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1. EDUCATION & PROFESSIONAL TRAINING

- Postdoctoral Fellow**, Department of Chemistry, University of California Berkeley and Molecular Foundry,
Lawrence Berkeley National Laboratory, Berkeley, CA, USA **01.2009 - 05.2011**
Advisor: Prof. Jean M. J. Fréchet
- Ph.D.** (Chemistry) Carnegie Mellon University, Pittsburgh, PA, USA **12.2008**
Advisor: Prof. Krzysztof Matyjaszewski
- M.S.** (Polymer Chemistry) Fudan University, Shanghai, China **06.2003**
- B.S.** (Polymer Chemistry) Fudan University, Shanghai, China **06.2000**

2. APPOINTMENT & PROFESSIONAL EXPERIENCE

- Associate Professor of Chemistry & Biochemistry, University of Notre Dame **07.2017 - present**
Assistant Professor, Department of Chemistry & Biochemistry, University of Notre Dame **07.2011 - 06.2017**
Postdoctoral Researcher at UC Berkeley and Lawrence Berkeley National Laboratory **01.2009 - 05.2011**
Research Assistant at Carnegie Mellon University **2004 - 2008**

3. HONORS & AWARDS

- NSF CAREER award **2016**
- Thieme Chemistry Journal Awardees **2015**
- Army Young Investigator Program (YIP) award **2014**
- Senior Visiting Scholar of Key Laboratory in Fudan University, China **2013**
- UMass MRSEC Young Investigator Award **2013**
- AkzoNobel Award for Outstanding Graduate Research in Polymer Chemistry, ACS **2010**
- 1st Prize Poster Award at 5th CRP Symposium, 236th ACS National Meeting, Polymer Division **2008**
- Guy C. Berry Graduate Research Award at Carnegie Mellon University **2008**
- Student Research Award at ACS Polymer Group (Pittsburgh Section) **2008**
- Chinese Government Award for Outstanding Self-Financed Students Abroad **2007**
- McWilliams Fellowship at Carnegie Mellon University **2007**

4. PUBLICATIONS

a. Peer-Reviewed Papers

(From independent research as PI at Notre Dame)

1. L. Zhao; X. Wu; X. Wang; C. Duan; H. Wang; A. Punjabi; Y. Zhao; Y. Zhang; Z. Xu; **H. Gao***; G. Han, Development of Excipient-Free Freeze-Dryable Unimolecular Hyperstar Polymers for Efficient siRNA Silencing, *ACS Macro Lett.* **2017**, 6, 700-704.
2. X. Wang; **H. Gao***, Recent Progress on Hyperbranched Polymers Synthesized via Radical-Based Self-Condensing Vinyl Polymerization, *Polymers* **2017**, 9, 188.

Curriculum Vitae

3. D. Hu; S. Jin; Y. Shi; X. Wang; R.W. Graff; W. Liu; M. Zhu; **H. Gao***, Preparation of hyperstar polymers with encapsulated Au₂₅(SR)₁₈ clusters as recyclable catalysts for nitrophenol reduction, *Nanoscale* **2017**, *9*, 3629-3636.
4. B. Jing; X. Wang; H. Wang; J. Qiu; Y. Shi; **H. Gao**; Y. Zhu, Shape and Mechanical Control of Poly(ethylene oxide) Based Polymersome with Polyoxometalates via Hydrogen Bond, *J. Phys. Chem. B* **2017**, *121*, 1723-1730
1. S. Qu; Y. Shi; S. Benavides; A. Hunter; **H. Gao**; W.A. Phillip, Copolymer Nanofilters with Charge-Patterned Domains for Enhanced Electrolyte Transport, *Chem. Mater.* **2017**, *29*, 762–772
2. X. Cao; Y. Shi; **H. Gao***, A Novel Chain-Growth CuAAC Polymerization: One-pot Synthesis of Dendritic Hyperbranched Polymers with Well-Defined Structures, *Synlett.* **2017**, *28*, 391-396
3. W. Gan; Y. Shi; B. Jing; X. Cao; Y. Zhu; **H. Gao***, Produce Molecular Brushes with Ultrahigh Grafting Density Using Accelerated CuAAC Grafting-Onto Strategy, *Macromolecules* **2017**, *50*, 215-222
4. Y. Shi, X. Cao; L. Zou; W. Gan; **H. Gao***, Preparation of Water-soluble Hyperbranched Polymers with Tunable Thermosensitivity using Chain-growth CuAAC Copolymerization, *Polym. Chem.* **2016**, *7*, 7500-7505.
5. X. Wang; Y. Shi; R.W. Graff; X. Cao; **H. Gao***, Synthesis of Hyperbranched Polymers with High Molecular Weight in the Homopolymerization of Polymerizable Trithiocarbonate Transfer Agent without Thermal Initiator, *Macromolecules* **2016**, *49*, 6471–6479.
6. L. Zou; Y. Shi; X. Cao; W. Gan; X. Wang; R. Graff; D. Hu; **H. Gao***, Synthesis of Acid-Degradable Hyperbranched Polymers by Chain-Growth CuAAC Polymerization of an AB₃ Monomer, *Polym. Chem.* **2016**, *7*, 5512-5517.
7. X. Cao; Y. Shi; W. Gan; H. Naguib; X. Wang; R.W. Graff; **H. Gao***, Effect of Monomer Structure on the CuAAC Polymerization To Produce Hyperbranched Polymers, *Macromolecules* **2016**, *49*, 5342–5349
8. Y. Shi; X. Cao; S. Luo; X. Wang; R.W. Graff; D. Hu; R. Guo; **H. Gao***, Investigate the Glass Transition Temperature of Hyperbranched Copolymers with Segmented Monomer Sequence, *Macromolecules* **2016**, *49*, 4416-4422
9. C. Qu; Y. Shi; B. Jing; **H. Gao***; Y. Zhu*, Probing the Inhomogeneous Charge Distribution on Annealed Polyelectrolyte Star Polymers in Dilute Aqueous Solutions, *ACS Macro Letters* **2016**, *5*, 402-406
10. Y. Shi; X. Cao; **H. Gao***, The Use of Azide-Alkyne Click Chemistry in Recent Syntheses and Applications of Polytriazole-based Nanostructured Polymers, *Nanoscale* **2016**, *8*, 4864-4881
11. X. Cao; Y. Shi; X. Wang; R.W. Graff; **H. Gao***, Design a Highly Reactive Trifunctional Core Molecule To Obtain Hyperbranched Polymers with over a Million Molecular Weight in One-Pot Click Polymerization, *Macromolecules* **2016**, *49*, 760-766.
12. S. Misra; X. Wang; I. Srivastava; M. Imgruet; R.W. Graff; A. Ohoka; T. Kampert; **H. Gao***; D. Pan*, Combinatorial Therapy for Triple Negative Breast Cancer using HyperStar Polymer-based Nanoparticles, *Chem. Commun.* **2015**, *51*, 16710-16713.
13. R.W. Graff; Y. Shi; X. Wang; **H. Gao***, Comparison of Loading Efficiency between Hyperbranched Polymers and Crosslinked Nanogels at Various Branching Densities, *Macromol. Rapid Commun.* **2015**, *36*, 2076-2082.
14. X. Wang; R.W. Graff; Y. Shi; **H. Gao***, One-pot Synthesis of Hyperstar Polymers via Sequential ATRP of Inimers and Functional Monomers in Aqueous Dispersed Media, *Polym. Chem.* **2015**, *6*, 6739-6745.
15. Y. Shi; R.W. Graff; X. Cao; X. Wang, **H. Gao***, Chain-Growth Click Polymerization of AB₂ Monomers to Produce Hyperbranched Polymer with Low Polydispersity in One-Pot, *Angew. Chem., Int. Ed.* **2015**, *54*, 7631-7635. (Inside Cover of the journal, highlighted by [Phys.Org](#) and [Chemicals Technology](#).)

Curriculum Vitae

16. X. Wang; Y. Shi; R.W. Graff; D. Lee; **H. Gao***, Developing Recyclable pH-Responsive Magnetic Nanoparticles for Oil-Water Separation, *Polymer* **2015**, 72, 361-367.
17. Z. Guo; D. Lee; J. Strzalka; **H. Gao**; L. Huang, Exciton Structure and Dynamics in Solution Aggregates of a Low-bandgap Copolymer, *J. Phys. Chem. B* **2015**, 119, 7666–7672.
18. G. Lu; H. Liu; **H. Gao***; C. Feng; Y. Li; X. Huang, Construction of semi-fluorinated amphiphilic graft copolymer bearing a poly(2-methyl-1,4-bistrifluorovinylbenzene) backbone and poly(ethylene glycol) side chains via the grafting-onto strategy, *RSC Advances* **2015**, 5, 39668-39676
19. R.W. Graff; X. Wang; **H. Gao***, Exploring Self-Condensing Vinyl Polymerization of Inimers in Microemulsion To Regulate the Structures of Hyperbranched Polymers, *Macromolecules* **2015**, 48, 2118–2126
20. Q. An; Z. Li; R. Graff; J. Guo; **H. Gao**; C. Wang, Core-Double-Shell Fe₃O₄@Carbon@Poly(InIII-carboxylate) Microspheres: Cycloaddition of CO₂ and Epoxides on Coordination Polymer Shells Constituted by Imidazolium-Derived AlIII–Salen Bifunctional Catalysts, *ACS Appl. Mater. Interfaces* **2015**, 7, 4969-4978
21. D. Lee, C. Zhang, **H. Gao***, Amine-Functionalized Mesoporous Polymer Network for Highly Selective Absorption of CO₂ over N₂, *Macromol. Chem. Phys.* **2015**, 216, 489-494.
22. Y. Shi; X. Wang; R.W. Graff; W.A. Phillip; **H. Gao***, Synthesis of degradable molecular brushes via a combination of ring-opening polymerization and click chemistry, *J. Polym. Sci., Part A: Polym. Chem.* **2015**, 53, 239-248.
23. S. Rajesh; Y. Yan; H.-C. Chang; **H. Gao**; W.A. Phillip, Mixed Mosaic Membranes Prepared by Layer-by-Layer Assembly for Ionic Separations, *ACS Nano* **2014**, 8, 12338-12345.
24. Z. Guo; D. Lee; J. Strzalka; **H. Gao**; L. Huang; A.M. Khounsary; T. Luo, Thermal conductivity of organic bulk heterojunction solar cells: an unusual binary mixing effect, *Phys. Chem. Chem. Phys.* **2014**, 16, 26359-26364.
25. Z. Guo; D. Lee; R.D. Schaller; X. Zuo; B. Lee; T. Luo; **H. Gao**; L. Huang, Relationship between Interchain Interaction, Exciton Delocalization, and Charge Separation in Low-Bandgap Copolymer Blends, *J. Am. Chem. Soc.* **2014**, 1364, 10024-10032.
26. D. Li; Y. Zhang; S. Jin; J. Guo; **H. Gao**; C. Wang, Development of a Redox/pH Dual Stimuli-Responsive MSP@P(MAA-Cy) Drug Delivery System for Programmed Release of Anticancer Drugs in Tumor Cells, *J. Mater. Chem. B* **2014**, 2, 5187-5194.
27. Z. Guo, D. Lee, Y. Liu, F. Sun, **H. Gao**, B. Peter, L. Huang, T Luo, Tuning the Thermal Conductivity of Solar Cell Polymers through Side Chain Engineering, *Phys. Chem. Chem. Phys.* **2014** 16, 7764.
28. D. Lee, C. Zhang, and **H. Gao***, Facile Production of Polypyrrole Nanofibers Using Freeze-Drying Method, *Macromol. Chem. Phys.* **2014**, 215, 669-674.
29. C. Zhang, X. Wang, K. Min, D. Lee, C. Wei, H. Schulhauser and **H. Gao***, Developing Honeycomb-Structured Porous Films Using Mikroarm Star Copolymers for Application in Particle Separation, *Macromol. Rapid Commun.* **2014**, 35, 221-227.
30. D. Lee, C. Zhang, C. Wei, B. L. Ashfeld and **H. Gao***, Fast and Efficient CO₂ Capture using High Nitrogen-Contents Polypyrrole Nanoparticles, *J. Mater. Chem. A*, **2013**, 1, 14862-14867.
31. K. Min, **H. Gao***, New Method to Access Hyperbranched Polymers with Uniform Structure via One-Pot Polymerization of Inimer in Microemulsion, *J. Am. Chem. Soc.* **2012**, 134, 15680-15683.
32. **H. Gao***, Development of Star Polymers as Unimolecular Containers for Nanomaterials, *Macromol. Rapid Commun.* **2012**, 33, 722-734.

(From research as student and postdoc before Notre Dame)

Curriculum Vitae

33. **H. Gao**, D. A. Poulsen, B. Ma, D. A. Unruh, X. Zhao, J. E. Millstone, J. M. J. Fréchet, Site Isolation of Emitters within Crosslinked Polymer Nanoparticles for White Electroluminescence, *Nano Lett.*, **2010**, *10*, 1440-1444.
34. V. Rodionov, **H. Gao**, S. Scroggins, D. A. Unruh, A. Avestro, J. M. J. Fréchet, Easy Access to A Family of Polymer Catalysts from Modular Star Polymers, *J. Am. Chem. Soc.* **2010**, *132*, 2570-2572.
35. M. Makrocka-Rydzzyk; A. Wypych; M. Dobies; M. Jancelewicz; S. Jurga; H.Y. Cho; **H. Gao**; K. Matyjaszewski, Molecular dynamics in PBA/PEO miktoarm star copolymers, *Polymer* **2013**, *54*, 3341-3349
36. M. Makrocka-Rydzzyk; K. Wegner; K. Szutkowski; M. Kozak; S. Jurga; H. Gao; K. Matyjaszewski, Morphology and NMR self-diffusion in PBA/PEO miktoarm star copolymers, *Z. Phys. Chem.* **2012**, *226*, 1271-1291
37. H. Y. Cho, **H. Gao**, A. Srinivasan, J. Hong, S. A. Bencherif, D. J. Siegwart, H.-j. Paik, J. O. Hollinger, K. Matyjaszewski, Rapid Cellular Internalization of Multifunctional Star Polymers Prepared by Atom Transfer Radical Polymerization, *Biomacromolecules* **2010**, *11*, 2199-2203.
38. W. V. Camp, **H. Gao**, F. E. Du Prez, K. Matyjaszewski, Effect of Crosslinker Multiplicity on the Gel Point in ATRP, *J. Polym. Sci., Part A: Polym. Chem.* **2010**, *48*, 2016-2023.
39. **H. Gao**, K. Matyjaszewski, Modular Approaches to Star and Miktoarm Star Polymers by ATRP of Cross-Linkers, *Macromol. Symp.* **2010**, *291-292*, 12-16.
40. **H. Gao**, K. Min, K. Matyjaszewski, Gelation in ATRP Using Structurally Different Branching Reagents: Comparison of Inimer, Divinyl and Trivinyl Cross-linkers, *Macromolecules* **2009**, *42*, 8039-8043.
41. **H. Gao**, P. Polanowski, K. Matyjaszewski, Gelation in Living Copolymerization of Monomer and Divinyl Cross-Linker: Comparison of ATRP Experiments with Monte Carlo Simulations, *Macromolecules* **2009**, *42*, 5925-5932.
42. S. A. Bencherif, **H. Gao**, A. Srinivasan, D. J. Siegwart, J. O. Hollinger, N. R. Washburn, K. Matyjaszewski, Cell-Adhesive Star Polymers Prepared by ATRP, *Biomacromolecules* **2009**, *10*, 1795-1803.
43. **H. Gao**, K. Matyjaszewski, High-Yield Synthesis of Uniform Star Polymers-Is Controlled Radical Polymerization Always Needed? *Chem. Eur. J.* **2009**, *15*, 6107-6111.
44. **H. Gao**, K. Matyjaszewski, Synthesis of Functional Polymers with Controlled Architecture by CRP of Monomers in the Presence of Cross-linkers: From Stars to Gels, *Prog. Polym. Sci.* **2009**, *34*, 317-350.
45. S. Ohno, **H. Gao**, B. Cusick, T. Kowalewski, K. Matyjaszewski, Methacryloyl and/or Hydroxyl End-Functional Star Polymers Synthesized by ATRP using the Arm-First Method, *Macromol. Chem. Phys.* **2009**, *210*, 421-430.
46. K. Min, **H. Gao**, J. A. Yoon, W. Wu, T. Kowalewski, K. Matyjaszewski, One-Pot Synthesis of Hairy Nanoparticles by Emulsion ATRP, *Macromolecules* **2009**, *42*, 1597-1603.
47. W. Li, **H. Gao**, K. Matyjaszewski, Influence of Initiation Efficiency and Polydispersity of Primary Chains on Gelation during Atom Transfer Radical Copolymerization of Monomer and Cross-Linker, *Macromolecules* **2009**, *42*, 927-932.
48. B.-S. Kim, **H. Gao**, A. A. Argun, K. Matyjaszewski, P. T. Hammond, All-Star Polymer Multilayers as pH-Responsive Nanofilms, *Macromolecules* **2009**, *42*, 368-375.
49. D. J. Siegwart, J. K. Oh, **H. Gao**, S. A. Bencherif, F. Perineau, A. K. Bohaty, J. O. Hollinger, K. Matyjaszewski, Biotin-, Pyrene-, and GRGDS-Functionalized Polymers and Nanogels via ATRP and End Group Modification, *Macromol. Chem. Phys.* **2008**, *209*, 2179-2193.
50. **H. Gao**, A. Miasnikova, K. Matyjaszewski, Effect of Cross-linker Reactivity on Experimental Gel Points during ATRCp of Monomer and Cross-linker, *Macromolecules* **2008**, *41*, 7843-7849.

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51. H. Dong, M. Zhu, J. A. Yoon, **H. Gao**, R. Jin, K. Matyjaszewski, One-Pot Synthesis of Robust Core/Shell Gold Nanoparticles, *J. Am. Chem. Soc.* **2008**, *130*, 12852-12853.
52. **H. Gao**, K. Matyjaszewski, Synthesis of Low Polydispersity Miktoarm Star Copolymers via A Simple "Arm-First" Method: Macromonomers as Arm Precursors, *Macromolecules* **2008**, *41*, 4250-4257.
53. **H. Gao**, W. Li, K. Matyjaszewski, Synthesis of Polyacrylate Networks by ATRP: Parameters Influencing Experimental Gel Points, *Macromolecules* **2008**, *41*, 2335-2340.
54. **H. Gao**, K. Matyjaszewski, Synthesis of Star Polymers by A New "Core-First" Method: Sequential Polymerization of Cross-linker and Monomer, *Macromolecules* **2008**, *41*, 1118-1125.
55. **H. Gao**, K. Min, K. Matyjaszewski, Determination of Gel Point during Atom Transfer Radical Copolymerization with Cross-linker, *Macromolecules* **2007**, *40*, 7763-7770.
56. **H. Gao**, K. Matyjaszewski, "Arm-First" Method As A Simple and General Method for Synthesis of Miktoarm Star Copolymers, *J. Am. Chem. Soc.* **2007**, *129*, 11828-11834.
57. **H. Gao**, K. Min, K. Matyjaszewski, Synthesis of 3-Arm Star Block Copolymers by Combination of "Core-first" and "Coupling-onto" Methods Using ATRP and Click Reactions, *Macromol. Chem. Phys.* **2007**, *208*, 1370-1378.
58. **H. Gao**, K. Matyjaszewski, Synthesis of Molecular Brushes by "Grafting Onto" Method: Combination of ATRP and Click Reactions, *J. Am. Chem. Soc.* **2007**, *129*, 6633-6639.
59. K. Min, **H. Gao**, K. Matyjaszewski, Use of Ascorbic Acid as Reducing Agent for Synthesis of Well-Defined Polymers by ARGET ATRP, *Macromolecules* **2007**, *40*, 1789-1791.
60. **H. Gao**, K. Matyjaszewski, Low Polydispersity Star Polymers with Core Functionality by Cross-linking Macromonomers Using Functional ATRP Initiators, *Macromolecules* **2007**, *40*, 399-401.
61. **H. Gao**, S. Ohno, K. Matyjaszewski, Low Polydispersity Star Polymers via Cross-Linking Macromonomers by ATRP, *J. Am. Chem. Soc.* **2006**, *128*, 15111-15113.
62. **H. Gao**, K. Matyjaszewski, Synthesis of Miktoarm Star Polymers via ATRP Using the "In-Out" Method: Determination of Initiation Efficiency of Star Macroinitiators, *Macromolecules* **2006**, *39*, 7216-7223.
63. **H. Gao**, K. Min, K. Matyjaszewski, Characterization of Linear and 3-Arm Star Block Copolymers by Liquid Chromatography at Critical Conditions, *Macromol. Chem. Phys.* **2006**, *207*, 1709-1717 (invited cover feature article).
64. **H. Gao**, K. Matyjaszewski, Synthesis of Star Polymers by a Combination of ATRP and the "Click" Coupling Method, *Macromolecules* **2006**, *39*, 4960-4965.
65. **H. Gao**, K. Matyjaszewski, Structural Control in ATRP Synthesis of Star Polymers Using the Arm-First Method, *Macromolecules* **2006**, *39*, 3154-3160.
66. K. Min, **H. Gao**, K. Matyjaszewski, Development of an ab Initio Emulsion Atom Transfer Radical Polymerization: From Microemulsion to Emulsion, *J. Am. Chem. Soc.* **2006**, *128*, 10521-10526.
67. J. K. Oh, C. Tang, **H. Gao**, N. V. Tsarevsky, K. Matyjaszewski, Inverse Miniemulsion ATRP: A New Method for Synthesis and Functionalization of Well-Defined Water-Soluble/Cross-Linked Polymeric Particles, *J. Am. Chem. Soc.* **2006**, *128*, 5578-5584.
68. **H. Gao**, G. Louche, B. S. Sumerlin, N. Jahed, P. Golas, K. Matyjaszewski, Gradient Polymer Elution Chromatographic Analysis of α,ω -Dihydroxypolystyrene Synthesized via ATRP and Click Chemistry, *Macromolecules* **2005**, *38*, 8979-8982.
69. **H. Gao**, N. V. Tsarevsky, K. Matyjaszewski, Synthesis of Degradable Miktoarm Star Copolymers via Atom Transfer Radical Polymerization, *Macromolecules* **2005**, *38*, 5995-6004.

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70. **H. Gao**, D. J. Siegart, N. Jahed, T. Sarbu, K. Matyjaszewski, Characterization of α,ω -Dihydroxypolystyrene by Gradient Polymer Elution Chromatography and Two-dimensional Liquid Chromatography, *Designed Monomers and Polymers* **2005**, 8, 533-546.
71. K. Min, **H. Gao**, K. Matyjaszewski, Preparation of Homopolymers and Block Copolymers in Miniemulsion by ATRP Using Activators Generated by Electron Transfer (AGET), *J. Am. Chem. Soc.* **2005**, 127, 3825-3830
72. **H. Gao**, W. Yang, K. Min, L. Zha, C. Wang, S. Fu, Thermosensitive Poly(*N*-isopropylacrylamide) Nanocapsules with Controlled Permeability, *Polymer* **2005**, 46, 1087-1093.
73. **H. Gao**, C. Wang, W. Yang, S. Fu, Preparation of A Water-Soluble Fluorescent Polymer, *J. Macromol. Sci., Pure Appl. Chem.* **2004**, A41, 357-371.
74. **H. Gao**, Y. Zhao, S. Fu, B. Li, M. Li, Preparation of A Novel Polymeric Fluorescent Nanoparticles, *Colloid Polym. Sci.* **2002**, 280, 653-660.

b. Book Chapters

(From independent research as PI at Notre Dame)

1. Y. Shi, R.W. Graff, **H. Gao***, Recent Progress on Synthesis of Hyperbranched Polymers with Controlled Molecular Weight Distribution, in *ACS Symp. Ser.* **2015**, Vol. 1188, 135-147.
2. **H. Gao***, N. Chan, J.K. Oh*, K. Matyjaszewski*, Designing Hydrogel by ATRP in book "In-Situ Gelling Polymers", Editor: Xian Jun Loh, in Springer, January 2015, 69-105.
3. C. Wei, **H. Gao***, Star Polymers as Unimolecular Containers, in Encyclopedia of Polymeric Nanomaterials, edited by Shiro Kobayashi and Klaus Müllen, Springer-Verlag Berlin Heidelberg 2014, 1-7.

(From research as student and postdoc before Notre Dame)

4. N. V. Tsarevsky, K. Min, N. Jahed, **H. Gao**, K. Matyjaszewski, Functional degradable polymeric materials prepared by atom transfer radical polymerization (ATRP). *ACS Symp. Ser.* **2012**, Vol. 1114, 325-338
5. **H. Gao**, W. Li, K. Min, K. Matyjaszewski, Gelation in Atom Transfer Radical Copolymerization with A Divinyl Cross-linker, in *ACS Symp. Ser.* **2009**, Vol. 1023, 203-213.
6. N. V. Tsarevsky, K. Min, N. Jahed, **H. Gao**, K. Matyjaszewski, Degradable Polymers and Materials – Principles and Practice, in *ACS Symp. Ser.* **2006**, Vol. 939, 184-200.
7. B. S. Sumerlin, N. V. Tsarevsky, **H. Gao**, P. Golas, G. Louche, R. Y. Lee, K. Matyjaszewski, Click Functionalization of Well-Defined Copolymers Prepared by Atom Transfer Radical Polymerization, in *ACS Symp. Ser.* **2006**, Vol. 944, 140-152.

c. Patents

(From independent research as PI at Notre Dame)

1. **H. Gao***, K. Min, Hyperbranched Polymers and Synthesizing Hyperbranched Polymers with Uniform Structure in Confined Space, U.S. Pat. Appl. Publ. 2015, US 20150368379.

(From research as student and postdoc before Notre Dame)

2. K. Matyjaszewski, H. Gao, J. Spanswick, Preparation of Functional Star Macromolecules with Low Polydispersity, PCT Int. Appl. 2010, WO 2010111708.

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