

Curriculum Vita

Li Jia

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EDUCATION

B.Sc. in Organic Chemistry, 1991, Lanzhou University.
Ph.D. in Chemistry, 1996, Northwestern University, advised by Prof. Tobin J. Marks
Postdoctoral Training, 1996 – 1998, University of California – Berkeley, advised by Prof. Richard A. Andersen

PROFESSIONAL APPOINTMENTS

Professor, 2019 – , Department of Polymer Science, The University of Akron.
Associate Professor, 2011 – 2019, Department of Polymer Science, The University of Akron.
Assistant Professor, 2007 – 2011, Department of Polymer Science, The University of Akron.
Senior Scientist, 2005 – 2007, Rohm and Haas Electronic Materials.
Assistant Professor, 1998 – 2005, Department of Chemistry, Lehigh University.

AWARDS

NSF CAREER Award (2002)
DuPont Young Investigator Award (2001)
Lindback Minority Junior Faculty Award (2000)

COURSES TAUGHT

Currently in Rotation

- Principles of Chemistry II – Second semester freshman chemistry
- Metal-Catalyzed Polymerizations – Graduate special topic class
- Elastomeric soft materials – Graduate special topic class

Taught in the Past

- Introduction to Polymer Science – Undergraduate class for Chemical Engineering and Chemistry Seniors
- Polymer Chemistry – Graduate class
- Polymer Technology (I) – Graduate class
- Elastomers – Undergraduate class
- Introduction to Photolithography Materials – Graduate special topic class
- Chemical Equilibrium in Aqueous Systems – Freshman chemistry
- Main Group Chemistry – Undergraduate class for chemistry and biochemistry majors
- Advanced Inorganic Chemistry – Undergraduate class for chemistry majors
- Organometallic Chemistry – Graduate class

REPRESENTATIVE PUBLICATIONS

1. Dai, Y.; He, S.; Peng, B.; Crandall, L. A.; Schrage, B. R.; Ziegler, C. J.; Jia, L.* “Zwitterionic Design Principle of Nickel(II) Catalysts for Carbonylative Polymerization of Cyclic Ethers”, *Angew. Chem., Int. Ed.* **2018**, *57*, 14111-14115.
2. Scavuzzo, J. J.; Yan, X.; Zhao, Y.; Scherger, J. D.; Zhang, S.; Liu, H.; Gao, M.; Li, T.; Zhao, X.; Hamed, G. R.; Foster, M. D.; Jia, L.* “Supramolecular elastomers. Particulate β -sheet nanocrystal-reinforced synthetic elastic networks”, *Macromolecules* **2016**, *49*, 2688-2697.
3. Jia, X.; Zhang, M. Pan, F.; Babahan, I.; Ding, K.; Jia, L.*; Crandall, L. A.; Ziegler C. J. “Zwitterionic Nickel(II) Catalyst for CO-Ethylene Alternating Copolymerization”, *Organometallics* **2015**, *34*, 4798-4801.
4. Ray, M. A.; Jia, L.* “Micropatterning by non-densely packed interfacial colloidal crystals”, *Adv. Mat.* **2007**, *19*, 2020–2022.
5. Liu, G.; Jia, L.* “Carbonylative copolymerization of azetidines and tetrahydrofuran. Dual role of azetidine and synthesis of poly(amide-co-ester) with periodic ester distribution”, *Angew. Chem., Int. Ed.* **2006**, *45*, 129–131.
6. Liu, G.; Jia, L.* “Design of carbonylative polymerization of heterocycles. Synthesis of polyesters and poly(amide-block-ester)s”, *J. Am. Chem. Soc.* **2004**, *126*, 14716–14717.
7. Darensbourg, D. J.*; Phelps, A. L.; Le Gall, N.; Jia, L.* “Mechanistic studies of the copolymerization reaction of aziridines and carbon monoxide to produce poly- β -peptoids”, *J. Am. Chem. Soc.* **2004**, *126*, 13808–13815.
8. Jia, L.*; Sun, H.; Shay, J. T.; Allgeier, A. M.; Hanton, S. D.; “Living alternating copolymerization of *N*-alkylaziridines and carbon monoxide as a route for synthesis of poly- β -peptoids”, *J. Am. Chem. Soc.* **2002**, *124*, 7282–7283.
9. Jia, L.*; Ding, E.; and Anderson, W. R.; “Copolymerization of carbon monoxide and aziridine”, *Chem. Commun.* **2001**, 1436–1437.
10. Jia, L.*; Ding, E.; B. Rhatigon, B.; and Rheingold, A.; “Neutral tripodal amidozirconium alkyls and hydride. Synthesis, structures, and catalytic olefin insertions”, *Organometallics* **2000**, *19*, 963–965.

PATENT APPLICATIONS AND PATENTS

1. Jia, L.; Yan, X.; Hamed, G. R. “Silica-reinforced rubber compounds with catechol derivatives as covering agents and coupling agents”, Application PCT/2017/60535.
2. Jia, L.; Jia, X.; “Terpolymerization of carbon monoxide, an olefin, and an epoxide”, Application PCT/US2016/06509.
3. Jia, L.; Hamed, G. R.; Tan, X. “Thermoset rubber reinforced by supramolecular building blocks”, **2018**, US 9,982,117.
4. Jia, L.; Scavuzzo, J.; Li, K. “Supramolecular elastomer networks containing grafted oligopeptide hard components”, **2018**, US 9,914,798.
5. Jia, L.; Kennedy, J. P.; Scavuzzo, J. “Thermoplastic elastomer containing an oligopeptide hard component”, **2016**, US 9,527,964.
6. Jia, L.; Liu, L. “Anti-fouling materials based on poly(β -peptoids)s”, **2015**, US 9,120,040.
7. Jia, L. “*N*-Type Conjugated compounds containing diborylene units, method of making, and device comprising the compound”, **2013**, US 8,519,077.
8. Jia, L.; Ray, M. A. “Method of transferring patterned non-densely packed interfacial particle films onto substrates”, **2011**, US 7,939,133 B2.

9. Marks, T. J.; Yang, X.; Jia, L. "Polymerization of methylenecyclopropane to poly(1,4,2:2-butane-tetra-yl) using zirconium catalysts", **1996**, US 5,480,952.
10. Marks, T. J.; Yang, X.; Jia, L. "Preparation of polymers using ring-opening Ziegler olefin polymerization catalysts", **1995**, US 5,395,906.
11. Marks, T. J.; Yang, X.; Jia, L. "Method of polymerizing exo-methylene cyclic organic compounds using homogeneous ring-opening catalysts", **1994**, US 5,300,598.