

Curriculum Vitae (updated: June.17.2016)

Kohsuke Kawabata, Ph.D.

Degree Ph.D. in Engineering (March 2013, University of Tsukuba)
Position: Postdoctoral fellow
Affiliation Yale University, School of Engineering & Applied Science, Department of Chemical Engineering
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Employment

Feb. 2015 – present Postdoctoral fellow at Yale University, School of Engineering & Applied Science, Department of Chemical Engineering (Supervisor: Prof. Dr. Chinedum Osuji)
Mar. 2013 – Jan. 2015 Postdoctoral researcher at Riken, Center for Emergent Matter Science, Emergent Molecular Function Research Group (Supervisor: Prof. Dr. Kazuo Takimiya)
Apr. 2010 – Mar. 2013 Research fellow of Japan Society for Promotion of Science (DC1, JSPS)

Education

(Oct. 2010 - Feb. 2011) Exchange program at Department of Chemistry, Faculty for Chemistry and Pharmacy, Ludwig-Maximilians-Universität München. (Supervisor: Prof. Dr. Paul Knochel)
Apr. 2010 – Mar. 2013 Ph.D. in Materials Science and Engineering, Institute of Materials Science, Graduate school of Pure and Applied Sciences, University of Tsukuba. (Supervisor: Prof. Dr. Hiromasa Goto)
Apr. 2008 - Mar. 2010 M. Sc. in Materials Science and Engineering, Institute of Materials Science, Graduate school of Pure and Applied Sciences, University of Tsukuba. (Supervisor: Prof. Dr. Hiromasa Goto)
Apr. 2004 - Mar. 2008 B. Sc. in Materials Science and Engineering, College of Engineering Science, University of Tsukuba. (Supervisor: Prof. Dr. Hiromasa Goto)

Fellowship and Awards

- Postdoctoral fellowship for research abroad of the Japan Society for Promotion of Science (JSPS) (Feb. 2015 ~ Jan. 2017).
- Dean award in Ph. D. course at Graduate School of Pure and Applied Sciences, University of Tsukuba. (Mar. 2013)
- The most distinguished poster prize in polymer chemistry (the top paper / 60 papers) at The Chemical Society of Japan Chemistry Festival 2012 (Oct. 2012)

- Research fellowship for young scientists of the Japan Society for Promotion of Science (DC1:JSPS) (Apr. 2010 - Mar. 2013)
- Journal of Materials Chemistry poster prize (Young Scientist Poster Award) at International Conference on Science and Technology of Synthetic Metals 2012 (ICSM 2012, Atlanta, U.S.A. Jul. 2012)
- The 42nd Conference of Fiber Science and Technology young scientist poster award (Top 5 papers / 112 papers) (Jun. 2011)

List of Publications (* denotes corresponding authors)

38. Very Small Bandgap π -Conjugated Polymers with Extended Thienoquinoids
Kohsuke Kawabata*, Masahiko Saito, Itaru Osaka*, Kazuo Takimiya
Journal of the American Chemical Society **2016**, *in press*.
37. A Poly(ter(3,4-ethylenedioxythiophene)) Showing Concentric-Circle Morphology Prepared by Electrochemical Synthesis in Smectic A Liquid Crystal under Vertical Strong Magnetic Field
 Hiroki Hayashi, Kohsuke Kawabata, Shigeki Nimori, Hiromasa Goto*
Chemistry Letters **2016**, 45, 170-172.
36. Synthesis and optical properties of poly(phenylenethiophene)s bearing conjugated side chains
 Hirotosugu Kawashima, Kohsuke Kawabata, Aohan Wang, Hiromasa Goto*
Designed Monomers and Polymers **2015**, 18, 661-668.
35. "Thienothiophene-2,5-dione-based Donor-Acceptor Polymers; Improved Synthesis and Influence of the Donor Units on Ambipolar Charge Transport Properties"
Kohsuke Kawabata, Itaru Osaka*, Masahiro Nakano, Noriko Takemura, Tomoyuki Koganezawa, Kazuo Takimiya*
Advanced Electronic Materials **2015**, 1, 1500039.
34. "Synthesis, Properties, and Doping Behavior of Optically Active Polythiophenes Bearing a Bornyl Group."
 Matsumura, Atsushi, Kohsuke Kawabata, Hiromasa Goto*
Macromolecular Chemistry and Physics **2015**, 216, 931-938.
33. "Thiophene-based chiral small bandgap π -conjugated polymers: synthesis and optical properties."
 Aohan Wang, Kohsuke Kawabata, Hiromasa Goto*
Designed Monomers and Polymers **2015**, 18, 360-366.
32. "Synthesis and characterization of a novel donor-acceptor- donor chiral inducer and its application in electrochemical polymerization"
 Jiuchao Dong; Kohsuke Kawabata; Hiromasa Goto*
Journal of Materials Chemistry C **2015**, 3, 2024-2032.

31. "Intramolecular charge transfer (ICT) of a chiroptically active conjugated polymer showing green colour"
Hirotsugu Kawashima; Kohsuke Kawabata; Hiromasa Goto*
Journal of Materials Chemistry C **2015**, 3, 1126-1133.
30. "Water soluble polyaniline/polysaccharide composite: Polymerization, carbonization to yield carbon micro-bubbles"
Kuniharu Nakajima, Kohsuke Kawabata, Hiromasa Goto*
Synthetic Metals **2014**, 194, 47-51.
29. "Synthesis of chiral inducers having double stereogenic centers for electrochemical polymerization in cholesteric liquid crystal medium"
Tomokazu Iseki, Kohsuke Kawabata, Shigeki Nimori, Hiromasa Goto*
Synthetic Metals **2014**, 187, 217-223.
28. "Catalysis direction selective asymmetric polymerization in chiral liquid crystal medium"
Tomokazu Iseki, Kohsuke Kawabata, Hirotsugu Kawashima, Hiromasa Goto*
Polymer **2014**, 55, 66-72.
27. "Synthesis and characterization of thieno[3,2-b]thiophene-based linear shaped liquid crystals"
Jiuchao Dong, Kohsuke Kawabata, Takahiro Seino, Fan Yang, Hiromasa Goto*
Liquid Crystals, **2013**, 40, 1455-1465.
26. "Synthesis and properties of low-bandgap liquid crystalline π -conjugated polymers"
Hiromasa Goto*, Aohan Wang, Kohsuke Kawabata, Fan Yang
Journal of Materials Science, **2013**, 48, 7523-7532.
25. "Mechanical orientation in thermotropic liquid crystal state and magnetic orientation in solvent evaporation process via lyotropic liquid crystal state of an amphotropic low-bandgap liquid crystalline π -conjugated polymer"
Hiromasa Goto*, Aohan Wang, Shigeki Nimori, Kohsuke Kawabata
Liquid Crystals **2013**, 40, 1159-1166.
24. "Synthesis of isothianaphthene (ITN)—and 3,4-ethylenedioxy-thiophene (EDOT) - based low-bandgap liquid crystalline conjugated polymers"
Aohan Wang, Kohsuke Kawabata, and Hiromasa Goto*
Materials, **2013**, 6, 2218-2228.
23. "Horizontal and vertical orientation of polythiophenes by electrochemical polymerization in magnetically aligned smectic liquid crystal"

Kohsuke Kawabata, Shigeki Nimori, Hiromasa Goto*

ACS Macro Letter, **2013**, 2, 587-591.

22. "Synthesis of a pyrimidine-based new chiral inducer for construction of cholesteric liquid crystal electrolyte solution and its electrochemical polymerization, and stimulation emission like interference"
Aohan Wang, Kohsuke Kawabata, Hirotsugu Kawashima, Hiromasa Goto*
Polymer **2013**, 54, 3821-3827.
21. "A possibility for generation of two species of charge carriers along main-chain and side-chains for a π -conjugated polymer"
Yuki Kudo, Kohsuke Kawabata, Hiromasa Goto*
Journal of Physics: Conference Series **2013**, 428, 012006.
20. "Optical activity of heteroaromatic conjugated polymer films prepared by asymmetric electrochemical polymerization in cholesteric liquid crystals: structurally induction function"
Kohsuke Kawabata, Masaki Takeguchi, Hiromasa Goto*
Macromolecules, **2013**, 46, 2078-2091.
19. "Helical twisting power of three-ring chiral molecules and polymerization in cholesteric electrolyte solutions"
Hitoshi Hayashi, Aohan Wang, Kohsuke Kawabata, Hiromasa Goto*
Materials Chemistry and Physics **2013**, 137, 816-824.
18. "Synthesis and optical properties of 1,1-binaphthol-thiophene alternating copolymers with main chain chirality"
Kohsuke Kawabata, Hiromasa Goto*
Journal of Materials Chemistry **2012**, 22, 23514-23524.
17. "Synthesis of polymers from chiral monomers in chiral liquid crystals"
Satoshi Ohkawa, Fan Yang, Kohsuke Kawabata, Hiromasa Goto*
Journal of Applied Polymer Science **2013**, 128, 3586-3591.
16. "Small carbon forms from polyaniline/metal"
Hiromasa Goto*, Atsushi Yokoo, Masaki Takeguchi, Kohsuke Kawabata
International Journal of Polymeric Materials and Polymeric Biomaterials **2013**, 62, 426-432.
15. "Preparation of phenylenevinylene derivatives having fluorescence and chiral induction function"
Hiromasa Goto*, Kohsuke Kawabata
Journal of Dispersion Science and Technology **2013**, 34, 311-321.

14. "Dynamic emission controllable polymer nanofibers — Electro-fluorescence chromism and polarized emission of polycarbazole derivatives"
Kohsuke Kawabata, Hiromasa Goto*
Chemistry - A European Journal **2012**, 18, 15065-15072.
13. "Synthesis and double doping behavior of a poly(p-phenylenevinylene)s bearing conjugated side chains"
Hirotsugu Kawashima, Kohsuke Kawabata, Hiromasa Goto*
Journal of Polymer Science Part A: Polymer Chemistry **2012**, 50, 1530–1538.
12. "Synthesis of a low-bandgap polymer bearing side groups containing phenoxy radicals"
Yu Innami, Rafaël H. L. Kiebooms, Tamotsu Koyano, Masaaki Ichinohe, Satoshi Ohkawa, Kohsuke Kawabata, Masataka Kawamatsu, Kiyoto Matsuishi, Hiromasa Goto*
Journal of Materials Science, **2011**, 46, 6556-6562
11. "Light driven asymmetric polymerization: an approach for tele-control reaction"
Hiromasa Goto*, Kohsuke Kawabata
Polymer Chemistry, **2011**, 2, 1098-1106.
10. "Polymerization in liquid crystal medium: Preparation of polythiophene derivatives bearing a bulky pyrimidine substituent"
Satoshi Ohkawa, Reina Ohta, Kohsuke Kawabata, Hiromasa Goto*
Polymers, **2010**, 2, 393-406
9. "Uniaxially ordered conjugated polymer film prepared by electrochemical polymerization in a nematic liquid crystal with rubbing orientation method showing redox-driven tunable dichroism"
Kohsuke Kawabata, Hiroyuki Yoneyama, Hiromasa Goto*
Polymer Chemistry, **2010**, 1, 1606-1608.
8. "Electrosynthesis of 2,7-linked polycarbazole derivatives to realize low-bandgap electroactive polymers"
Kohsuke Kawabata, Hiromasa Goto*
Synthetic Metals, **2010**, 160, 2290-2298.
7. "Electrochemical preparation of an electroactive polymer poly(dodecyloxy dibenzothiophene) (polyDDBTh) from hydroxyl dibenzothiophene (HDBTh) as a bioconverted monomer"
Hiromasa Goto*, Yong-Soo Jeong, Kohsuke Kawabata, Masaki Takada, Takuya Kotanagi, Hideyuki Shigemori, Nobuhiko Nomura.
Journal of Applied Electrochemistry **2010**, 40, 191-195.

6. "Periodic structure in a fluorene-based polymer prepared by electrochemical polymerization"
Kohsuke Kawabata, Hiromasa Goto*
Chemistry Letters **2009**, 38, 706-707.
5. "Preparation of furan-based monomers and asymmetric electrochemical polymerization in cholesteric liquid crystals: optically activity and selective reflection"
Kohsuke Kawabata, Hiroyuki Yoneyama, Hiromasa Goto*
Molecular Crystals and Liquid Crystals **2009**, 515, 3-15.
4. "Liquid crystalline π -conjugated copolymers bearing a pyrimidine type mesogenic group"
Kohsuke Kawabata, Hiromasa Goto*
Materials **2009**, 2, 22-37.
3. "Preparation of iridescent-reflective poly(furan-co-phenylene)s by electrochemical polymerization in a cholesteric liquid crystal medium"
Hiroyuki Yoneyama, Kohsuke Kawabata, Akitsu Tsujimoto, Hiromasa Goto*
Electrochemistry Communications **2008**, 10, 965-969.
2. "Visualization of nematic liquid crystal director by alignment of π -conjugated polymer nanotubes"
Hiromasa Goto*, Kohsuke Kawabata
Macromolecules **2008**, 41, 4551-4554.
1. "Cholesteric liquid crystal inductive asymmetric polymerization of thiophene monomers"
Hiromasa Goto*, Fumihiro Togashi, Akitsu Tsujimoto, Reina Ohta, Kohsuke Kawabata
Liquid Crystals **2008**, 35, 847-856.