

Curriculum Vitae

CHUANBING TANG

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Education

June 2006-July 2009 Postdoctoral Scholar, University of California Santa Barbara
Advisors – Profs. Craig J. Hawker and Edward J. Kramer
Aug 2001-June 2006 M.S. and Ph.D. Chemistry, Carnegie Mellon University
Advisors – Profs. Krzysztof Matyjaszewski & Tomasz Kowalewski
Sep 1993-July 1997 B.S. Polymer Science and Engineering, Nanjing University

Professional Experience

August 2022- Fred M. Weissman Palmetto Chair, University of South Carolina
August 2021- University Eminent Professor (the inaugural), University of South Carolina
May 2018- Professor (Affiliated), Biomedical Engineering Program, University of South Carolina
Jan 2017- Professor, Department of Chemistry & Biochemistry, University of South Carolina
Aug 2014-Aug 2020 College of Arts and Sciences Distinguished Professor, Department of Chemistry & Biochemistry, University of South Carolina
Aug 2014-Dec 2016 Associate Professor with Tenure, Department of Chemistry and Biochemistry, University of South Carolina
Aug 2009-July 2014 Assistant Professor, Department of Chemistry and Biochemistry, University of South Carolina
Aug 2000-May 2001 Research Assistant, Illinois Institute of Technology
Aug 1997-July 2000 Assistant Scientist, Chinese Academy of Forestry

Editors and Editorial Boards

- *Senior Editor*: Progress in Polymer Science (Elsevier, 03/2022-present)
- *Editor*: Polymer (Elsevier, 04/2019-03/2022)
- *Associate Editor*: Polymer Reviews (Taylor & Francis, 01/2018-03/2019)
- *Editorial Boards*: Science China Chemistry (2023-present), Giant (Elsevier, 2020-present), Acta Polymerica Sinica (2020-present), Macromolecules, ACS Macro Letters (2016-2019); Macromolecular Rapid Communications (2015-present), Macromolecular Chemistry and Physics (2015-present), Polymer (2016-2019), Green Materials (2015-present)

Awards and Honor

- Outreach Volunteer of the Year Award for the South Carolina Section, ACS (2023)
- ACS Committee on Education (2023-Present)

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- Special Creativity Award, National Science Foundation (2022)
- Standing Member, BMBI Study Section, National Institutes of Health (2021-2023)
- University Eminent Professorship, University of South Carolina (2021)
- President's Coin of Excellence, University of South Carolina (2021)
- Fellow, American Institute for Medical and Biological Engineering (AIMBE) (2021)
- Polymer Chemistry Pioneering Investigator Issue, Royal Society of Chemistry (2021)
- Fellow, American Association for the Advancement of Science (AAAS) (2020)
- Russell Research Award for the Science, Mathematics, and Engineering, University of South Carolina (2020)
- Fellow, Polymer Chemistry Division, American Chemical Society (2018)
- Outreach Volunteer of the Year Award for the South Carolina Section, ACS (2018)
- Kavli Fellow, National Academy of Sciences (2018)
- Advocate, the Society for Science & the Public (2018)
- Fellow, the Royal Society of Chemistry (FRSC) (2017)
- Chinese Association of Biomaterials Young Investigator Award (2017)
- Presidential Early Career Award for Scientists and Engineers (PECASE) (2017)
- SC Governor's Young Scientist Award for Excellence in Scientific Research (2016)
- Ada B. Thomas Outstanding Faculty Advisor Award Finalist (2015)
- Distinguished Undergraduate Research Mentor Award, University of South Carolina (2015)
- College of Arts and Sciences Distinguished Professorship, University of South Carolina (2014-2020)
- ACS Polymeric Materials Science & Engineering (PMSE) Young Investigator (2014)
- NIH CAM Pilot Project Award (2013)
- USC Breakthrough Rising Star (2013)
- NSF Career Award (2013-2018)
- Thieme Chemistry Journal Award (2013)
- ACS Leadership Development Award Alternate (2013)
- Emerging Investigator Issue, "*Chemical Communications*" (2013)
- ACS Committee on Project Seed (2012-2021)
- ACS PRF Doctoral New Investigator Award (2012)
- Polymer Science: The Next Generation, "*Macromol. Rapid Commun.*" (2012)
- USC Magellan Scholar Award (Undergraduate Research, 2010, 2011, 2013, 2014, 2016, 2017, 2018)
- Singapore National Research Foundation Research Fellow (2009)
- UC Santa Barbara Materials Research Outreach Program Best Poster Prize (2008)
- ACS R. A. Glenn Award Finalist (2005)
- ACS Pittsburgh Section Polymer Group Student Award (2005)

Teaching Experience

Lecture Courses

CHEM 739: Advanced Polymer Chemistry

CHEM 333: Organic Chemistry I

CHEM 633: Introduction to Polymer Chemistry

CHEM 334: Organic Chemistry II

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Research Interest

Organic polymer synthesis; sustainable polymers; metallopolymers and metallo-polyelectrolytes; polymers for biomedical and energy applications.

Books

“Sustainable Polymers from Biomass”, **Tang C.**; Ryu C. ed. Wiley-VCH, Weinheim, Germany, May 2017 (13 Chapters, 376 pages).

Book Chapters

(1) Ganewatta M.S.; **Tang C.***; Ryu C. Y. Introduction, in “*Sustainable Polymers from Biomass*”, Tang C. and Ryu C., Eds. Wiley-VCH, Weinheim, Germany, **2017**, Chapter 1, pp 1-10.

(2) Yuan L.; Wang Z.; Trenor N. M.; **Tang C.*** Preparation and Applications of Polymers with Pendant Fatty Chains from Plant Oils, in “*Sustainable Polymers from Biomass*”, Tang C. and Ryu C., Eds. Wiley-VCH, Weinheim, Germany, **2017**, Chapter 8, pp 181-208.

(3) Yan Y.; Zhang J.; **Tang C.*** Side-Chain Cobaltocenium-Containing Polymers: Controlled Polymerization and Applications, in *Controlled Radical Polymerization: Materials*, ACS Symposium Series. Matyjaszewski K. Ed. American Chemical Society: Washington, DC. **2015**, pp 15–27.

(4) Wang J.; Yao K.; Wilbon P.; Wang P.; Chu F.; **Tang C.*** Rosin-Derived Polymers and Their Progress in Controlled Polymerization, in “*Rosin-based Chemicals and Polymers*” Zhang J., Ed. ISmithers. Shawbury, UK, **2012**, pp 85-127.

(5) Kowalewski T.; **Tang C.**; Kruk M.; Dufour B.; Matyjaszewski K. Advances in Nanostructured Carbons from Block Copolymers Prepared by Controlled Radical Polymerization Techniques, in *Controlled/Living Radical Polymerization: From Synthesis to Materials*, ACS Symposium Series. Matyjaszewski K. Ed. American Chemical Society: Washington, DC. **2006**, 944, pp 295-310.

(6) Korth, B.D.; Keng, P.; Shim, I.; **Tang, C.**; Kowalewski, T.; Pyun, J. Synthesis, Assembly and Functionalization of Polymer Coated Ferromagnetic Nanoparticles, in “*Nanoparticles: Synthesis, Stabilization, Passivation and Functionalization*, ACS Symposium Series. Nagarajan R. and Hatton T. A. Eds. American Chemical Society: Washington, DC. **2008**, 996, pp 272-285.

Peer-Reviewed Journal Publications

(1) Wei X.; Wang X.; Zhang Z.; Luo Y.; Wang Z.; Xiong W.; Jain P.; Monnier J.; Wang H.; Hu T.; **Tang C.**; Albrecht H.; Liu C.* A Click Chemistry Amplified Nanopore (CAN) Assay for Ultrasensitive Quantification of HIV p24 Antigen in Clinical Samples. *Nat. Commun.* **2022**, 13, 6852.

(2) Kurnaz L. B.; Bension Y.; **Tang C.*** Facile Catalyst-Free Approach toward Fully Biobased Reprocessable Lignin Thermosets. *Macromol. Chem. Phys.* **2022**, 2200303.

(3) Kurnaz L. B.; Luo Y.; Yang X.; Alabresm A.; Leighton R.; Kumar R.; Hwang J.; Decho A. W.; Nagarkatti P.; Nagarkatti M.; **Tang C.*** Facial Amphiphilicity Index Correlating Chemical Structures with Antimicrobial Efficacy. *Bioact. Mater.* **2023**, 20, 519–527.

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- (4) Hwang J.; Martinez D. V.; Martinez E. J.; Metavarayuth G.; Goodlett D.; Ganewatta M.;* Kent M. S.;* and **Tang C.*** Highly Swellable Hydrogels Prepared from Extensively Oxidized Lignin. *Giant*, **2022**, 10, 100106.
- (5) Hwang J.; Cha Y.; Ramos L.; Zhu T.; Kurnaz L. B.; **Tang C.*** Strong Antimicrobial Metallopolymer Double-Network Hydrogels via Dual Polymerization. *Chem. Mater.* **2022**, 34, 5663-5672.
- (6) Li H.; Yang P.; Hwang J.; Pageni P.; Decho A. W.; **Tang C.*** Antifouling and Antimicrobial Cobaltocenium-Containing Metallopolymer Double-Network Hydrogels. *Biomater. Transl.* **2022**, 3, 162-171.
- (7) Li C.; Wetthasinghe S. T.; Lin H.; Zhu T.; Tang C.; Rassolov V.; **Wang Q.*** **Garashchuk S.*** Stability Analysis of Substituted Cobaltocenium [Bis(cyclopentadienyl)cobalt(III)] Employing Chemistry-Informed Neural Networks. *J. Chem. Theory Comput.* **2022**, 18, 3099-3110.
- (8) Wetthasinghe S. T.; Li C.; Lin H.; Zhu T.; Tang C.; Rassolov V.; **Wang Q.*** **Garashchuk S.*** Correlation between the Stability of Substituted Cobaltocenium and Molecular Descriptors, *J. Phys. Chem. A* **2022**, 126, 80-87.
- (9) Cha Y.; Hwang J.; Ramos L.; Lin H.; Zhu T.; **Tang C.*** Synthesis of Cationic Cobaltocenophane Monomers: Isomerization and Ring-Opening Metathesis Polymerization, *Polymer*, **2022**, 242, 124544.
- (10) Yang P.; Luo Y.; Kurnaz L.; Bam M.; Yang X.; Decho A. W.; Nagarkatti M.; **Tang C.*** Biodegradable Polycaprolactone Metallopolymer-Antibiotic Bioconjugates Containing Phenylboronic Acid and Cobaltocenium for Antimicrobial Applications. *Biomater. Sci.* **2021**, 9, 7237-7246.
- (11) Ganewatta M. S.; Wang Z.; **Tang C.*** Chemical Syntheses of Bioinspired Biomimetic Polymers toward Biobased Materials. *Nat. Rev. Chem.* **2021**, 5, 753-772.
- (12) Cha Y.; Zhu T.; Sha Y.; Lin H.; Hwang J.; Seraydarian M.; Craig S. L.; **Tang C.*** Mechanochemistry of Cationic Cobaltocenium Mechanophore. *J. Am. Chem. Soc.* **2021**, 143, 11871-11878.
- (13) Zhu T.; Lu Y.; Huang K.;* **Tang C.*** Metallopolymer as a Solid Electrolyte for Rechargeable Zn-Metal Alkaline Batteries. *ACS Mater. Lett.* **2021**, 3, 799-806.
- (14) Yuan L.; Kurnaz L.; **Tang C.*** Alternative Plastics. *Nat. Sustain.* **2021**, 4, 837-838.
- (15) Yuan L.;* **Tang C.*** Reactive Bonds for Closed-loop Chemical Processing of Polyethylene Mimics. *Chem* **2021**, 7, 847-848.
- (16) Zhang Y.; Wang Z.; Kouznetsova T. B.; Sha Y.; Xu E.; Shannahan L.; Fermen-Coker M.; **Tang C.**; Craig S. L.* Distal Conformational Locks on Ferrocene Mechanophores Guide Reaction Pathways for Increased Mechanochemical Reactivity. *Nat. Chem.* **2021**, 13, 56-62.
- (17) Wu M.; Yuan L.; Jiang F.; Zhang Y.; He Y.; You Y.; **Tang C.*** Wang Z.* Strong Autonomic Self-Healing Biobased Polyamide Elastomers. *Chem. Mater.* **2020**, 32, 8325-8332.
- (18) Abd-El-Aziz A. S.; Antonietti M.; Barner-Kowollik C.; Binder W. H.; Böker A.; Boyer C.; Buchmeiser M. R.; Cheng S. Z. D.; D'Agosto F.; Floudas G.; Frey H.; Galli G.; Genzer J.; Hartmann L.;* Hoogenboom R.; Ishizone T.; Kaplan D. L.; Leclerc M.; Lendlein A.; Liu B.; Long T. E.; Ludwigs S.; Lutz J.-F.; Matyjaszewski K.; Meier M. A. R.;* Müllen K.; Müllner M.; Rieger B.; Russell T. P.; Savin D. A.; Schlüter A. D.; Schubert U. S.; Seiffert S.; Severing K.; Soares J. B. P.; Staffilani M.;* Sumerlin

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B. S.; Sun Y.; Tang B. Z.; **Tang C.**; Théato P.; Tirelli N.; Tsui O. K. C.; Unterlass M. M.; Vana P.; Voit B.; Vyazovkin S.; Weder C.; Wiesner U.; Wong W.- Y.; Wu C.; Yagci Y.; Yuan J.; Zhang G. The Next 100 Years of Polymer Science. *Macromol. Chem. Phys.* **2020**, 221, 2000216 (Editorial, 22 pages).

(19) Zhu T.; **Tang C.*** Crosslinked Metallo-Polyelectrolytes with Enhanced Flexibility and Dimensional Stability for Anion-Exchange Membranes. *Polym. Chem.* **2020**, 11, 4542-4546. the 2021 Polymer Chemistry Pioneering Investigators Issue.

(20) Zhang T.; Zhu T.; Dickerson S.; **Tang C.***; Wiskur S. L.* Polymer Compositions on Kinetic Resolutions of Secondary Alcohols Using Polymer-Supported Silyl Chlorides. *Polym. Chem.* **2020**, 11, 5011-5018.

(21) Nan J.; Zhang G.; Zhu T.; Ma Y.; Wang Z.; Wang L.; Wang H.; Chu F.; Wang C.*; **Tang C.*** A Highly Elastic and Fatigue-Resistant Natural Protein-Reinforced Hydrogel Electrolyte for Reversible-Compressible Solid-State Supercapacitors. *Adv. Sci.* **2020**, 7, 2000587.

(22) Li J.; Wang Z.; Hua Z.*; **Tang C.*** Supramolecular Nucleobase-Functionalized Polymers: Synthesis and Potential Biological Applications. *J. Mater Chem. B* **2020**, 8, 1576 - 1588.

(23) Zhu T.; Sha Y.; Adabi H.; Peng X.; Cha Y.; Smith M. D.; Dissanayake M. M.; Vannucci A. K.; Mustain W. E.; **Tang C.*** Rational Synthesis of Metallo-Cations Toward Redox- and Alkaline-Stable Metallo-Polyelectrolytes. *J. Am. Chem. Soc.* **2020**, 142, 1083-1089.

(24) Rahman M. A.; Jui M. S.; Bam M.; Luat E.; Alabresm A.; Nagarkatti M.; Decho A. W.; **Tang C.*** Facial Amphiphilicity-Induced Polymer Nanostructures for Antimicrobial Applications. *ACS Appl. Mater. Interfaces*, **2020**, 12, 21221-21230.

(25) Wang Z.; Ganewatta M.; **Tang C.*** Sustainable Polymers from Biomass: Bridging Chemistry with Materials and Processing. *Prog. Polym. Sci.* **2020**, 101, 101197. Celebrating the 100th Anniversary of Hermann Staudinger's 'Macromolecular Hypothesis'.

(26) Zhu T.; Zhang J.*; **Tang C.*** Metallo-Polyelectrolytes: Correlating Macromolecular Architectures with Properties and Applications. *Trends Chem.* **2020**, 2, 227-240.

(27) Rahman M. A.; Cha Y.; Pageni P.; Zhu T.; Jui M. S.; **Tang C.*** Polymerization-Induced Self-assembly of Metallo-Polyelectrolyte Block Copolymers. *J. Polym. Sci. Polym. Chem.* **2020**, 58, 77-83. Special Issue celebrating the 70th birthday of Krzysztof Matyjaszewski

(28) Sha Y.*; Zhu T.; Cha Y.; Hwang J.; **Tang C.*** Synthesis of Site-specific Charged Metallopolymers via Reversible Addition-Fragmentation Chain Transfer (RAFT) Polymerization. *Polymer*, **2020**, 187, 122095.

(29) Rahman M. A.; Sha Y.; Jui M. S.; Lamm M. E.; Ma Y.; **Tang C.*** Facial Amphiphilicity-Induced Self-Assembly (FAISA) of Amphiphilic Copolymers. *Macromolecules*, **2019**, 52, 9526-9535.

(30) Lamm M. E.; Song L.; Wang Z.; Rahman M. A.; Lamm B.; Fu L.; **Tang C.*** Tuning Mechanical Properties of Biobased Polymers by Supramolecular Chain Entanglement. *Macromolecules*, **2019**, 52, 8978-8986.

(31) Lamm M. E.; Song L.; Wang Z.; Lamm B.; Fu L.; **Tang C.*** A Facile Approach to Thermomechanically Enhanced Biobased Fatty Acid-Containing Polymers through Metal-Ligand Coordination. *Polym. Chem.* **2019**, 10, 6570-6579. **Inside Front Cover**

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- (32) Ganewatta M. S.*; Lokupitiya H. N.; **Tang C.*** Lignin Biopolymers in the Age of Controlled Polymerization. *Polymers*, **2019**, 11, 1176.
- (33) Sha Y.; Rahman M. A.; Zhu T.; Cha Y.; McAlister C. W.; **Tang C.*** ROMPI-CDSA: Ring-Opening Metathesis Polymerization Induced-Crystallization-Driven Self-Assembly of Metallo-Block Copolymers. *Chem. Sci.* **2019**, 10, 9782-9787.
- (34) Cha Y.; Jarrett-Wilkins C.; Rahman M. A.; Zhu T.; Sha Y.; Manners I.*; **Tang C.*** Crystallization-Driven Self-Assembly of Metallo-Polyelectrolyte Block Copolymers with a Polycaprolactone Core-Forming Segment. *ACS Macro Lett.* **2019**, 8, 835-840.
- (35) Sha Y.; Zhang Y.; Xu E.; McAlister C. W.; Zhu T.; Craig S. L.*; **Tang C.*** Generalizing Metallocene Mechanochemistry to Ruthenocene Mechanophores. *Chem. Sci.* **2019**, 10, 4959-4965. **Outside Back Cover**
- (36) Lamm M. E.; Li P.*; Hankinson S.; Zhu T.; **Tang C.*** Plant Oil-Derived Copolymers with Remarkable Post-Polymerization Induced Mechanical Enhancement for High Performance Coating Applications. *Polymer*, **2019**, 174, 170-177.
- (37) Song L.; Zhu T.; Yuan L.; Zhou J.; Zhang Y.; Wang Z.*; **Tang C.*** Ultra-strong Long-Chain Polyamide Elastomers with Programmable Supramolecular Interactions and Oriented Crystalline Microstructures. *Nat. Commun.* **2019**, 10, 1315.
- (38) Kopeć M.; Lamson M.; Yuan R.; **Tang C.**; Kruk M.; Matyjaszewski K.; Kowalewski T. Polyacrylonitrile-Derived Nanostructured Carbon Materials. *Prog. Polym. Sci.* **2019**, 92, 89-134.
- (39) Yang P.; Pageni P.; Bam M.; Zhu T.; Chen P.; Nagarkatti M.; Decho A. W.; **Tang C.*** Gold Nanoparticles with Antibiotic-Metallopolymers toward Broad-Spectrum Antibacterial Effect. *Adv. Healthcare Mater.* **2019**, 8, 1800854.
- (40) Yuan L.; Wang Z.; Wang Z.; Xu Y.; Han Y.; **Tang C.*** Plant Oil and Lignin-Derived Elastomers via Thermal Azide-Alkyne Cycloaddition Click Chemistry. *ACS Sustain. Chem. Eng.* **2019**, 7, 2593-2601.
- (41) Rahman M. A.; Bam M.; Luat E.; Jui M. S.; Shokfai T.; Nagarkatti M.; Decho A. W.; **Tang C.*** Macromolecular-Clustered Facial Amphiphilic Antimicrobials. *Nat. Commun.* **2018**, 9, 5231.
- (42) Sha Y.; Zhang Y.; Zhu T.; Zhang Y.; Tan S.; Craig S. L.*; **Tang C.*** Ring-Closing Metathesis and Ring-Opening Metathesis Polymerization Toward Main-Chain Ferrocene-Containing Polymers. *Macromolecules*, **2018**, 51, 9131-9139.
- (43) Sha Y.; Zhang Y.; Xu E.; Wang Z.; Zhu T.; Craig S. L.*; **Tang C.*** Quantitative and Mechanistic Mechanochemistry in Ferrocene Dissociation. *ACS Macro Lett.* **2018**, 7, 1174-1179.
- (44) Tan S.; Sha Y.; Zhu T.; Rahman M. A.; **Tang C.*** Photoresponsive Supramolecular Polymers Based on Quadruple Hydrogen-Bonding and a Photochromic Azobenzene Motif. *Polym. Chem.* **2018**, 9, 5395 - 5401.
- (45) Zhu T.; Sha Y.; Yan J.; Pageni P.; Rahman M. A.; Yan Y.; **Tang C.*** Metallo-Polyelectrolytes as A Class of Ionic Polymers for Functional Materials. *Nat. Commun.* **2018**, 9, 4329.
- (46) Pageni, P.; Yang P.; Bam M.; Zhu T.; Chen Y. P.; Decho A. W.; Nagarkatti M.; **Tang C.*** Recyclable Magnetic Nanoparticles Grafted with Antimicrobial Metallopolymer-Antibiotic Bioconjugates, *Biomaterials*, **2018**, 178, 363-372.
- (47) Lamm M. E.; Wang Z.; Zhou J.; Yuan L.; Zhang X.; **Tang C.*** Sustainable Epoxy

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Resins Derived from Plant Oils with Thermo- and Chemo-Responsive Shape Memory Behavior, *Polymer*, **2018**, 144, 121-127.

(48) Ganewatta M. S.; Rahman M. A.; Mercado L.; Shokfai T.; Decho A. W.; Reineke T. M.; **Tang C.*** Facially amphiphilic polyionene biocidal polymers derived from lithocholic acid. *Bioact. Mater.* **2018**, 3, 186-193.

(49) Qiao Y.; Yin X.; Zhu T.; Li H.; **Tang C.*** Dielectric Polymers with Novel Chemistry, Compositions and Architectures, *Prog. Polym. Sci.* **2018**, 80, 153-162.

(50) Zhu T.; Xu S.; Rahman Md. A.; Dogdibegovic E.; Yang P.; Pageni P.; Kabir Md P.; Zhou X.; **Tang C.*** Cationic Metallo-Polyelectrolytes for Robust Alkaline Anion-Exchange Membranes. *Angew. Chem. Int. Ed.*, **2018**, 57, 2388-2392. **Inside Back Cover**

(51) Pageni, P.; Yang P.; Chen Y. P.; Huang Y.; Bam M.; Zhu T.; Nagarkatti M.; Benicewicz B. C.; Decho A. W.; **Tang C.*** Charged Metallopolymer-Grafted Silica Nanoparticles for Antimicrobial Applications. *Biomacromolecules* **2018**, 19, 417-425.

(52) Booth W. T.; Schlachter C.; Pote S.; Ussin N.; Mank N. J.; Klapper V.; Offermann L. R.; **Tang C.**; Hurlburt B. K.; Chruszcz M.* The Impact of an N-terminal Poly-Histidine Tag on Protein Thermal Stability. *ACS Omega*, **2018**, 3, 760-768.

(53) Xu S.; Lamm M. E.; Rahman M. A.; Zhang X.; Zhu T.; **Tang C.*** Renewable Atom-Efficient Polyesters and Thermosetting Resins Derived from High Oleic Soybean Oil. *Green Chem.* **2018**, 20, 1106-1113.

(54) Yang P.; Bam M.; Pageni, P.; Zhu T.; Chen Y. P.; Nagarkatti M.; Decho A. W.; **Tang C.*** Trio Act of Boronolectin with Antibiotic-Metal Complexed Macromolecules toward Broad-Spectrum Antimicrobial Efficacy. *ACS Infect. Dis.* **2017**, 3, 845-853.

(55) Song L.; Wang Z.; Lamm M. E.; Yuan L.; **Tang C.*** Supramolecular Polymer Nanocomposites Derived from Plant Oils and Cellulose Nanocrystals, *Macromolecules*, **2017**, 50, 7475-7483.

(56) Wang Z.;* Yuan L.; **Tang C.*** Sustainable Elastomers from Renewable Biomass, *Acc. Chem. Res.* **2017**, 50, 1762-1773.

(57) Ding W.; Wang S.; Yao K.; Ganewatta M.; **Tang C.***; Robertson M.* Physical Behavior of Triblock Copolymer Thermoplastic Elastomers Containing Sustainable Rosin-Derived Polymethacrylate Endblocks, **2017**, *ACS Sustainable Chem. Eng.* 5, 11470-11480.

(58) Merhpouya-Bahrami P.; Chitrala K.; Ganewatta M. S.; **Tang C.**; Murphy E. A.; Enos R.; Velazquez K.; McCellan J.; Nagarkatti M.* Blockade of CB1 cannabinoid receptor alters gut microbiota and attenuates inflammation and diet-induced obesity, *Sci. Rep.* **2017**, 15645.

(59) Chitrala K.; Guan H.; Singh N.; Busbee B.; Gandy A.; Bahrami P.; Ganewatta M.; **Tang C.**; Nagarkatti P.;* Nagarkatti M.* CD44 deletion leading to attenuation of EAE results from alterations in gut microbiome and short-chain fatty acids, *Eur. J. Immunol.* **2017**, 47, 1188-1199.

(60) Li H.; Yang P.; Pageni P.; **Tang C.*** Recent Advances in Metal-Containing Polymer Hydrogels, *Macromol. Rapid Commun.* **2017**, 38, 1700109 (Review article).

(61) Wang Z.; Yuan L.; Ganewatta M.; Rahman M. A.; Wang J.; Liu S.; **Tang C.*** Plant Oil-Derived Epoxy Polymers toward Sustainable Biobased Thermosets, *Macromol. Rapid Commun.* **2017**, 38, 1700009.

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- (62) Pageni P.; Kabir P.; Yang P.; **Tang C.*** Binding of Cobaltocenium-containing Polyelectrolytes with Anionic Probes, *J. Inorg. Organomet. Polym. Mater.* **2017**, *27*, 1100-1109. Invited article for a special issue in honour of Professor Pierre D. Harvey.
- (63) Ganewatta M.; Rahman A.; **Tang C.*** Emerging Antimicrobial Research against Superbugs: Perspectives from a Polymer Laboratory, *Journal of the South Carolina Academy of Science*, **2017**, *15*, 8-11. 2016 Governor's Young Scientist Award for Excellence in Scientific Research for a Governor's Awards Issue.
- (64) Rahman M. A.; Lokupitiya H.; Ganewatta M.; Yuan L.; Stefik M.; **Tang C.*** Designing Block Copolymer Architectures toward Tough Bioplastics from Natural Rosin, *Macromolecules*, **2017**, *50*, 2069-2077.
- (65) Yang P.; Luo X.; Wang S.; Jin S.; Wang F.; Guo J.; **Tang C.**; Wang C.* Biodegradable Yolk-Shell Microspheres for Ultrasound/MR Dual-Modality Imaging and Controlled Drug Delivery, *Colloids Surf. B Biointerfaces*, **2017**, *151*, 333-343.
- (66) Yuan L.; Wang Z.; Ganewatta M.; Rahman M. A.; Lamm M.; **Tang C.*** A Biomass Approach to Mendable Bio-Elastomers, *Soft Matter*, **2017**, *13*, 1306-1313.
- (67) Yang P.; Pageni P.; Kabir P.; Zhu T.; **Tang C.*** Metallocene-containing Homopolymers and Heterobimetallic Block Copolymers via Photo-induced RAFT Polymerization. *ACS Macro Lett.* **2016**, *5*, 1293-1300.
- (68) Wang J.; Yuan L.; Wang Z.; Rahman M. A.; Huang Y.; Zhu T.; Wang R.; Cheng J.; Wang C.; Chu F.; **Tang C.*** Photoinduced Metal-Free Atom Transfer Radical Polymerization of Biomass Based Monomers. *Macromolecules*, **2016**, *49*, 7709-7717.
- (69) Ganewatta M. S.; Ding W.; Rahman M. A.; Yuan L.; Wang Z.; Hamidi N.; Robertson M. L.*; **Tang C.*** Biobased Plastics and Elastomers from Renewable Rosin via "Living" Ring-Opening Metathesis Polymerization, *Macromolecules*, **2016**, *49*, 7155-7164.
- (70) An S. Y.; Hong S. W.; **Tang C.**; Oh J. W. Rosin-based Block Copolymer Intracellular Delivery Nanocarriers with Reduction-Responsive Sheddable Coronas for Cancer Therapy. *Polym. Chem.* **2016**, *7*, 4751-4760.
- (71) Xu Y.; Yuan L.; Wang Z.; Wilbon P.; Wang C.; Chu F.*; **Tang C.*** Lignin and Soy Oil-Derived Polymeric Biocomposites by "Grafting from" RAFT Polymerization. *Green Chem.* **2016**, *18*, 4974-4981.
- (72) Lu L.; Yuan L.; Yan J.; **Tang C.***; Wang Q.* , Development of core-shell nanostructures by in situ assembly of pyridine-grafted diblock copolymer and transferrin for drug delivery applications. *Biomacromolecules*, **2016**, *17*, 2321-2328.
- (73) Yin X.; Qiao Y.; Gadinski M. R.; Wang Q.; **Tang C.*** Flexible Thiophene Polymers: A Concerted Macromolecular Architecture for Dielectrics. *Polym. Chem.* **2016**, *7*, 2929-2933. **Back Cover**
- (74) Yan Y.; Zhang J.; Ren L.; **Tang C.*** Metal-Containing and Related Polymers for Biomedical Applications. *Chem. Soc. Rev.* **2016**, *45*, 5232-5263. **Front Cover**
- (75) Yuan L.; Wang Z.; Trenor N. M.; **Tang C.*** Amidation of Triglycerides by Amino Alcohols and Their Impact on Plant Oil-Derived Polymers. *Polym. Chem.* **2016**, *7*, 2790-2798. **Front Cover**
- (76) Wang Z. K.; Zhang Y.; Yuan L.; Hayat J.; Trenor N. M.; Lamm M.; Vlaminck L.; Billiet S.; Du Prez F. E.; Wang Z. G.; **Tang C.*** Biomass Approach toward Robust, Sustainable Multiple Shape-Memory Materials, *ACS Macro Lett.* **2016**, *5*, 602-606.

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- (77) Wang Z. K.; Yuan L.; Jiang F.; Zhang Y.; Wang Z. G.;* **Tang C.*** Bioinspired High Resilient Elastomers to Mimic Resilin, *ACS Macro Lett.* **2016**, 5, 220–223.
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