

YONG-CHENG SHI

EDUCATION

B.S. Chemical Engineering 1984 Zhejiang University (China)
M.S. Grain Science 1989 Kansas State University
Ph.D. Grain Science 1993 Kansas State University

PROFESSIONAL EXPERIENCE

2011 - Professor, Department of Grain Science and Industry, Kansas State University
2006 – 2010 Associate Professor, Department of Grain Science and Industry, Kansas State University
2004 – 2005 Principal Business Scientist, National Starch & Chemical Company
2001 – 2004 Research Manager, National Starch & Chemical Company
1996 – 2000 Senior Project Supervisor, National Starch & Chemical Company
1994 – 1996 Project Supervisor, National Starch & Chemical Company

AWARDS & LECTURESHIP

- **Awards Received at National Starch & Chemical Company**
 - ICI Icest (Innovation, Creativity, Excellence in Science and Technology) Award (inventor and team member), 2004.
 - BeSCCo Innovation Award (team member), 2002 and 2003
 - Patent Recognition Award (cash award for patented product achieved sales greater than one million dollar), 2002. The product achieved over \$10 million sales in 2003.
 - Technical Differentiation Program Award, Food Starch Division, 2001 and 2002.
 - Member of two Million Dollar Club (accumulative sales of new, patented product greater than one million dollars), 1999 and 2001.
- **Industry Recognition Awards** for NOVELOSE Resistant Starch Product (inventor and core team member)
 - IFT - Industry Achievement Award, 2003
 - Food Ingredients South America – Most Innovative Food Ingredient, 2002
- **Belfort Lecturer**, Whistler Center for Carbohydrate Research, Purdue University, 2015
- **Phil Williams Applied Research Award**, AACC International, 2016
- **Fellow**, AACC International, 2016
- **Professorial Performance Award**, Kansas State University, 2018

COURSE TEACHING AT Kansas State University

GRSC 901 Starch Chemistry and Technology, Graduate Level, 2006-present
GRSC 902 Carbohydrates in Food, Graduate Level, 2006-present
GRSC 915 Advanced Cereal Chemistry, Graduate Level, 2009-2015 (team teaching, coordinator and instructor)

PROFESSIONAL ACTIVITIES:

Advisory Board Member, *Starch* journal, 2005-present
Editorial Board Member, *Carbohydrate Polymers*, 2020-present
Associate Editor, *Cereal Chemistry*, 2006-2013

Editorial Board Member of *Food Digestion*, 2009-2015
Member of Executive Committee, Starch Round Table (2010-present)
Chair of Technical Program, Starch Round Table (2013)
Chair of Executive Committee, Starch Round Table (2015)
Chair, Carbohydrate Division, AACC International (2013-2014)

Course Director, *Food Starch Technology*, The Center for Professional Advancement, 2005-2013.

U.S. PATENTS

1. Y. C. Shi and Y. Bai, Starch esters and the method of preparation, US Patent 9,458,252 B2 (Oct. 4, 2016).
2. Cui, Xiaoyuan, Cimeciolu, A. L., Shi, Yong-Cheng. US Patent 7,138,035 (Nov. 21, 2006), Process for the selective modification of carbohydrates by peroxidase catalyzed oxidation.
3. Shi, Yong-Cheng; Cui, Xiaoyuan M.; Birkett, Anne G.; Thatcher, Michael, US Patent 7,081,261 (July 25, 2006), Resistant starch prepared by isoamylase debranching of low amylose starch.
4. Shi, Yong-Cheng, Liu, Yayun, Billmers, Robert L., Stoop, Russell, Huang, David, US Patent 7,070,822 (July 4, 2006), Powdered adhesive for foods.
5. Shi, Yong-Cheng; Cui, Xiaoyuan M.; Birkett, Anne G.; Thatcher, Michael. US Patent # 6,929,817 (August 16, 2005), Slowly digestible starch product.
6. Y.-C. Shi, C.-W. Chiu, D.P. Huang, and D. Janik. US Patent # 6,896,915 (May 24, 2005), Use of converted low viscosity, high solids starch in foods.
7. Shi, Yong-Cheng; Cui, Xiaoyuan M.; Birkett, Anne G.; Thatcher, Michael. US Patent # 6,890,571 (May 10, 2005). Slowly digestible starch product.
8. Y.-C. Shi and R. Jeffcoat. US Patent # 6,664,389 (Dec. 16, 2003), Highly resistant granular starch.
9. Y.-C. Shi, G. Jennifer, and R. Jeffcoat. US Patent # 6,277,186 (Aug. 21, 2001), Thermally – Inhibited starch prepared with oligosaccharides.
10. Y.-C. Shi, J.L. Eden, and J. Kasica. US Patent # 6,096,524 (Aug. 1, 2000), Chemically derived maltodextrins.
11. Y.-C. Shi, J.L. Eden, J.J. Kasica, and R. Jeffcoat. US Patent # 6,054,302 (April. 25, 2000). High solids, single phase process for preparing enzyme-converted starches.
12. J. L. Eden, Y.-C. Shi, R. J. Nesiewicz, and J. Wiczorek. US Patent # 5,932,639 (Aug. 3, 1999). Maltodextrin-Based Adhesives.
13. C.-W. Chiu, Y.-C. Shi, and M. Sedam. US Patent # 5,902,410 (May 11, 1999). Process for producing amylase resistant starch granular starch.
14. Y.-C. Shi, J.L. Eden, and J.J. Kasica. US Patent # 5,795,397 (Aug. 18, 1998). Chemically derivatized maltodextrins.
15. J. L. Eden, Y.-C. Shi, R. J. Nesiewicz, and J. Wiczorek. US Patent # 5,688,845 (Nov. 18, 1997). High solids, maltodextrin-based adhesives.
16. Y.-C. Shi and P. T. Trzasko. US Patent # 5,593,503 (Jan. 14, 1997). Process for producing amylase resistant granular starch.

PENDING US PATENT APPLICATIONS

1. Shi, Y. C., & Sun, Z. US Patent Application No. 16/220,578 (Dec. 14, 2018). Degraded Hydroxyalkylated Starches and Methods of Preparation.
2. Shi, Y. C., Bai, Y., & Sun, Z. US Patent Application No.: 62/786,021 (December 28, 2018). Alpha-amylase-degraded Octenylsuccinate Substituted Starches and Methods of Preparing the Same.
3. Y.C. Shi and C. Li, Granule swelling and starch saccharification, 2015, CN 104694596 A.
4. Y. C. Shi and L. Cai, Starch spherulites with controlled enzyme digestibility. WO 2014 / 081807.
5. Y. C. Shi, Non-cohesive waxy flour and the method of preparation, 2009 / 0041918 A1.
6. Y.C. Shi and Y. Sang, Sorghum flour with high resistant starch content and the method of preparation (A provisional patent application was filed in Sept. 2007).
7. Shariff, Roxanna, Bindzus, Wolfgang, Shi, Yong-Cheng, Shah, Tarak, Green, Vincent. Rice flour composition with enhanced process tolerance and solution stability. Filed June, 2005.
8. Okoniewska, Monika K., Bindzus, Wolfgang, Brown, Ian, Skorge, Robert A., Yong-Cheng Shi, Shan, Tarak J. Flour composition with increased total dietary fiber, process of making, and uses thereof. Filed April 2005.
9. Shi, Yong-Cheng; Cui, Xiaoyuan; Chakrabarti, Siby, US Patent 20030215499 A1, Use of completely linear short chain alpha-glucans as a pharmaceutical excipient.
10. Cui, Xiaoyuan; Cimecioglu, A. Levent; Shi, Yong-Cheng, US Patent 20030029588 A1, Process for the selective modification of carbohydrates by peroxidase catalyzed oxidation.
11. Shi, Yong-Cheng; Liu, Yayun, US Patent 20020197373 A1, Cereal grains with high total dietary fiber and/or resistant starch content and their preparation thereof.
12. Billmers, Robert L, Shi, Yong-Cheng, Dihl, Deborah L., Starches for reduced fat in fried foods systems. Filed in Aug. 2003.

BOOK:

Y. C. Shi and C. C. Maningat (eds), Resistant Starch: Sources, Applications and Health Benefits, 2013, Wiley Blackwell.

PUBLICATIONS (*graduate student / research associate directly supervised by Dr. Shi; **corresponding author)

1. R. Shukri*, S. Alavi, H. Dogan, Y.-C. Shi**, Properties of extruded cross-linked waxy maize starches and their effects on extruded oat flour, *Carbohydrate Polymers*, 2021, 253, 117259.
2. W. Zhang*, L. Li, Z. Shu, P. Wang, X. Zeng, W. Shen, W. Ding**, Y.-C. Shi**, Properties of flour from pearled wheat kernels as affected by ozone treatment, *Food Chemistry*, 2021, 341, 128203.
3. W. Weil*, R. C. Weil, S. Keawsompong, K. Sriroth, P. A. Seib, Y.-C. Shi**, Pyrodextrins from waxy and normal tapioca starches: Molecular structure and *in vitro* digestibility. *Carbohydrate Polymers*, 2021, 252, 117140.
4. C.-F. Hsieh, L.-K. Wang, B. Xu, P. A Seib and Y.-C. Shi, Preparation and textural

- properties of white salted noodles made with hard red winter wheat flour partially replaced by different levels of cross-linked phosphorylated RS4 wheat starch. *J. Sci. Food Agric.*, 2020.
5. A. L. Mense*, C. Zhang, J. Zhao, Q. Liu, Y.-C. Shi**, Physical aspects of the biopolymer matrix in wheat bran and its dissected layers. *Journal of Cereal Science*, 2020, 95, 103002.
 6. Z. Chen, Q. Huang, Q. Xia, B. Zha, J. Sun, B. Xu, Y.-C. Shi, Intact endosperm cells in buckwheat flour limit starch gelatinization and digestibility *in vitro*. *Food Chemistry*, 2020, 330, 127318.
 7. W. Wang*, Y.-C. Shi**, Gelatinization, pasting and retrogradation properties of hydroxypropylated normal wheat, waxy wheat, and waxy maize starches. *Food Hydrocolloids*, 2020, 106, 105910.
 8. W. Weil*, R. C. Weil, S. Keawsompong, K. Sriroth, P. A. Seib, Y.-C. Shi**, Pyrodextrin from waxy and normal tapioca starches: Physicochemical properties, *Food Hydrocolloids*, 2020, 104, 105745.
 9. J. Xu*, T. D. Andrews, and Y.-C. Shi**, Recent Advances in the Preparation and Characterization of Intermediately to Highly Esterified and Etherified Starches: A Review, *Starch*, 2020, 1900238.
 10. W. Wang*, Y.-C. Shi**, Gelatinization, pasting and retrogradation properties of hydroxypropylated normal wheat, waxy wheat, and waxy maize starches, *Food Hydrocolloids*, 2020, 106, 105910.
 11. C. Li, D. Zhou, T. Fan, M. Wang, M. Zhu, J. Ding, X. Zhu, W. Guo**, Y.-C. Shi**, Structure and physicochemical properties of two waxy wheat starches, *Food Chemistry*, 2020, 318, 126492.
 12. Z. Sun*, Z. Chen, B. Xu, Y.-C. Shi**, Distribution of octenylsuccinate substituents within a single granule of modified waxy maize starch determined by Raman microspectroscopy, *Carbohydrate Polymers*, 2019, 216, 282-286.
 13. J. Xu*, Y. C. Shi**, Position of acetyl groups on anhydroglucose unit in acetylated starches with intermediate degrees of substitution, *Carbohydrate Polymers*, 2019, 220, 118-125.
 14. Z. Tong*, X. Zheng, Y. Tong, Y.C. Shi, J. Sun**, Systems metabolic engineering for citric acid production by *Aspergillus niger* in the post-genomic era. *Microbial Cell Factories*, 2019, 18:28.
 15. Z. Tong*, Y. Tong, Y.C. Shi, Partial swelling of granules enables high conversion of normal maize starch to glucose catalyzed by granular starch hydrolyzing enzyme. *Industrial Crops & Products*, 2019, 140, 111626.
 16. W. Wang*, Z. Sun*, Y. C. Shi**. An improved method to determine the hydroxypropyl content in modified starches by ¹H NMR. *Food Chemistry*, 2019, 295, 556-562.
 17. C.-F. Hsieh*, W. Liu, J. K. Whaley, Y.-C. Shi**, Structure and functional properties of

- waxy starches, *Food Hydrocolloids*, 2019, 94, 238-254.
18. J. Kang*, Q. Guo, Y.-C. Shi**, NMR and methylation analysis of hemicellulose purified from corn bran, *Food Hydrocolloids*, 2019, 94, 613-621.
 19. J. Shi*, Z. Sun*, Y.-C. Shi**, Improved in vitro assay of resistant starch in cross-linked phosphorylated starch, *Carbohydrate Polymers*, 2019, 210, 210-214.
 20. C.-F. Hsieh*, W. Liu, J. K. Whaley, Y.-C. Shi**, Structure, properties, and potential applications of waxy tapioca starches – A review, *Trends in Food Science & Technology* 2019, 83, 225-234.
 21. Z. Li*, D. Wang, and Y.-C. Shi**, High-solids bioconversion of maize starch to sugars and ethanol, *Starch*, 2019, 71, 1800-1812.
 22. B. Xu*, A. Mense*, K. Ambrose, R. Graybosch, Y.-C. Shi**, Milling performance of waxy wheat and wild-type wheat using two laboratory milling methods, *Cereal Chemistry*, 2018, 95, 708-719.
 23. R.C. Kaufman, J.D. Wilson, S.R. Bean, A.L. Galant, R.R. Perumal, T. Tesso, T. Herald, and Y.-C. Shi, Influence of genotype x location interaction on grain sorghum grain chemistry and digestibility. *Agronomy Journal*, 2018, 110, 1681-1688.
 24. J. Gupta, P. V. Vadlani, C.-S. Lau, R. L. Madl, and Y.-C. Shi, Innovative zein extraction from distillers' grains with solubles: process development and product characterization studies. *Environmental Progress & Sustainable Energy*, 2018.
 25. W. Wang*, L. Guan, P.-A. Seib, Y.-C. Shi**, Settling volume and morphology changes in cross-linked and unmodified starches from wheat, waxy wheat, and waxy maize in relation to their pasting properties, *Carbohydrate Polymers*, 2018, 196, 18-26.
 26. R. R. Bhattarai, S. Dhital, A. Mense, M. J. Gidley, Y.-C. Shi**, Intact cellular structure in cereal endosperm limits starch digestion in vitro, *Food Hydrocolloids*, 2018, 81, 139-148.
 27. J. Shi*, M. C. Sweedman, Y.-C. Shi**, Structural changes and digestibility of waxy maize starch debranched by different levels of pullulanase, *Carbohydrate Polymers*, 2018, 194, 350-356.
 28. J. Kang*, Q. Guo, Y.-C. Shi**, Molecular and conformational properties of hemicellulose fiber gum from dried distillers grains with solubles, *Food Hydrocolloids*, 2018, 80, 53-59.
 29. W. Kupkanchanakul, M. Thongngam, Y.-C. Shi, O. Naivikul, Role of amylolytic activities during pregermination on rice kernel morphology and physicochemical properties of isolated starch, *Cereal Chemistry*, 2018, 95, 543-554.
 30. A. L. Mense and Y.-C. Shi, Dissolution of wheat bran by NaOH/urea solutions and structure of soluble materials, *ACS Sustainable Chemistry & Engineering*, 2018, 6, 4264-4271.
 31. Y. Cao, X. Chen, Y. Sun, J. Shi*, X. Xu**, Y.-C. Shi**, Hypoglycemic effects of pyrodextrins with different molecular weights and digestibilities in mice with diet-induced obesity, *J. Agric. Food Chem.*, 2018, 66, 2988-2995.

32. Z.-G. Luo*, Y.-C. Shi**, Distribution of acetyl groups in acetylated waxy maize starches prepared in aqueous solution with two different alkaline concentrations, *Food Hydrocolloids*, 2018, 79, 491-497.
33. T.-H. Vu*, S. Bean, C.-F. Hsieh and Y.-C. Shi**, Changes in protein and starch digestibility in sorghum flour during heat-moisture treatment, *J. Sci. Food Agric.*, 2017, 97, 4770-4779.
34. M. Iacovou, J. Lim, C.C. Maningat, A. Bogatyrev, E. Ly, S. Dhital, M.J. Gidley, Y.-C. Shi, J. Muir, P.A. Seib, *In vivo* digestibility of cross-linked phosphorylated (RS4) wheat starch in ileostomy subjects, *Bioactive Carbohydrates and Dietary Fibre*, 2017, 12, 25-36.
35. Han, X.*, Kang, J., Bai, Y., Xue, M., Shi, Y.-C.**, Structure of pyrodextrin in relation to its retrogradation properties, *Food Chemistry*, 2018, 242, 169-173.
36. C.-Y. Li*, A. L. Mense, L. R. Brewer, C. Lau, Y.-C. Shi**, *In vitro* bile acid binding capacity of wheat bran with different particle sizes, 2017, *Cereal Chemistry*, 94, 654-658.
37. R. C. Kaufman*, J. D. Wilson, S. R. Bean, F. Xu, Y.-C. Shi, Sorghum starch properties as affected by growing season, hybrid, and kernel maturity, *J. Cereal Science*, 2017, 74, 127-135.
38. R. Shukri*, Y.-C. Shi**, Structure and pasting properties of alkaline-treated phosphorylated cross-linked waxy maize starches, *Food Chemistry*, 2017, 214, 90-95.
39. J. Xu*, W. Zhang, K. Adhikari, Y.-C. Shi**, Determination of volatile compounds in heat-treated straight-grade flours from normal and waxy wheats, *J. Cereal Science*, 2017, 74, 77-83.
40. Y. Bai*, Y.-C. Shi**, Chemical structures in pyrodextrin determined by nuclear magnetic resonance spectroscopy, *Carbohydrate Polymers*, 2016, 151, 426-433.
41. S. Sittipod*, Y.-C. Shi**, Changes in physicochemical properties of rice starch during steeping in the parboiling process, *Journal of Cereal Science*, 2016, 69, 398-405.
42. S. Sittipod*, Y.-C. Shi**, Changes of starch during parboiling of rice kernels, *Journal of Cereal Science*, 2016, 69, 238-244.
43. G. Qi, N. Li, X. S. Sun, Y.-C. Shi, D. Wang, Effects of glycerol and nanoclay on physicochemical properties of camelina gum-based films. *Carbohydrate Polymers*, 2016, 152, 747-754.
44. Z. Li*, D. Wang, Y.-C. Shi**, Effects of nitrogen source on ethanol production in very high gravity fermentation of corn starch, *Journal of the Taiwan Institute of Chemical Engineers*, 2016, 1-7.
45. R. Shukri*, L. Zhu*, P. A. Seib, C. Maningat, Y.-C. Shi**, Direct in-vitro assay of resistant starch in phosphorylated cross-linked starch, *Bioactive Carbohydrates and Dietary Fibre*, 2015, 5, 1-9.
46. R. C. Kaufman, J. D. Wilson, S. R. Bean, T. J. Herald, Y.-C. Shi, Development of a 96-well plate iodine binding assay for amylose content determination. *Carbohydrate Polymers*.

- 2015, 115, 444-447.
47. L. R. Brewer*, C. Weber, M. Haub, L. Cai*, and Y.-C. Shi**, Glycemic Response and Fermentation of Crystalline Short Linear α -Glucans from Debranched Waxy Maize Starch, *J. Agricultural and Food Chemistry*, 2015, 63, 9528–9535.
 48. S. K. Garimella Purna*, Y.-C. Shi**, L. Guan*, J. D. Wilson, and R. A. Graybosch, Factors Governing Pasting Properties of Waxy Wheat Flours, *Cereal Chem.*, 2015, 92, 529-535.
 49. N. Grewal*, J. Faubion, G. Feng, R. C. Kaufman, J. D. Wilson, and Y.-C. Shi**, Structure of Waxy Maize Starch Hydrolyzed by Maltogenic α -Amylase in Relation to Its Retrogradation, , *J. Agric. and Food Chem.*, 2015, 63, 4196-4201.
 50. D. Qiu*, L. Yang, and Y.-C. Shi**, Formation of Vitamin E Emulsion Stabilized by Octenylsuccinic Starch: Factors Affecting Particle Size and Oil Load, *J. Food Science*, 2015, 80, C680-C686.
 51. R. Shukri*, and Y.-C. Shi**, Physicochemical properties of highly cross-linked maize starches and their enzymatic digestibilities by three analytical methods, *J. Cereal Sci.*, 2015, 63, 72-80.
 52. W. Ding, Y. Wang, W. Zhang, Y. Shi, D. Wang, Effect of ozone treatment on physicochemical properties of waxy rice flour and waxy rice starch. *International Journal of Food Science & Technology*, 2015, 50, 744-749.
 53. Z. Li, L. Cai, Z. Gu, Y.-C. Shi, Effects of granule swelling on starch saccharification by granular starch hydrolyzing enzyme, *J. Agricultural and Food Chemistry*, 2014, 62, 8114-8119.
 54. Y. Bai*, L. Cai*, J. Douth, E. P. Gilbert, Y.-C. Shi**, Structural changes from native waxy maize starch granules to cold-water-soluble pyrodextrin during thermal treatment, *J. Agric. Food Chem.*, 2014, 62, 4186-4194.
 55. L. Cai*, Y.-C. Shi**, Preparation, structure, and digestibility of crystalline A- and B-type aggregates from debranched waxy starches. *Carbohydrate Polymers*, 2014, 105, 341-350.
 56. Y. Bai*, R. C. Kaufman, J. D. Wilson, Y.-C. Shi**, Position of modifying groups on starch chains of octenylsuccinic anhydride-modified waxy maize starch, *Food Chemistry*, 2014, 153, 193-199.
 57. L. R. Brewer*, J. Kubola, S. Siriamornpun, T. J. Herald, Y.-C. Shi**, Wheat bran particle size influence on phytochemical extractability and antioxidant properties, *Food Chemistry*, 2014, 152, 483-490.
 58. D. Lu*, X. Shen, X. Cai, F. Yan, W. Lu**, Y.-C. Shi**, Effects of heat stress during grain filling on the structure and thermal properties of waxy maize starch, *Food Chemistry*, 2014, 143, 313-318.
 59. Y.-C. Shi and C. C. Maningat (editors), 2013, Resistant Starch, Sources, Applications and Health, IFT Press, Wiley Blackwell.

60. L. Cai* and Y.-C. Shi**, Self-Assembly of short linear chains to A- and B-type starch spherulites and their enzymatic digestibility, *J. Agric. Food Chem.*, 2013, 61, 10787-10797.
61. F. Xu*, Y.-C. Shi**, D. Wang**, Towards understanding structural changes of photoperiod-sensitive sorghum during sulfuric acid pretreatment, *Bioresource Technology*, 2013, 135, 704–709
62. Y. Bai, Y.-C. Shi, Reaction of octenylsuccinic anhydride with a mixture of granular starch and soluble maltodextrin, *Carbohydrate Polymers*, 2013, 98, 1599-1602.
63. F. Xu*, Y.-C. Shi**, D. Wang**, X-ray scattering studies of lignocellulosic biomass, A review. *Carbohydrate Polymers*, 2013, 94, 904-917.
64. Z.-G Luo*, Y.-C. Shi**, Preparation of acetylated waxy, normal, and high-amylose maize starches with intermediate degrees of substitution in aqueous solution and their properties. *J. Agric. Food Chem.*, 2012, 60, 9468-9475.
65. D. Qiu*, Y. Bai*, Y.-C. Shi**, Identification of isomers and determination of octenylsuccinate in modified starch by HPLC and mass spectrometry. *Food Chemistry*, 2012, 135, 665-671.
66. F. Xu*, Y.-C. Shi, D. Wang, Enhanced production of glucose and xylose with partial dissolution of corn stover in ionic liquid, 1-ethyl-3-methylimidazolium acetate, *Bioresource Technology*, 2012, 114, 720-724.
67. L. R. Brewer*, L. Cai*, Y.-C. Shi**, Mechanism and enzymatic contribution to in vitro test method of digestion for maize starches differing in amylose content. *J. Agric. Food Chem.*, 2012, 60, 4379-4387.
68. F. Qin , J. Man, C. Cai , B. Xu, M. Gu, L. Zhu, Y.-C. Shi, Q. Liu, C. Wei. Physicochemical properties of high-amylose rice starches during kernel development. *Carbohydrate Polymers*, 2012, 88, 690-698.
69. F. Xu*, Y.-C. Shi**, D. Wang**, Structural features and changes of lignocellulosic biomass during thermochemical pretreatments: A synchrotron X-ray scattering study on photoperiod-sensitive sorghum, *Carbohydrate Polymers*, 2012, 88, 1149-1156.
70. S. Yan, X. Wu, J. Faubion, S. Bean, L. Cai, Y.-C. Shi, X. S. Sun, D. Wang. Ethanol Production Performance of Ozone Treated Tannin Grain Sorghum Flour, *Cereal Chemistry*, 2012, 89, 30-37.
71. L.-J. Zhu*, H. Dogan, H. Gajula, M.-H. Gu, Q.-Q. Liu**, Y.-C. Shi**, Study of kernel structure of high-amylose and wild-type rice by X-ray microtomography and SEM, *J. Cereal Science*, 2012, 55, 1-5
72. L. Zhu*, M. Gu, X. Meng, S. C. K. Cheung, H. Yu, J. Huang, Y. Sun, Y. Shi**, and Q. Liu**, High-amylose rice improves indices of animal health in normal and diabetic rats, *Plant Biotechnology Journal*, 2011, 1–10
73. L. Cai*, Y. Bai*, Y.-C. Shi**, Study on melting and crystallization of short-linear chains from debranched waxy starches by in situ synchrotron wide-angle X-ray diffraction, *J. Cereal Science*, 2012, 55, 373-379.

74. L.-J. Zhu*, Q.-Q. Liu, J. D. Wilson, M.-H. Gu, Y.-C. Shi**. Digestibility of rice (*Oryza sativa* L.) flours and starches differing in amylose content. *Carbohydrate Polymers*, 2011, 86, 1751– 1759.
75. S. K. Garimella Purna*, R. A. Miller, P. A. Seib, R. A. Graybosch, Y.-C. Shi**, Volume, texture, and molecular mechanism behind the collapse of bread made with different levels of hard waxy wheat flours, *J. Cereal Science*, 2011, 54, 37-43.
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77. Y. Bai*, Y.-C. Shi**, A. Herrera, O. Prakash. Study of octenyl succinic anhydride-modified waxy maize starch by nuclear magnetic resonance spectroscopy. *Carbohydrate Polymers*. 2011, 83, 407-413.
78. Y. Bai*, Y.-C. Shi**. Structure and preparation of octenyl succinic esters of granular starch, microporous starch and soluble maltodextrin. *Carbohydrate Polymers*. 2011, 83, 520-527.
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80. L.-J. Zhu*, R. Shukri*, N. J. de Mesa-Stonestreet, S. Alavi, H. Dogan, Y.-C. Shi**. 2010. Mechanical and microstructural properties of soy protein – high amylose corn starch extrudates in relation to physiochemical changes of starch during extrusion. *J. Food Engineering*. 100 (2), 232-238.
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85. Y. Sang*, S. Alavi, Y.-C. Shi**, 2009. Subzero glass transition of waxy maize starch studied by differential scanning calorimetry. *Starch*. 61 (12), 687-695.
86. L.-J. Zhu*, Q.-Q. Liu, Y. Sang*, M.-H. Gu**, Yong-Cheng Shi**. 2010. Underlying Reasons for waxy rice flours having different pasting properties. *Food Chemistry*. 120 (1), 94-100

87. Y. Sang*, P. A. Seib, A. I. Herrea, O. Prakash, Y.-C. Shi**, 2010. Effects of alkaline treatment on the structure of phosphorylated wheat starch and its digestibility. *Food Chemistry*, 118 (2), 323-327 (doi:10.1016/j.foodchem.2009.04.121).
88. L. Guan*, P. A. Seib, R. A. Graybosch, S. Bean, Y.-C. Shi**, 2009. Dough rheology and wet milling of hard waxy wheat flours. *J. Agric. Food Chem.* 57, 7030-7038 (DOI:10.1021/jf900438v).
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91. J. Demesa, S. Alavi, N. Singh, Y.-C. Shi, H. Dogan, Y. Sang. 2009. Effect of soy protein concentrate and extruder screw speed on physico-chemical, textural and cellular properties of corn starch-based expanded snacks. *J. Food Engineering* 90 (2):262-270.
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97. Y.-C. Shi** and R. Jeffcoat. 2001. Structural Features of Resistant Starch. In “*Advanced Dietary Fibre Technology*”, B. McCleary, and L. Prosky eds., Balckwell Science Ltd.
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- Properties and Gelation Behavior of High Amylose Maize Starches. *J. Cereal Sci.* 27:301-314.
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 103. Y.-C. Shi, P. A. Seib, 1995. Fine Structure of Maize Starches from Four wx-containing genotypes of the W64A inbred line in relation to gelatinization and retrogradation. *Carbohydrate Polymers.* 26:141-147.
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 105. Y.-C. Shi, P.A. Seib, 1992. The Structure of Four Waxy Starches Related to Gelatinization and Retrogradation. *Carbohydr. Res.* 227:131-145
 106. Y.-C. Shi, P.A. Seib and S.P.W. Lu, 1991. Leaching of Amylose from Wheat and Corn Starch. in: *Water Relationships in Food.* H. Levine and L. Slade, eds. Plenum Press, New York
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PRESENTATIONS (*graduate student / research associate directly supervised by Dr. Shi; presenter)

1. Yong-Cheng Shi (invited), How ingredient modifications impact functionality: A look at octenylsuccinic anhydride modified starches, IFT Annual Meeting, July 12-15, 202, Virtual Meeting.
2. Yong-Cheng Shi (invited), Strategies for improving starch stability, IFT Short Course, Starch Science Solutions, July 28-30, 2020, online.
3. Yong-Cheng Shi (invited keynote speaker), Structure and emulsion properties of corn fiber gum and starch octenylsuccinate, 15th International Hydrocolloids Conference, March 2-5, 2020, Melbourne, Australia.
4. Yong-Cheng Shi (invited), Changes in starch and protein during thermal processing of cereal grains and flours, 2nd International Forum on the Science and Technology Development of Grains, Oils and Foodstuffs, November 15-17, 2019, Zhengzhou, Henan, China.
5. Yong-Cheng Shi (invited keynote speaker), Substituent patterns and applications of modified starches, 6th EPNOE International Polysaccharides Conference, October 21 – 25, 2019, Averio, Portugal.
6. Yong-Cheng Shi (invited), Preparation, morphology, and textural properties of white salted noodles with high resistant starch, 1st Cereal Science Conference, Aug. 13, 2019, Xian, China.
7. Yong-Cheng Shi (invited). Modification Patterns of Substituted Starches. AACC International Annual Meeting, November 3–5, 2019, Denver, CO, USA.
8. Sun, Z., Chen, Z., Xu, B., & Shi, Y. C. Distribution of octenylsuccinate substituents within a single granule of normal and waxy modified potato starches determined by Raman

- microspectroscopy. Poster presentation at AACC International Annual Meeting, November 3–5, 2019, Denver, CO, USA.
9. Chao-Feng Hsieh, Li-Kun Wang, Bin Xu, Paul A. Seib, & Yong-Cheng Shi, Preparation and textural properties of white salted noodles produced with partial substitution of cross-linked phosphorylated RS4 wheat starch for hard winter wheat flour, Cereal & Grains 2019, Nov 3-6, 2019, Denver, CO, USA.
 10. Y. C. Shi (invited), Structure, digestibility, and hypoglycemic effects of pyrodextrins, 70th Starch Convention & 15th European Bioethanol and Bioconversion Technology Meeting, Detmold, Germany, April 9-10, 2019.
 11. Y. C. Shi (invited), Settling volume and morphology changes in native and modified normal wheat, waxy wheat, and waxy maize starches in relation to their pasting properties, 70th Starch Convention & 15th European Bioethanol and Bioconversion Technology Meeting, Detmold, Germany, April 9-10, 2019.
 12. Y. C. Shi (invited), Improving cereal flours for functional and nutritional properties by heat-moisture treatment, ICC International Conference, Grains for Wellbeing, Taipei, Taiwan, November 5-8, 2018.
 13. A. L. Mense and Y. C. Shi, Physical structure and dissolution of wheat bran and its comprised layers. AACC International Annual Meeting, London, UK, October 21-23, 2018.
 14. Y. C. Shi (invited), Modification patterns and applications of octenylsuccinic anhydride modified starches, Starch Round Table – EU, Norwich, UK, October 18-19, 2018.
 15. Y. C. Shi (invited), Modifying starches for nutritional and functional properties, The 58th Japanese Starch Round Table, Izu, Japan, June 7-9, 2018.
 16. Y. C. Shi (invited), L. R. Brewer, L. Cai, M. C. Sweedman, J. Shi, Preparation, Structure, and Nutritional Properties of Starch Crystallites, The 14th International Hydrocolloids Conference, Nanchang, China, May 21-25, 2018.
 17. Y.-C. Shi (invited), B. Xu, A. Mense, W. Wang, Unique Properties and Applications of Waxy Wheat Flour and Starch, 4th ICC Latin American Cereal Conference, Mexico City, Mexico, March 11-14, 2018.
 18. Y. C. Shi, Structure and Nutritional Properties of Pyrodextrins, Starch Round Table, San Diego, CA, October 5-7, 2017.
 19. C.-F. Hsieh, W. Wang, W. Liu, J. K. Whaley, P. A. Patton, Y.C. Shi (invited), Structure, modifications, and properties of waxy starches, 67th Australasian Grain Science conference, Christchurch, New Zealand, September 20 – 22, 2017.
 20. Y. C. Shi (invited), Starch structure and factors that influence starch digestibility, Poultry Science Association Annual Meeting, Orlando, FL, July 17-20, 2017.
 21. Y. C. Shi, Bin Xu, Andrew Mense, Shivananda K. Garimella, Purna, Lan Guan, Milling, Flour Properties and Applications of Waxy Wheat, The 1st ICC Asia-Pacific Grains Conference, Xiamen, China, May 21-24, 2017.
 22. Y.C. Shi (invited), Structural changes of starch during dextrinization, 68th Starch Convention, Detmold, Germany, April 4th – 5th, 2017.
 23. Y.C. Shi (invited), Changes of starch during parboiling of rice kernels, 68th Starch Convention, Detmold, Germany, April 4th – 5th, 2017.
 24. Y. C. Shi, Developing starch products for nutritional, food, and industrial applications, Phil Williams Award lecture, AACC International Annual Meeting, Savannah, GA, Oct. 26-26, 2016.

25. Y. C. Shi (invited), S. Garimella Purna, L. Guan, Improving pasting and textural properties of waxy wheat flour and starch by chemical and physical modifications, AACC International Annual Meeting, Savannah, GA, Oct. 26-26, 2016.
26. Y.C. Shi (invited), Development of Starch Products for Nutritional, Food, and Industrial Applications, 66th Australian Grain Science conference, Tamworth, Australia, September 13 – 16, 2016.
27. Y. C. Shi (Invited), L. Cai, L. R. Brewer, M. Sweedman, J. Shi, M. Haub, Development of Starch Products for Nutritional, Food, and Industrial Applications, 2016 KoSFoST (Korean Society of Food Science and Technology) International Symposium and Annual Meeting, Daegu, Republic of Korea, August 17 - 19, 2016.
28. N. Grewal, J. Faubion, G. Feng, R. C. Kaufman, J. D. Wilson, and Y.C. Shi (invited), Structure of Waxy Maize Starch Hydrolyzed by Maltogenic α -Amylase in Relation to Its Retrogradation, 67th Starch Convention, Detmold, Germany, April 13th – 14th 2016.
29. S. Sittipod* and Y.-C. Shi (Invited), Changes of starch during parboiling of rice. The 8th International Conference on Starch Technology (Starch Update 2015), Bangkok, Thailand, December 3-4, 2015.
30. L. Cai*, M. Sweedman*, J. Shi*, and Y.-C. Shi (invited), Recent Advances in Resistant and Slowly Digestible Starch, 11th International Conference on Polysaccharides-Glycoscience, Prague, Czech Republic, October 7-9, 2015.
31. Y.-C. Shi, B. Xu*, A. Mense*, S. K. Garimella Purna*, L. Guan* (invited), Properties, modifications, and applications of waxy wheat flour and starch. International Symposium on Advances in Cereal Science for Asia, Yangzhou, China, November 5-8, 2015.
32. Y.-C. Shi, S. K. Garimella Purna*, L. Guan* (invited). Improving functional properties of waxy wheat flour and starch. 64th Australia Cereal Science Conference, Brisbane, Australia. August 24-27th 2014.
33. S. Sittipod and Y.-C. Shi (invited), Changes of starch during parboiling of rice, 64th Australia Cereal Science Conference, Brisbane, Australia. August 24-27th, 2014.
34. Y.-C. Shi, S. K. Garimella Purna*, L. Guan*, Modifications, properties, and applications of waxy wheat flour and starch. AACC International Annual Meeting, Providence, RI, October 5-8, 2014.
35. S. Sittipod* and Y.-C. Shi, Changes in morphology of starch in parboiled rice kernels. AACC International Annual Meeting, Providence, RI, October 5-8, 2014.
36. Y.-C. Shi (invited), From insoluble granules to cold-water soluble pyrodextrin: molecular, mesoscopic and microscopic changes of waxy maize starch during thermal decomposition, RMIT University, Melbourne, Australia.
37. Y.-C. Shi, Y. Bai*, X. Han* and J. Kang* (invited), Structure and properties of soluble dietary fiber prepared from starch by dextrinization, 12th International Hydrocolloid Conference, Taipei, Taiwan.
38. M. Xue*, Y.-C. Shi, Use of paramagnetic relaxation reagent in quantitative ¹³C NMR of maltodextrin, AACCI annual meeting, Albuquerque, New Mexico, Sept. 29 – Oct. 2, 2013.
39. R. Shukri*, P. A. Seib, C. Maningat, Y. C. SHI, In-vitro enzymatic testing method and digestion mechanism of cross-linked wheat starch, AACCI annual meeting, Albuquerque, New Mexico, Sept. 29 – Oct. 2, 2013.

40. L. R. BREWER*, Y. C. Shi, C. Weber, M. Huab, L. Cai, Acute human consumption of crystalline short-chain α -glucan, AACCI annual meeting, Albuquerque, New Mexico, Sept. 29 – Oct. 2, 2013.
41. S. SITTIPOD, Y. C. Shi, Changes in rice kernel and starch during steeping in parboiling process, AACCI annual meeting, Albuquerque, New Mexico, Sept. 29 – Oct. 2, 2013.
42. Y. C. SHI, D. Qiu, Use of octenylsuccinic starch in emulsion applications, AACCI annual meeting, Albuquerque, New Mexico, Sept. 29 – Oct. 2, 2013.
43. Y.C. Shi (invited), Preparation, structure, and digestibility of A- and B-type starch spherulites, Starch Round Table, Albuquerque, New Mexico, Sept. 26 – 28, 2013.
44. Y.-C. Shi (invited), Unique Properties, Modifications, and Applications of Waxy Wheat Flour and Starch, The 10th International Food Science and Technology, Wuxi, China, May 30-31, 2013.
45. Y.C. Shi, From insoluble granules to cold-water soluble pyrodextrin: molecular, mesoscopic and microscopic changes of waxy maize starch during thermal decomposition, EPNOE 2013 International Conference on Polysaccharides, Nice, France, Oct. 21-24, 2013
46. Y. Bai*, Y.C. Shi (invited), Preparation, structure, and applications of octenylsuccinic anhydride modified starch. Starch Update 2013 - The 7th International Conference on Starch Technology, Bangkok, Thailand, November 21-22, 2013
47. Y.-C. Shi (invited), Modification, properties, and applications of waxy wheat flour and starch, 63rd Australia Cereal Science Conference, Perth, West Australia. Aug. 25-28, 2013.
48. N. GREWAL*, Y.-C. Shi, Structure of waxy maize starch hydrolyzed by maltogenic amylase in relation to its retrogradation, AACCI annual meeting, Hollywood, FL, Sept. 30 –Oct. 3, 2012.
49. Y. Bai*, Y.-C. SHI, Preparation, structure, and properties of octenylsuccinic starch, AACCI annual meeting, Hollywood, FL, Sept. 30 –Oct. 3, 2012.
50. L. R. Brewer*, L. Cai*, Y.-C. Shi, Roles of alpha-amylase and amyloglucosidase in in vitro resistant starch test, AACCI annual meeting, Hollywood, FL, Sept. 30 –Oct. 3, 2012.
51. L.R. Brewer*, L. Cai*, Y.-C. Shi, Mechanism and Enzymatic Contribution to *In Vitro* Test Method of Digestion for Maize Starches Differing in Amylose Content, Plant and Seaweed Polysaccharides Workshop, Nantes, France, July 17-20, 2012.
52. D. Qiu* and Y.-C. Shi, Formation of vitamin E emulsion stabilized by octenyl succinic starch: factors affecting particle size and oil load, 11th International Hydrocolloids Conference, Purdue University, USA, May 14-18, 2012.
53. Y. Bai* and Y.-C. Shi, Preparation and characterization of octenyl succinic starches with different substitution patterns for emulsion and encapsulation applications, 11th International Hydrocolloids Conference, Purdue University, USA, May 14-18, 2012.
54. Y.-C. Shi (invited), Designed Structure and Digestibility of A- and B-type Crystals through Controlled Assembly of Short-Chain Amylose; Starch Update 2011: The 6th International Conference on Starch Technology, Bangkok, Thailand, February 13-14, 2012.
55. Y.-C. Shi (invited), Structural changes from insoluble starch granules to soluble dextrin, 2nd Starch Science Conference, Guangzhou, China, Nov. 4-6, 2012.
56. Y.-C. Shi (invited), Recent Advances in Developing Enzyme Controlled Digestible Starches, China, Institute of Agro-Products Processing Science and Technology, CAAS, Beijing, China, Dec. 24, 2012.

57. Y.-C. Shi (invited), Recent advances in resistant starch and slowly digestible starch. COFCO, Beijing, China, June 12, 2012.
58. Lauren R Brewer*, Dan Qiu, Yong-Cheng Shi, Phenolic distribution in wheat kernels – chemical and physical structure for nutritional value., 2011 AACCI annual meeting, Palm Springs, CA
59. R.C. Kaufman*, J.D. Wilson and Y.C. Shi, The effect of kernel maturity on the thermal properties of sorghum starch, 2011 AACCI annual meeting, Palm Springs, CA (poster)
60. L. Cai* and Y.-C. Shi, Comparing digestibility of A- and B-type crystals and providing insight on digestibility of starches, 2011 AACCI annual meeting, Palm Springs, CA.
61. L. Cai*, Y.-C. Shi, Preparation, structure and digestibility of A- and B-type crystals from short-chain amylase. The 10th International Hydrocolloids Conference. Shanghai, China, June 20-24, 2010.
62. Y. Bai*, Y.-C. Shi, Structure and preparation of octenyl succinic anhydride modified starches with different physical forms. The 10th International Hydrocolloids Conference. Shanghai, China, June 20-24, 2010.
63. A. S. Ahmed*, Y.-C. Shi, J. M. Faubion, T.T. Boutte, G. H. Feng, Impact on the pasting properties of wheat starch with the addition of emulsifiers. American Association of Cereal Chemists-International, Savannah, October 24-27, 2010.
64. L. R. Brewer*, L. Cai*, Y.-C. Shi, Digestion mechanism and in vitro test method of maize starch granule digestion. American Association of Cereal Chemists-International, Savannah, October 24-27, 2010.
65. L. Cai*, Y. Bai*, Y.-C. Shi, Melting and crystallization of short linear α -glucans studied by in situ synchrotron wide-angle X-ray diffraction. American Association of Cereal Chemists-International, Savannah, October 24-27, 2010 (poster).
66. Y. Bai*, Y.-C. Shi, Reaction of octenyl succinic anhydride with insoluble granular starch and soluble maltodextrin. American Association of Cereal Chemists-International, Savannah, October 24-27, 2010 (poster).
67. E. L. Karkle, S. Alavi, H. Dogan, Y.-C. Shi, L. C. Keller. Impact of cellular architecture and solid matrix properties on the texture of high-fiber expanded foods. American Association of Cereal Chemists-International, Savannah, October 24-27, 2010.
68. S. Yan, X. Wu, J. Faubion, Y.-C. Shi, L. Cai*, D. Wang, Properties of ozonated high-tannin grain sorghum flour and its ethanol productions. American Association of Cereal Chemists-International, Savannah, October 24-27, 2010.
69. R. Shukri*, Y.-C. Shi. Digestibility of cross-linked maize starches with different amylose contents. American Association of Cereal Chemists-International, Savannah, October 24-27, 2010.
70. Wetzel, David L., Shi, Yong-Cheng and Reffner, John A., "Synchrotron Infrared Confocal Microspectroscopic Imaging of Single Starch Granules with Small Step Sizes Reveals Sites of Chemical Modification", 60th Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, Chicago, IL, March, 2009, paper no. 2160-6.
71. David L. Wetzel and Yong-Cheng Shi, "Synchrotron Infrared Microspectroscopic Imaging Reveals Natural Distribution of P=O within Individual Potato Starch Granules", 5th International Conference on Advanced Vibrational Spectroscopy, Melbourne, Australia, July, 2009, paper no. P57.
72. David L. Wetzel, Yong-Cheng Shi and Ute Schmidt, "Confocal Raman and Atomic Force

- Microscopic Imaging of Individual Granules of Octenyl Succinate Modified and Native Waxy Maize Starch", (oral presentation), 5th International Conference on Advanced Vibrational Spectroscopy, Melbourne, Australia, July, 2009, paper no. O32.
73. D. L. Wetzel, Y.-C. Shi, Vibrational microspectroscopic imaging of functional groups in individual native and chemically modified starch granules. Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Annual Conference, Louisville, Kentucky, Oct. 18-22, 2009.
 74. Y. Bai*, Y.-C. Shi, Structural changes from native waxy maize starch granules to water-soluble dextrin. AACC International Annual Meeting, Baltimore, Maryland, Sept. 13-16, 2009.
 75. L. Cai*, Y.-C. Shi, Structure and digestibility of debranched waxy wheat, waxy corn, and waxy potato starches. AACC International Annual Meeting, Baltimore, Maryland, Sept. 13-16, 2009 (poster).
 76. D. L. Wetzel, Y.-C. Shi, J. A. Reffner, Synchrotron infrared confocal microspectroscopic imaging reveals chemical modification sites on single starch granules. AACC International Annual Meeting, Baltimore, Maryland, Sept. 13-16, 2009.
 77. Y. Bai*, Y.-C. Shi, and D. L. Wetzel, FT-IR Microspectroscopy of Individual Starch Granules Detects the Presence of Chemical Modification, The Federation of Analytical Chemistry and Spectroscopy Societies meeting, Reno NV, Sept. 28 – Oct. 3, 2008.
 78. Y.-C. Shi, Y. Bai*, D. L. Wetzel, Preparation, structure, and properties of octenyl succinic anhydride modified starches. IFT, Anaheim, CA, June 6-10, 2009.
 79. Y.-C. Shi, L. Cai, B. S. Hsiao, L. Rong, Starch structure via small-angle X-ray scattering and wide-angle X-ray scattering, AACC International Annual Meeting, Honolulu, Hawaii, September 21 – 24, 2008.
 80. L. Guan*, P. A. Seib, Y.-C. Shi, R. Graybosch, Factors affecting waxy wheat flour dough rheology, AACC International Annual Meeting, Honolulu, Hawaii, September 21 – 24, 2008 (poster).
 81. S. Garimella Purna*, M. Tilley, R. A. Graybosch, Y.-C. Shi, Characterization of flour proteins derived from waxy wheat lines, AACC International Annual Meeting, Honolulu, Hawaii, September 21 – 24, 2008 (poster).
 82. L. Cai* and Y.-C Shi, Crystallization of short chain amylose from debranched waxy corn starch, AACC International Annual Meeting, Honolulu, Hawaii, September 21 – 24, 2008 (poster).
 83. L. Zhu*, Q. Liu, M. Gu, Y.-C. Shi, Underlying mechanism for waxy rice flours having different pasting properties, AACC International Annual Meeting, Honolulu, Hawaii, September 21 – 24, 2008 (poster).
 84. V. R. Pierucci, S. K. Garimella Purna, M. Tilley, Y. Shi, K. A. Tilley, Protein and starch changes during wheat tortilla processing, AACC International Annual Meeting, Honolulu, Hawaii, September 21 – 24, 2008.
 85. Y. Bai*, D. Wetzel, Y. Shi, Detecting homogeneity of octenyl succinic anhydride modified starch by FT-IR microspectroscopy, AACC International Annual Meeting, Honolulu, Hawaii, September 21 – 24, 2008 (poster).
 86. L. Zhu*, N. de Mesa, S. Alavi, Y.-C. Shi, H. Dogan, R. Shukri, Physical and biochemical properties of high amylose – soy protein concentrate extrudates, AACC International Annual Meeting, Honolulu, Hawaii, September 21 – 24, 2008.
 87. Y.-C. Shi, D. Wang, P. A. Seib, R. Madl, R. Miller, S. K. Garimella Purna, Lan Guan, R. A. Graybosch, Comprehensive Evaluation of Waxy Wheat for Food & Industrial Application,

- International Grain Quality and Technology Congress, Chicago, Illinois, July 15 -18, 2008.
88. Y.-C. Shi, Intrinsic and Extrinsic Sources of Resistant Starch, IFT, New Orleans, LA, June 28-July 1, 2008.
 89. Y. Sang* and Y.-C. Shi, Glass Transitions of Waxy Maize Starch in Water. AACC International Annual Meeting, San Antonio, Oct. 7-10, 2007.
 90. L. Guan*, P. A. Seib, and Y.-C. Shi, Morphology changes in waxy wheat, normal wheat and waxy maize starch granules in relation to their pasting properties. AACC International Annual Meeting, San Antonio, Oct. 7-10, 2007.
 91. S. K. Garimella Purna*, R. A. Miller, P. A. Seib, R. A. Graybosch, R. A., and Y.-C. Shi, Low Levels of Waxy Wheat Flour in Bread and Their Effects on Volume and Texture. AACC International Annual Meeting, San Antonio, Oct. 7-10, 2007.
 92. E. Cheng, S. Alavi, Y.-C. Shi, R. Jeannotte, and R. Welti, Encapsulation of Fish Oil in Starch Matrices Utilizing Extrusion Processing. AACC International Annual Meeting, San Antonio, Oct. 7-10, 2007.
 93. L. Guan*, P. A. Seib, and Y.-C. Shi, Wet-Milling of Starch from Waxy Wheat Flours. AACC International Annual Meeting, San Antonio, Oct. 7-10, 2007 (poster).
 94. Y. Sang*, P. A. Seib, and Y.-C. Shi, Alkaline stability of phosphorylated wheat starch. AACC International Annual Meeting, San Antonio, Oct. 7-10, 2007 (poster).
 95. Y. Sang*, X. Xu, S. Bean, and Y.-C. Shi, In vitro digestibility of starch in sorghum flours. AACC International Annual Meeting, San Antonio, Oct. 7-10, 2007 (poster).
 96. Y. Sang*, S. Bean, P. A. Seib, and Y.-C. Shi, Structure and functional properties of sorghum starches differing in amylose content. AACC International Annual Meeting, San Antonio, Oct. 7-10, 2007 (poster).
 97. Y. Bai*, D. Wetzel, and Y.-C. Shi, FT-IR Microspectroscopy of Octenyl Succinic Anhydride Modified Starches. AACC International Annual Meeting, San Antonio, Oct. 7-10, 2007 (poster).
 98. Y. Bai*, O. Prakash, P. A. Seib, and Y.-C. Shi, Reaction of Octenyl Succinic Anhydride with Waxy Maize Starch and the Structure of the Modified Starch. AACC International Annual Meeting, San Antonio, Oct. 7-10, 2007 (poster).
 99. S. K. Garimella Purna*, P.A. Seib, R. A. Graybosch, and Y. C. Shi, Pasting properties and solvent retention capacity of hard waxy wheat flours. IFT Annual Meeting, Chicago, IL, July 28-Aug., 2007 (poster).
 100. Y.-C. Shi (invited), Molecular Origin of Resistant Starch, Advanced Food for Health Symposium, Ames, Iowa, May 8-9, 2007.
 101. Y.-C. Shi (invited), Resistant Starch – an Overview, The 1st International Forum on Cereal Science, Southern Yangtze University, Wuxi, China, Oct. 18-21, 2006.
 102. Y.-C. Shi, Annealing and gelatinization of waxy rice and wheat starches. World Grains Summit, San Francisco, CA, Sept. 17-20, 2006.