	Kyoto University L-INSIGHT Fellow (Program for the Development of Next-generation Leading Scientists with Global Insight (L-INSIGHT))

Honors and Awards:

1. Best Presentation Award of Master Theses of Department of Innovative and Engineered Materials (Doi Award), Tokyo Institute of Technology (2005).
2. Poster Award of Joint Meeting of the 1st Asian-Oceanian Conference on Green and Sustainable Chemistry and the 7th Annual Green and Sustainable Chemistry Symposium (2007).
3. Best Presentation Award of Ph. D. Theses of Department of Innovative and Engineered Materials (Doi Award), Tokyo Institute of Technology (2008).
4. Best Oral Presentation Award of Ph. D. Theses of Tokyo Young Polymer Scientists (2008).
5. Delegate for 59th Meeting of Nobel Laureates in Lindau dedicated to Chemistry

- (2009).
6. RIKEN Research Incentive Award (2012).
 7. Award for Encouragement of Research in Polymer Science; The Society of Polymer Science, Japan (2014)
 8. SPSJ Award for the Outstanding Paper in Polymer Journal 2013 sponsored by ZEON; The Society of Polymer Science, Japan (2014)
 9. Genomic Sciences Research Complex Tanabata Meeting 2014 Fellow (2014)
 10. Young Scientist Lectureship Award, The Society of Polymer Science, Japan (SPSJ), Kansai Regional Chapter (2015)
 11. Young Scientist Presentation Award, The Society of Polymer Science, Japan (SPSJ), Biopolymer Division (2015)
 12. Delegate as Future Leaders for 13th Annual Meeting of Science and Technology in Society *forum* (STS *forum*) (2016)
 13. The most highly prolific authors for *Biomacromolecules*, American Chemical Society (2016).
 14. *ChemComm* Emerging Investigators, Royal Society of Chemistry (2017).
 15. The Young Scientists' Prize, The Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology, Japan (2018).
 16. The BEPS Outstanding Young Scientist Award, BEPS 25th Anniversary Meeting, Bio-Environmental Polymer Society (BEPS), USA (2018).
 17. Award for Encouragement of Research, Japanese Society for Plant Cell and Molecular Biology, Japan (2019).
 18. SPSJ Asahi Kasei Award 2019, The Society of Polymer Science, Japan (SPSJ) (2019).
 19. The 2020 ACS *Macro Letters/Biomacromolecules/Macromolecules* Young Investigator Award. American Chemical Society, USA (2020).
 20. Award of The Society of Fiber Science and Technology, Japan (2021).
 21. Bioindustry Research Award, Japan Bioindustry Association (2021).

Journal Activities:

- Editorial member of *Kobunshi* (June 2016-May 2018), The Society of Polymer Science Japan.
- Editorial Board of *Scientific Reports* (February 2017-present), Springer-Nature Publishing Group
- Associate Editor of *Polymer Journal* (May 2018-February 2020), Springer-Nature Publishing Group
- Editorial Advisory Board of *Biomacromolecules* (January 2019-present), American

Chemical Society.

- Associate Editor of *ACS Biomaterials Science and Engineering* (April 2020-present), American Chemical Society.
- Editorial Advisory Board of *ACS Polymers Au* (March 2021-present) American Chemical Society.

Scientific Activities:

- Board Member (2010-2017) and Head (2015), Tokyo Young Polymer Scientists, The Society of Polymer Science Japan.
- Board Member of Kanto Branch (2016-2018), The Society of Fiber Science and Technology, Japan.
- The 10th International Conference of Modification, Degradation and Stabilization (MoDeSt2018 September 2-6, 2018) Local Scientific Committee.
- 67th Symposium on Macromolecules, The Society of Polymer Science Japan (Sep 12-14, 2018) Session Organizer on “Macromolecules Contributing to Sustainable Society.
- Vice Chair, Gordon Research Conference, Silk Proteins and the Transition to Biotechnologies (2023)
- Chair, Gordon Research Conference, Silk Proteins and the Transition to Biotechnologies (2025)

Keiji Numata earned his Ph.D. (2007) with a thesis centered on enzymatic degradation and synthesis with hydrolases of biopolymers, especially poly(hydroxyalkanoate), under the supervision of Prof. Yoshiharu Doi, Tokyo Institute of Technology. His Ph.D. thesis includes works on enzymatic polymerization to synthesize branched biopolymers, which has been performed in Royal Institute of Technology (Sweden) under the supervisions of Prof. Ann-Christine Albertsson and Prof. Anna Finne-Wistrand. He worked as a JSPS Postdoctoral Fellow for Research Abroad at Tufts University (USA) where he studied biosynthesis of silk-based polymers via bacterial pathways as well as silk-based gene carriers in the laboratory of Stern Family Professor in Engineering David L. Kaplan. He moved to RIKEN as a Senior Scientist in 2010 to start up a laboratory to investigate biosynthesis and material design of structural proteins and poly(amino acid). He has been a Team Leader (PI) of the lab since 2012 and Research Director, JST-ERATO Numata Organelle Reaction Cluster Project since 2016. In 2020, he moved to Department of Material Chemistry, Kyoto University, as a full professor. He received the 2020 *ACS Macro Letters/Biomacromolecules/Macromolecules* Young Investigator Award (American Chemical Society, 2020), SPSJ Asahi Kasei Award (2019), Award for Encouragement of Research, Japanese Society for Plant Cell and Molecular Biology, Japan (2019), Bio-Environmental Polymer Society Outstanding Young Scientist Award, USA (2018),

The Young Scientists' Prize for Minister of MEXT, Japan (2018), and so on. He was appointed as an associate editor of *Polymer Journal* (2018-2020) and is currently an associate editor of *ACS Biomaterials Science and Engineering*.