

Juming Tang, Ph.D., Regents Professor

Distinguished Chair of Food Engineering

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EMPLOYMENT

- July, 2016- Chair, Department of Biological Systems Engineering, Washington State University, Pullman, WA.
- July, 2014- Regents Professor, Department of Biological Systems Engineering, Washington State University, Pullman, WA.
- 2012- Distinguished Chair of Food Engineering, Department of Biological Systems Engineering, Washington State University, Pullman, WA.
- 2003- Professor, Food Engineering, Department of Biological Systems Engineering, Washington State University, Pullman, WA.
- 2000-03 Associate Professor, Food Engineering, Department of Biological Systems Engineering, Washington State University, Pullman, WA.
- 1995-00 Assistant Professor, Food Engineering, Department of Biological Systems Engineering, Washington State University, Pullman, WA.
- 1994-95 Assistant Professor, Food and Biomaterial Engineering, Department of Agricultural and Biological Engineering, South Dakota State University, Brookings, SD.
- 1991-94 Assistant Professor of Food Engineering, Department of Food Science and Technology, Acadia University, Wolfville, NS, Canada.

EDUCATION

- 1987-91 Ph.D., Agricultural/Food Engineering, University of Saskatchewan, Saskatoon, SK, Canada.
- 1985-87 M.S., Agricultural/Food Engineering, University of Guelph, Guelph, ON, Canada.
- 1978-82 B.S., Mechanical Engineering, Central South China University, Hunan, China.

LEADERSHIP IN RESEARCH

2016-2020

Director of USDA AFRI Center of Excellence for Food Safety Using Microwave Energy (\$1M per year from USDA NIFA CAPs Program).

2011-2015

Principal Investigator of \$5M, 5-year project supported by USDA NIFA “Control of food-borne bacterial and viral pathogens using microwave technologies” for frozen and refrigerated meals. The team consists of scientists from WSU, University of Tennessee, North Carolina State University, US Army Natick Soldier Center, USDA ARS Eastern Regional Center, companies/trade organizations (<http://microwavepasteurization.wsu.edu/>).

2001-

Director of Microwave Sterilization Consortium. Consortium members include WSU, Nestle, Pepsi-Cole, General Mills, Hormel, Bush Brothers, Print-Pack, Rexam Containers, Del Monte, Ocean Beauty Seafood, AmeriQual, and Wornick Foods (current budget: ~\$0.6 M/year - fees collected from consortium members) (<http://microwaveheating.wsu.edu/>).

Developed and patented a single-mode 915 MHz microwave sterilization technology for military and civilian uses; received FDA approval for a homogenous food: mashed potato in trays on Oct. 07, 2009 - first ever in USA for industrial microwave sterilization process; received FDA approval of our second process (for a non-homogenous food: salmon fillets in pouches) on Dec. 15, 2010. The outcomes of the research established scientific, engineering, and regulatory foundation for commercial application of this new technology.

2000-08 Washington State University IMPACT Research Fellow of Food Processing Technology – one of three IMPACT fellows.

ACHEIEVMENTS/AWARDS/HONORS

- 2018 **Innovation and Entrepreneurship Award**, Washington State University
- 2017 **Professional Achievement Award** – for Advancing Food Science and Technologies, Chinese American Food Society.
Distinguished Career Award – Oversea Chinese Society of Agricultural, Biological Systems and Food Engineers.
- 2014 **Fellow**, Institute of Food Technologists.
Fellow, American Society of Agricultural and Biological Engineers.
Freezing Research Award, International Association for Food Protection/Frozen Food Foundation.
- 2013 **Fellow**, International Microwave Power Institute.
Assist Ameriquel Foods Receiving **FDA Acceptance** of one process based on MATS (March)
- 2012 **International Food Engineering Award**, American Society of Agricultural and Biological Engineers & Nestle, “for breakthrough engineering design and development of microwave/radio frequency thermal processing technologies, and outstanding leadership and education of food engineering professionals”.
G. Malcolm Trout Visiting Scholar, Michigan State University.
Letter of No-objection from USDA FSIS for microwave sterilization of packaged low acid foods containing more than 2% of poultry, egg and meat ingredients.
- 2010 **FDA Acceptance of Microwave Sterilization Process** for Packed Salmon Fillets in Pouch (12-15-2010) filed by my laboratory - the first FDA accepted filing for microwave sterilization of packaged low acid **non-homogeneous** foods in USA.
- 2010 **IFT Research and Development Award**, “for Development of FDA Accepted Microwave Sterilization Process”.
- 2009 **FDA Acceptance of Microwave Sterilization Process** for Packaged Mashed Potato (10-07-09) filed by my laboratory – the **first ever** for microwave sterilization of packaged low acid foods in USA. Only three new food processing technologies received FDA approval over the past 20 years in USA.
- 2008 **Anjan Bose Outstanding Researcher Award**, College of Engineering and Architecture, WSU (the highest research honor the college can bestow).
- 2005 **Distinguished Food Engineering Professor**, Southern Yangtze University (SYU), Wuxi, China (SYU selects only one outstanding food engineer worldwide per year to visit and lecture at SYU for one month).

- 2005 **Graduate and Professional Student Outstanding Advisor Award** (one of two awardees at WSU in 2005), Washington State University Graduate and Professional Student Association.
- 2004 **ASAE Superior Paper Award.**
- 2004 **NASA Faculty Fellow**, Advanced Food Technology Program, Johnson Space Center, Houston, TX – selected to work on package and processing solutions for long-duration manned space missions.
- 2004 **Outstanding Research Faculty**, Department of Biological Systems Engineering, WSU.
- 2003 **USDA Secretary’s Honor Group Award** for increasing the efficiency, security, sustainability, and profitability of the fruit and vegetable industry through applications of the technologies developed.
- 2002 **Award for Excellence**, Northeastern Regional Association of State Agricultural Experimental Station Directors.
- 2002 **Faculty Excellence in Research Award**, College of Agriculture and Home Economics, WSU.(1 out of 350 faculty members).
- 2001 **ASAE Superior Paper Award** ($\leq 2.5\%$ of published papers in the Trans. of the American Society of Agricultural Engineers and Applied Agric. Engineering in 2000).
- 1994 **IFT George F. Stewart International Research Paper Competition Award** (1st place).

TEACHING AND GRADUATE STUDENT EDUCATION

Major advisor of 40 Ph.D. students (27 graduated), 3 M.S. students, 48 post-doctoral research associates and visiting professors. Graduate students in my group have received 4 awards at national conferences, 15 regional awards, and two university awards over the past 8 years for their research activities or in paper competition.

Taught the following courses at WSU: BsysE Professional Development (BsysE 215), Introduction to Food Engineering Labs (AgTM/FSHN 434), Food Plant Design (BsysE 487/587), Thermal Processing (BsysE584), Advanced Physical Properties of Foods (30-45% of BsysE 581), and Senior Project Design (75% of BsysE 311). Advisor of certified undergraduate students in food engineering track (1995-2002).

Taught Food Engineering I&II, Food Processing Technologies in the Department of Food Science and Technology, Acadia University (Canada).

GRANTS AND CONTRACTS

Awarded \$26 million as PI and \$7 million as CO-PI, including one grant (in 2001 for microwave sterilization) from Department of Defense (DoD) Dual Use Scientific and Technology (DUST) Program (only three ever awarded for food related projects, the other two DUST projects were for PEF in 1999 and HHP in 2000), eight contracts from US Army Natick Soldier Center/COARENT, five grants from USDA National Research Initiative Competitive Grant Program (NRICGP), a \$5M grant from USDA NIFA, a \$4M Center of Excellence grant from USDA NIFA, a \$1.2 M grant from USDA President’s Initiative for Future Agriculture and Food Systems (IFAFS) program, three USDA National Needs grants, one BARD grant, one DoE grant, and National Science and Engineering Research Council Foundation and Equipment grants (Canada).

Listed below are grant awards for the past 10 years:

2018	Tang, J., Validating 3 MATS processes for NASA Space Program (\$150,00), Developing RME for US Army (\$50,000), Industrial Contracts (\$100,000)
2017	Tang, J. Industrial Contracts (\$200,000)
2016	Tang, J. Industrial Contract Work (\$200,000)
2015 (\$4,600,000)	Tang, J. et al. 2015-2019. Center of Excellence for Advanced Microwave Processing Technologies for Food Safety and Food Companies.
2014 (\$1,288,000)	Tang, J. Zhu, M. 2014-2019. Enhancing Low-Moisture Food Safety by Improving Development and Implementation of Pasteurization Technologies, USDA NIFA CAP program (\$5M, led Bradley Marks, Michigan State University, WSU \$ 935,018). Tang, J. , Sterilization of packaged foods using MATS (\$320,000), Food Companies F, C, W, A. Tang, J. , Zhu, M., Sablani, S., Ganjyal, G., Shah, D. Understanding of food and microbiological properties at elevated temperatures to improve low-moisture food safety, WSU Agricultural Research Center (\$33,000).
2013 (\$279,343)	Tang, J. , Sterilization of packaged foods using MATS (\$180,000), Food Company. Tang, J. , Pasteurization of packaged foods using microwave energy (MAP) (\$50,000), Food Company. Tang, J. , Zhu, M., Sablani, S., Ganjyal, G., Shah, D. Understanding of food and microbiological properties at elevated temperatures to improve low-moisture food safety. WSU Agricultural Research Center (\$49,343).
2012 (807,486)	Tang, J. , Rob Penney, Determining and improving the energy efficiency of microwave sterilization & pasteurization technologies. Bonneville Power Administration, DoE, 2012-2015 (\$643,000). Tang, J. , Wang S. 2012-2015. Factors affecting pasteurization efficacy for Salmonella in low-moisture foods, USDA NIFA, as part of a project for Marks, B. (Michigan State U.), Tang, J., Ryser, E., Wang, S., Jeong, S. (total \$496,514; WSU \$164,486).
2011 (5,419,869)	Tang, J. , Davidson, P. M., Rasco, B., Sablani, S., D'Souza, D., Dunne, P., Yang, T., Huang, L., Gray, D. O. 2011-2016. Control of food-borne bacterial and viral pathogens using microwave technologies, USDA National Institute of Food and Agriculture (NIFA) (\$5,000,000). Tang, J. , Sablani, S., Barbosa-Canovas, G.V., Davis, D. Educating food engineers to develop high-performance integrated processing and packaging technologies that enhance food safety and quality. 2012-2016. USDA NIFA National Needs Graduate and Postgraduate Fellowships Program (\$238,500). Tang, J. , Wang S. 2012-2015. Improving Process Validation Methods for Multiple Pasteurization Technologies Applied to Low-Moisture foods. USDA NIFA, as part of a project for Marks, B. (Michigan State U.), Tang, J. , Ryser, E., Wang, S., Jeong, S. (total \$542,824; WSU \$181,369).
2010 (\$1,600,000)	Tang, J. Microwave sterilization for packaged foods, DoD/Print-pack, Co. (\$400,000). Tang, J. Microwave Consortium II membership fees from consortium

- members, 2010-2012 (\$1,200,000).
- 2009 (\$465,555) **Tang, J.** Dry pea and lentil processing. USDA Cool Food Legume Program 2009-2010 (\$35,555).
Tang, J. Microwave sterilization technology–FDA approval. DoD (\$430,000).
- 2008 (\$991,344) **Tang, J.,** Sablani, S, Powers, J., Chow, B. Enhancing nutrition contents in value added processing of agricultural products. WSU ARC Emerging Issue Program (\$63,000).
Tang, J. Dry pea and lentil processing. Cool Food Legume Program (\$38,455).
Tang, J., Kang, H, Wang, S. 2008 Abbot Laboratories, OH, RF control of food pathogens in infant formula (\$57,000).
Wang, S., **Tang, J.** Johnson, J. Non-chemical Postharvest Insect Control in Pulse Crops Using Radio Frequency Energy. USDA-Western Regional IPM Competitive Grants Program (\$160,889).
Tang, J. Microwave sterilization technology – FDA approval. DoD (\$600,000).
Tang, J. Quality influenced by emerging technologies, USDA NRI (\$65,000, a part of a \$750,000 project led by Sastry, S., Ohio State U.).
- 2007 (\$998,423) **Tang, J.,** Sablani, S, Powers, J., Chow, B. Enhancing nutrition contents in value added processing of agricultural products. WSU ARC Emerging Issue Program (\$63,000).
Tang, J., Patil, R. Value-added processes for potato. WA Potato Commission (\$30,000).
Tang, J., Rasco, B., Clark, S., Pitts, M., Cavalieri, R, Yin, H. MW Sterilization, Department of Defense (\$833,423).
Tang, J., Powers, J., 07. Processes to produce shelf-stable mushroom soups. WTC and company (\$72,000).
- 2006 (\$715,190) **Tang, J.,** Swanson, B., Patil, R. Value-added processes for lentils and dry peas, Cool Season Food Legume Research Program (\$54,614).
Tang, J., Patil, R. Value-added processes for potato. WA Potato Commission (\$27,576).
Tang, J. WSU IMPACT Fellow Support (\$20,000).
Tang, J. Microwave Sterilization: Rexam Containers (\$20,000), Masterfoods (\$100,000), Kraft Foods (\$150,000), US Army Natick Soldier Center (\$250,000).
Tang, J., Nindo, C. Refractance Window Drying, USDA SBIR (\$30,000).
Tang, J., Nindo, C., Powers. Strategies for Antioxidant Retention and Recovery of Pigments from Press Cake, WSU IMPACT Center (\$30,000).
Tang, J., Patil, R., Swanson, BG., McCluskey, 2006-007. Consumer acceptability and nutraceutical benefits of legume-based extruded snacks and breakfast cereal-type products, WSU IMPACT Center (\$33,000).
- 2005 (\$1,328,532) **Tang, J.,** Rasco, B., Clark, S., Pitts, M., Cavalieri, R. Microwave (MW) Sterilization for MREs, US Army Natick Soldier Center (\$272,401).
Tang, J., Nindo, C., Powers, J. Quality and shelf-life of reflectance window dried fruit, vegetable and herbal products, Washington Technology Center (\$122,131).
Tang, J., Optimization of RF systems for shelf-stable group rations, US Army

- Natick Soldier Center (\$175,000).
- Tang, J.,** Wang, S. Improve quarantine treatments for tropic fruit using thermal energy, USDA NRI (\$335,000).
- Tang, J.** Advanced thermal processing technology for salmon, USDA Special Program through University of Alaska (\$309,000).
- Tang, J.,** Swanson, B., Patil, R. Value-added processes for lentils and dry peas, Cool Season Food Legume Research Program (\$65,000).
- Tang, J.,** Patil, R. Value-added processes for potato. WA Potato Commission (\$30,000).
- Tang, J., WSU IMPACT Fellow Support (\$30,000).
- 2004 (\$1,227,726) **Tang, J.** Microwave Dual Use Project, DoD (\$250,000).
- Tang, J.,** Wang, S. Radio frequency energy as an alternative to methyl bromide fumigation for controlling pests in stone fruits and nuts. USDA Methyl Bromide Transitions Program (\$445,881).
- Tang, J.,** Pitts, M., Kang, H.C., Clark, S. Optimization of RF Sterilization of Polymeric Trays, US ARMY Natick Soldier Center (\$246,831).
- Tang, J.,** Swanson, B., Cheng, M. Value-added processes for lentils and dry peas. Cool Season Food Legume Research Program (\$66,964).
- Tang, J.,** Powers, J., Swanson, B.G. Value-added processes for asparagus, USDA (\$43,000).
- Tang, J.,** Ben Li. Computer models for microwave/RF heating, WSU IMPACT Center (\$30,050).
- Tang, J.** WSU IMPACT Fellow Support (\$30,000).
- Tang, J.** Microwave Sterilization: Masterfoods (\$30,000), Hormel (\$30,000), Rexam Containers (\$20,000), Graphic Packaging, (\$10,000), Ocean Beauty Seafoods (\$25,000), Ferrite Component, Inc. (\$43,000).
- 2003 (\$1,050,696) **Tang, J.,** Barbosa-Canovas, G., Clark, S., and Kang D.H, 2003-05. Thermal stabilizing of shelf-stable egg products based on radio frequency energy technology. DoD (\$248,505).
- Tang, J.** Microwave Sterilization: Masterfoods (\$60,000), Kraft (\$50,000).
- Tang, J.,** Clark, S., McCurdy, A., Kang, D.H. 2003-07. Safety of foods processed by four Alternative Processing Technologies, USDA CREES, (\$250,082, as a part of \$1.7 million grant led by Sastry S., Ohio State Univ.).
- Tang, J.** Microwave Dual Use Project, US ARMY Natick Soldier Center (\$258,191).
- Tang, J.,** Pitts, M., Kang, H.C., Clark, S. Optimization of RF Sterilization of Polymeric Trays, US ARMY Natick Soldier Center (\$223,233).
- Tang, J.,** Ben Li. Computer models for microwave/RF heating, WSU IMPACT Center (\$30,050).
- Tang, J.,** Powers, J., Swanson, B. Value-added processes for asparagus, USDA (\$47,000).
- Tang, J.,** Berrios, J.D., Swanson, B. Value-added processes for dry peas and lentils, Cool Season Food Legume Research Center (\$30,000).
- Tang, J.** RF pest control for tropic fruits. Department of Agri., CA (\$30,000).
- Tang, J.** Equipment enhancement grant. US ARMY Natick Soldier Center (\$50,000).

1997-2002 As PI (\$4,200,000) and as Co-PI (1,052,000).

INVITED/KEYNOTE / PLENARY SPEAKER (past 9 years)

- 2017 **Speaker for General Session** (30 min): Challenges and Opportunities in Developing and Applying Smart Technologies for the Food Industry. ASABE/IEEE SmartAg International Symposium Dec. 3-6, 2017, East Lansing, MI.
Speaker for General Session (30 min): Advancing Food Safety Technologies to Meet Consumer Needs. International Forum on Food Technologies. Nov. 4-5th. YangLing, China (200 attendees).
Keynote Speaker (60min). Theory and Application of RF Heating in Industrial Applications. Novel Drying Technologies Workshop, Taiwan, February 24 (180 attendees).
Guest lecture (2 hr) on microwave heating principles and technology development to Cornell graduate students.
- 2016 **Invited Speaker**, 2016 International Conference on Food Safety Applications. September 29-30. Kaohsiung, Taiwan, Presentation title: Novel in-package thermal processing technologies based on microwave energy for food safety (40 min, 400 people).
Panel Speaker, *Food Engineering Research – Opportunities and Challenges*, 2016 Conference of Food Engineering, September 12-14, Columbus, OH (120 people).
Invited Speaker, IFTPS (Institute for Thermal Processing Specialists) Conference: Responsibilities of Processing Authorities in the Implementation of Alternative Processing Technologies. Presentation Title: Microwave Sterilization of Packaged Foods (60 min).
Invited Speaker, 3rd Global Congress on Microwave Energy Applications. Presentation title: Bridging Gaps in Microwave Technologies for Industrial Production of Safe Foods. July 25-29, Cartagena, Spain. Member of Scientific Committee for the Congress, Chair of Technical Sessions.
Panel Speaker: When microwave heating technologies become main stream operations in the food industry. 3rd Global Congress on Microwave Energy Applications. July 25-29, Cartagena, Spain.
Steering Committee and Presenter: NSF Food-Energy-Water Nexus Workshop: Transformative Food Technologies to Enhance Sustainability. Feb 22-24. Lincoln, Nebraska.
- 2015 **Keynote Speaker (60 min)**: Thermal Processing Technologies based on Microwave Energy. Kuraray Symposium for South America, Houston, TX, Nov. 19-20.
Invited Speaker (45 min): Innovative Thermal Processing (Microwave, RF) to Control Pathogens and Spoilage Microorganisms, 10th International Conference for Food Safety and Quality, San Francisco, Nov. 10-12.
Invited Speaker: A New Microwave Pasteurization Technology to Control Bacterial and Viral Pathogens in Packaged Foods. *Annual Conference of American Society of Agricultural and Biological Systems Engineers*. New Orleans, July 27-29.
Featured Speaker (30 min): Control of food borne bacterial and Viral Pathogens Using Microwave Energy, USDA National Institute of Food and Agriculture Project Directors Conference, Portland, OR, July 24.
- 2014 **Keynote Speaker (45 min)**: Microwave Assisted Pasteurization and Sterilization Technologies, 2nd Southeast Asia Technical Outreach Seminar, Bangkok, Thailand, Nov. 4-5
Invited Speaker (45 min): A New Microwave Pasteurization Technology to Control Bacterial

- and Viral Pathogens in Packaged Foods. *Annual Conference of Institute for Thermal Processing Specialists*, Orlando, March 11-13
- Invited Speaker (30 min):** A Novel Pasteurization Technology for Packaged Foods. *Conference of Food Engineering*, Omaha, April 8-10.
- 2013 **Key Speaker (40 min):** Innovative Thermal Processes to Control Pathogens and Spoilage Microorganisms. *8th International Conference for Food Safety and Quality*, Las Vegas, Nov. 5-6.
- Invited Speaker (45 min):** Microwave technologies for packaged foods- challenges and opportunities for packaging industry. *Thin Wall Packaging Conference 2013*. Cologne, Germany, Dec. 3-5.
- Keynote Speaker (40 min):** Bridging Gaps between Academic Research and Food Industry in Microwave and RF Applications at opening of *International Microwave Power Annual Symposium*, Providence, RI, June 26/27.
- Guest Lectures** on Microwave Heating Principles, Cornell University, March 2013.
- 2012 **Keynote Speaker (30 min):** Microwave Sterilization Technology for Commercial Production of Safe Foods. *2nd Global Congress on Microwave Energy Applications*, Long Beach, CA July 25.
- Panellist** for DOE Energy Session: Microwave and Radio Frequency as Enabling Technologies for Advanced Manufacturing. *2nd Global Congress on Microwave Energy Applications*, Long Beach, CA, July 25.
- Invited Speaker (35 min):** *Conference of Food Engineers*, April 2-4, Washington DC. Presentation Title: Microwave sterilization technology – a case study from technology development to commercialization.
- G. Malcolm Trout Visiting Scholar Lecture**, Michigan State University, March 21, Title: “Microwave Technology for Food Safety – The Path from Research to FDA Approval”.
- 2011 **Invited Speaker (45 min):** *Institute for Thermal Processing Specialists (IFTPS) Third European Conference*, 4-5 Oct. 2011, Budapest, Hungary. Presentation Title: Microwave sterilization: a potential technology for production of safe and high quality food products.
- Keynote Speaker (50 min):** Chinese Bio-resources Application Association Meeting, *Sept. 3, Taipei, Taiwan*. Presentation Title: *Microwave sterilization for packaged foods*.
- 2010 **Keynote Speaker (60 min):** MREs, Military Rations and Packages R&D Annual Meeting, Lake Tahoe, 25 October 2010. Presentation Title: *Microwave sterilization, a potential technology for MREs*.
- Invited Speaker (45 min):** 2010 International Association of Refrigerated Warehouses (IARW) - World Food Logistics Organization (WFLO) Annual Convention & Expo, Westin Kierland Resort, Scottsdale, Arizona, April 24, 2010. Presentation Title: *Microwave energy for food safety*.
- Invited Speaker (60 min):** *International Forum for Future Agricultural Engineering Research and Education*, and at Shanghai Ocean University (July 5, 2010); Zhejiang University (July 6, 2010); Yangling (July 9, 2010), China. Presentation Title: Microwave energy for food safety, Microwave/RF energy in food and agricultural processing applications.
- 2009 **Keynote Speaker (35 min):** International Symposium on Safety Assessment of Food Products and Processing–Forefront of Food Safety Technology and 39th Annual Conference of Taiwan Association for Food Science Technology, Iilan City, Taiwan, 25-27 November 2009. Presentation Title: *Food safety issues related to microwave sterilization technology*.

- Plenary Speaker:** Food Safety Summit, 27-29 April 2009 Washington, DC. *Presentation Title: Thermal Processing Using Microwave Energy: a possible fourth dimension for food safety and quality challenges.*
- Plenary Speaker (30 min):** American Associate of Cereal Chemists (AACC) International Meeting, 13-16 2009, Baltimore, MD. *Presentation Title: Novel Thermal processing based on microwave and radio frequency energy for packaged foods.* A panel member in Symposium: Advances in Delivery of Food Nutrients - Tailoring Process Operations for Health and Wellness.
- Plenary Speaker (45 min):** International Forum on Emerging Technologies in Food Processing, 13-16 Sept. 2009, University of Illinois, Urbana-Champaign IL. *Presentation Title: Microwave Heating Applications and Food Processing.*
- 2008 **Plenary Speaker (45min):** 14th World Congress of Food Science and Technology, Shanghai, China, 20-23 October 2008 Presentation Titles: 1) Hot Topics in Food Engineering- Microwave and Radio Frequency Sterilization, Plenary Symposium: Food Engineering: Past and Future Directions; and 2) Computer Simulation in Design of Microwave and Radio Frequency Systems. Food Processing Equipment – Computer Aided Design and Energy Saving Technologies.
- Anjan Bose Outstanding Researcher Award Lecture (40 min):** College of Engineering and Architecture, WSU, 20 April 2008. *Presentation Title: Multi-disciplinary research in developing emerging food technologies.*
- Keynote Speaker (45 min):** 2008 Global Congress on Microwave Energy Applications - Global Perspective on Microwave Technology in 21st Century, Lake Biwa, Otsu, Japan, August 5-7, 2008. *Presentation Title: US Development of Single-Mode 915 MHz Microwave Sterilization Technology for Packaged Foods.*
- Plenary Speaker:** IFT Symposium–Safety of Food Processed Using Four Alternative Processing Technologies, Part I: Thermal processing, IFT Annual Meeting, New Orleans, 29 June 2008. *Presentation Title: In package microwave processing.*
- Plenary Speaker:** IFT Symposium – Historical Developments of Novel and Nonthermal Processing, IFT Annual Meeting, New Orleans, 1 July 2008. *Presentation Title: Historic development of microwave and radio-frequency processing.*
- Plenary Speaker:** IFT Symposium – Innovation in Numerical Modeling of Emerging Technologies, Part II-Microwave and Ohmic Heating, IFT Annual Meeting, New Orleans, 1 July 2008. *Presentation Title: Microwave induced temperature patterns in food packages.*
- 2007 Product Collaboration on WTC Projects. Discover WSU Workshop, organized by Washington Technology Center, WSU Grant Office, and SIRTU. April 10, 2007.
- How to write multi-disciplinary proposal, WSU OGRD Workshop for New Faculty. March 20, WSU.
- 2006 Microwave Sterilization Technology, USDA Short Course on Advanced Processing Technologies, University of California, Davis, March, 5-6, 2006
- Novel Thermal Processing Technologies for Military, Space, and Retail Markets. Zhejiang University, HongZhou, August 10, 2006.
- Principles of MW and RF Sterilization Processes. South YangZie University, Wuxi, China, August 5, 2006.

- 2005 **Keynote Speaker**(40 min): 6th International Conference on Food Science and Technologies, Gongzhou, China, 6-10 November 2006. *Presentation Title:* Development of advanced thermal processing technologies in USA.
- Plenary Speaker:** 39th Annual Microwave Symposium of the International Microwave Power Institute, Seattle, WA, , 13-15 July 2005. *Presentation Title:* Microwave and RF sterilization technologies for packaged foods.
- Plenary Speaker:** USDA Emerging Processing Technologies Symposium. Washington DC, 26-27 May 2005. *Presentation Title:* Microwave and RF sterilization technologies.
- By special invitation:* Multi-disciplinary and institution research at WSU in addressing challenges in food and agriculture engineering. To USDA CSREES and NRI National Program Leaders, Washington DC, February 17.
- Plenary Speaker:** Pacific Northwest Farm Forum, Spokane, WA, 12 January 2005. *Presentation Title:* Extruded snack foods from legumes.
- 2004 **Plenary Speaker:** USA Dry Pea and Lentil Council, Western Pea and Lentil Grower Association, 2004 Annual Meeting “Pulse Outlook 2005”, Moscow, Idaho, 8 December 2004. *Presentation Title:* Puffed lentils-the future of extruded legume snack, Market Outlook Feature Presentation.
- By special invitation:* How To Write Scientific Papers – China Agricultural University, Beijing, China, 13 October 2004.
- Research Strategy and Methods for Developing Thermal Quarantine and Phytosanitary Treatment for Postharvest Pest Control. U.S. Pacific Basin Agricultural Research Center, Hilo, Hawaii, 4 May 2004.
- Engineering in Food Industry and New Technology Development at WSU. Chemical Engineering, Department, WSU, 4 April 2004.
- Advanced Thermal Processing Technology Development at Washington State University Northwest Food Processors Association Annual Meeting, Portland, OR, 15-16 January 2004.
- 2003 **Plenary Speaker:** Northwest Food Safety and Sanitation Conference, Portland, OR, Oct. 21-22. *Presentation Title:* Emerging Food Processing Technologies.
- Plenary Speaker:** *Conference of Food Engineering*, AIChE Annual Meeting - Tutorial on Engineering Properties of Biological Materials, San Francisco, CA, 16-21 November 2003. *Presentation Title:* Dielectric Properties Related to Radio Frequency and Microwave Heating.

CONSULTING ACTIVITIES

- Invited speech on Current and Emerging Technologies in Fruit and Vegetable Processing, PepsiCo Fruit and Vegetable Research and Innovation Summit (2008, 2009, 2010).
- RF Drying Technology for Low Oil Potato Chips, Fritolay, TX (2007)
- PepsiCo International R&D Center, UK, Microwave Processing, (2009)
- ConAgra, Microwavable foods (2012-)
- McCormick, Low Moisture Food Safety (2015-)
- E&J Gallo Winery, Drying Technologies (2017-)

PROFESSIONAL SERVICES

Editorial Boards:

- Editorial Boards for
- 1) J. Food Engineering (2010-),
 - 2) International Journal of Food Engineering (2004-)
 - 3) Journal of Food Processing and Preservation (2008-)
 - 4) Journal of Microwave Power and Energy (2010-)
- Section Editor and Vice Chair of Editorial Board, International Journal of Agricultural and Biological Engineering (2008)
 - Associate Editor, J. Applied Engineering in Agriculture, Food & Process Engineering Institute of the American Society of Agricultural Engineers (2000-2012)
 - Associate Editor, Transactions of the ASAE, Food & Process Engineering Institute of the American Society of Agricultural Engineers (2000-present)
 - Contributing Editor, Advances in Agricultural Science and Technology Series Vol. 1: Advances in Bioprocessing Engineering (1998-2002)

Advisory Boards:

Scientific Advisory Board for American Institute of Frozen Foods (2014-).

LEADERSHIP IN PROFESSIONAL ORGANIZATIONS:

- **International Microwave Power Institute**
 - **President** (2009-2010)
 - Board of Governors (2005-present)
 - Annual Symposium Committee Chair (2006-2011)
 - Organizing Committee Member, 2nd World Congress on Microwave Energy Applications for 2012 (2008- present)
- **Institute of Food Technologists, Food Engineering Division**
 - **Chair** (2010-2011), Executive Officer (2006- present)
- **American Society of Agricultural and Biological Engineers**
 - Fellows Screening Committee (2017-2021)
 - Co-Chair, Task-Force for Revitalization of Food Engineering within ASABE (2014-)
 - Technical Paper Awards Committee, Food & Process Engineering Institute of ASAE (1999 - present; Chair, 2000-01)
 - Publication Committee, Food & Process Engineering Institute of ASAE (2000 - ; Chair,2001-02)
 - Organizer of technical sessions on microwave and radio frequency heating at ASAE annual meetings (1999-2007)
- **Association of Overseas Chinese Agricultural, Biological and Food Engineers**
 - **President** (2004-05), **Board of Directors** (2002- 2010), **AOC Foundation Board of Directors**

(2005-2012), **Organizing Committee** (2001), **Chair** of Meetings and Conference Committee (2002-04)

LEADERSHIP AND SERVICES AT WASHINGTON STATE UNIVERSITY

- Sub-Committee on faculty royalty split case, WSU Office of Commercialization (2017)
- WSU Distinguished Lifetime Service Award (2017-)
- Co-Chair for University 2014-2019 Strategic Planning - Outreach, Engagement and Economic Department Sub-team (2014-2015).
- Associate Chair, Department of Biological Systems Engineering (2011-present).
- Food Engineering Area Leader, Department of Biological Systems Engineering (2000-2013).
- Co-Chair, Department of Chemical Engineering and Department of Biological Systems Engineering Re-organization Committee (2007).
- Chair, Promotion and Tenure Advisory Committee, College of Agriculture and Home Economics, WSU (2004-05).
- Chair, Graduate Committee, Department of Biological Systems Engineering (2004-present).
- Chair, Postharvest/Food Engineering/Food Science Strategic Planning Team for the College of Agriculture and Home Economics (2000-01).
- Chair, WSU Food Processing Pilot Plant Committee (2000-02).
- Chair, Scholarship Committee, Department of Biological Systems Engineering (1997-01).
- Advisor of Biological Systems Engineering Student Club (1996-1998).

JOURNAL ARTICLES (* corresponding author or major advisor of graduate students listed as the first authors)

321. Yang, J., Tang, J.*, Wang, Y., Koral, T.L. 2018. Radio-frequency applications for food processing and safety. *Annual Review of Food Science and Technology* 9: 105-127.
320. Kumar, P.K., Bhunia, k., Tang, J., Rasco, BA, Takhar, P.S., Sablani, S. 2018. Thermal transition and thermo-physical properties of potato (*Solanum tuberosum L.*) var. Russet brown, *Journal of Food Measurement and Characterization* (in press).
319. Ovissipour, M., Liu, C., Unlu, G., Rasco, B., Tang, J., Sablani, S. 2018. Quality changes in chum salmon (*Oncorhynchus keta*) caviar (ikura) affected by thermal pasteurization, storage time, and packaging material, *Journal of Aquatic Food Product Technology* 27 (2), 200-210.
318. Wang, J., Tang, J.*, Liu, F., Bohnet, S. 2018. A new chemical marker-model food system for heating pattern determination of microwave- assisted pasteurization processes, *Food and Bioprocess Technology*.
317. Wang, J., Tang, J.*, Rasco, B., Sablani, S.S., Ovissipour M., Qu, Z. 2018. Kinetics of quality changes of shrimp (*Litopenaeus setiferus*) during pasteurization. *Food and Bioprocess Technology* 11(5) : 1027–1038.
316. Tadapaneni, R.K., Xu, J., Yang, R., Tang, J.* 2018. Improving design of thermal water activity cell to study thermal resistance of *Salmonella* in low-moisture foods. *LWT-Food Science and Technology* 92:371-379.
315. Quintanilla, A., Mencia, A., Powers, J., Rasco, B., Tang, J., Sablani, S.S. 2018. Vacuum impregnation of firming agents in red raspberries, *J. Science of Food and Agriculture*, DOI: 10.1002/jsfa.8878.
314. Liu, S., Rojas, R.V., Gray, P., Zhu, M.J., Tang, J.*, 2018. *Enterococcus faecium* as a *Salmonella* surrogate in the thermal processing of wheat flour: influence of water activity at high temperatures. *Food Microbiology* 74:92-99.

313. Liu, S., Tang, J.*, Tadapaneni, R., Yang, R., Zhu MJ. 2018. Exponentially increased thermal resistance of *Salmonella* and *Enterococcus faecium* at reduced water activity, *Applied and Environmental Microbiology* 84(8):e02742-17.
312. Liu, S., Ozturk, S., Xu, J., Kong, F., Gray, P., Zhu, M.J., Sablani, S. Tang J.* 2018. Microbial validation of radio frequency pasteurization of wheat flour by inoculated pack studies. *J. Food Engineering*, 217: 68-74.
311. Xu, J., Liu, S., Tang, J.*, Ozturk, S., Kong, F., Shah, D.H. 2018. Application of freeze-dried *Enterococcus faecium* NRRL B-2354 in radio-frequency pasteurization of wheat flour. *LWT-Food Science and Technology* 90: 124-131.
310. Xu, J., Liu, S., Song, J., Tang, J.*, Zhu, M.J., Gray, P., Villa-Rojas, R. 2018. Dry-inoculation method for thermal inactivation studies in wheat flour using freeze-dried *Enterococcus faecium* NRRL B-2354. *LWT-Food Science and Technology* 89: 10-17.
309. Auksornsri, T., Tang, J.*, Tang, Z., Lin, H., Songsermpong, S. 2018. Dielectric properties of rice model food systems relevant to microwave sterilization process. *Innovative Food Science and Emerging Technologies* 45: 98-105.
308. Zhang, M., Chen, H., Mujumdar, A.S., Tang, J., Miao, S., Wang, Y. 2017 Recent developments in high-quality drying of vegetables, fruits and aquatic products. *Critical Reviews in Food Science and Nutrition*. 57(6):1239-1255.
307. Tadapaneni, R.K, Yang R., Carter, B., Tang, J.* 2017. A new method to determine the water activity and the net isosteric heats of sorption for low moisture foods at elevated temperatures. *Food Research International* 102:203-212.
306. Prashant Raj Pokhrel, P., R., Bermúdez-Aguirre, D. Martínez-Flores,H.E., Garnica-Romo, M.G., Sablani, S., Tang, J., Barbosa-Cánovas, G.V. 2107. Combined effect of ultrasound and mild temperatures on the inactivation of *E. coli* in fresh carrot juice and changes on its physicochemical characteristics. *J. Food Science* 82(10):2343-2350.
305. Zhang, H., Bhunia, K., Munoz, N., Li, L., Dolgovskij, M., Rasco, B., Tang, J., Sablani S., 2017. Linking morphology changes to barrier properties of polymeric packaging for microwave-assisted thermal sterilized food. *Journal of Applied Polymer Science*. 134 (44):
304. Ovissipour, M., Rasco, B., Tang, J., Sablani, S. 2017. Kinetics of protein degradation and physical changes in thermally processed Atlantic Ssalmon (*Salmo salar*), *Food and Bioprocess Technology* 10 (10): 1865–1882.
303. Alshami, A. Tang, J.*, Rasco, B. 2017. Contribution of proteins to the dielectric properties of dielectrically heated biomaterials. *Food and Bioprocess Technology*: 10(8): 1548-1561.
302. Niu, L., Sun, XH, Tang, J., Wang, J., Rasco, BA, Lai KQ, Fan, Y., Huang, Y.Q. 2017. Formation of advanced glycation end-products in fish muscle during heating: relationship with fish freshness. *J. Food Composition and Analysis*: 63:133-138.
301. Jain, D., Wang, J., Liu, L., Tang, J*. Bohnet, S. 2017. Application of non-enzymatic browning of fructose for heating pattern determination in microwave assisted thermal pasteurization system *J. Food Engineering* 219:27-34.
300. Zhang, M., Chen, HZ, Mujumda, AS, Tang, JM., Miao, S., Wang, YC. 2017. Recent development in high-quality drying of vegetables, fruits and aquatic products. *Critical Reviews in Food Science and Nutrition* 57(6): 1239-1255.
299. Munoz, N., Bhunia, K., Zhang, H., Barbosa-Canovas, G.V., Tang, J., Sablani, S., 2017. Headspace oxygen as hurdle to improve the safe of in-pack pasteurized chilled food during storage at different temperatures. *International Journal of Food Microbiology* 253:29-35.

298. Peng, J, Tang, J*, Barrett, DM, Sablani, S, Anderson, N, Powers, JR. 2017. Thermal pasteurization of ready-to-eat foods and vegetables: *Critical factors for process design and effects on quality*. *Critical Review in Food Science and Nutrition* 57 (14); 2970–2995.
297. Peng, J., Tang, J.*, Luan, D., Liu, F., Tang, Z., Li, F., Zhang, W. 2017. Microwave Pasteurization of pre-packaged carrots. *J. Food Eng.* 202: 56-64
296. Tadapaneni, R.K., Syamaladevi, R.M., Villa-Rojas, R., Tang, J.* 2017. Design of a novel test cell to study the influence of water activity on the thermal resistance of Salmonella in low-moisture foods. *J. Food Engineering* 208: 48-56.
295. Sun, X.H., Tang, J., Wang, J., Rasco, B.A., Lai, K., Huang, Y. 2017. Formation of N-epsilon-carboxymethyllysine and N-epsilon-carboxyethyllysine in ground beef during heating as affected by fat, nitrite and erythorbate. *J. Food Measurement and Characterization* 11 (1):320-328.
294. Niu, L., Sun, X., Tang, J., Wang, J., Rasco, B.A., Lai, K., Huang, Y. 2017. Free and protein-bound N^ε-carboxymethyllysine and N^ε-carboxyethyllysine in fish muscle: Biological variation and effects of heat treatment. *J. Food Composition and Analysis*,57:56-63.
293. Luan, D., Wang, Y., Tang, J.*, Jain, D., 2017. Frequency distribution in domestic microwave ovens and its influence on heating pattern. *J. Food Sci.* 82(2):429-436.
292. Villa-Rojas, R., Zhu, M.J. Marks, B.P. Tang, J.* 2017. Radio frequency inactivation of Salmonella Enteritidis PT 30 and Enterococcus faecium in wheat flours at different water activities. *Biosystems Engineering* 156: 7-16.
291. Villa-Rojas, R., Zhu, M.J. Paul, N.C., Gray, P., Xu, J., Shah, S., Tang, J.* 2017. Biofilm forming Salmonella strains exhibit enhanced thermal resistance in wheat flour. *Food Control*.73:689-695. 283.
290. Caparino, O.A., Nindo, C.I., Tang, J.*, Sablani, S.S., Chew, B.P., Mathison, B.D., Fellman, J.K., Powers, J.R., 2017. Physical and chemical stability of Refractance Window®-dried mango (Philippine ‘Carabao’ var.) powder during storage. *Drying Technology* 35(1):25-37.
289. Caparino, O.A., Nindo, C.I. Tang, J.*, Sablani, S.S. 2017. Rheological measurements for characterizing sticky point temperature of selected fruit powders: an experiment investigation. *J. Food Engineering* 195:61-72.
288. Bornhorst E.R., Tang, J.,* Sablani, S., Barbosa-Canovas, G.V. 2017. Thermal pasteurization process evaluation using mashed potato model food with Maillard reaction products. *LWT-Food Science and Technology* 82:454-465.
287. Bornhorst E.R., Liu, F., Tang, J.,* Sablani, S., Barbosa-Canovas, G.V. 2017. Food quality evaluation using model foods: a comparison study between microwave-assisted and conventional thermal pasteurization processes. *Food and Bioprocess Technology* 10:1248-1256.
286. Bornhorst E.R., Tang, J.,* Sablani, S., Barbosa-Canovas, G.V. 2017. Development of model food systems for thermal pasteurization applications based on Maillard reaction products. *LWT-Food Science and Technology* 75:417-424.
285. Bhunia, K., Ovissipour, M., Rasco, B., Tang, J., Sablani, SS. 2017. Oxidation-reduction potential and lipid oxidation in ready-to-eat blue mussels in red sauce: criteria for package design. *J. of Food Science and Agriculture* 97:324-332.
284. Hildebrandt, I.M., Marks, B.P., Ryser, E.T., Villa-Rojas, R., Tang, J., Garces-Vega, F.J., Buchholz, S.E., 2016. Effect of inoculation procedures on variability and repeatability of Salmonella thermal resistance in wheat flour. *J. Food Protection* 79 (11): 1833-1839.

283. Alfaifi, B., Tang, J.*, Rasco, B., Wang, S., Sablani, S.S. 2016. Computer simulation analyses to improve radio frequency (RF) heating uniformity in dried fruits for insect control. *Innovative Food Science & Emerging Technologies* 37:125-137.
282. Cao, L., Rasco, B.A., Tang, J., Liu, L., Lai, K., Fan, Y. Huang, Y. 2016. Effect of freshness on the cook loss and shrinkage of grass carp (*Ctenopharyngodon idellus*) fillets following pasteurization. *International Journal of Food Properties* 19(10):2297-2306.
281. Bhunia, K., Sablani, S.S., Tang, J., Rasco, B., 2016. Non-invasive measurement of oxygen diffusion in model foods. *Food Research International* 89:161-168.
280. Bhunia, K., Zhang, H., Liu, F., Rasco, B., Tang, J., Sablani, S.S. 2016. Morphological changes in multilayer polymeric films induced after microwave-assisted pasteurization. *Innovative Food Science & Emerging Technologies* 38:124-130.
279. Syamaladevi, R.M., Tang, J.*, Zhong, Q.P. 2016. Water diffusion from a bacterial cell in low moisture foods. *J. Food Science*. 81(9): R2129-2134.
278. Hong, Y.K, Huang, Yoon, W.B., Liu, F., Tang, J. 2016. Mathematical modeling and Monte Carlo simulation of thermal inactivation of non-proteolytic *Clostridium botulinum* spores during continuous microwave-assisted pasteurization, *J. Food Engineering* 190:61-71.
277. Zhang, H.C., Tang, Z., Rasco, B., Tang, J., Sablani, S.S. 2016. Shelf-life modeling of microwave-assisted thermal sterilization mashed potato in polymeric pouches of different gas barrier properties. *J. Food Engineering*, 183:65-73.
276. Zhang, H.C., Kanishka, B., Kuang, P.Q., Tang, J.M., Rasco, B., Mattinson, D.S., Sablani, S.S. 2016. Effects of Oxygen and Water Vapor Transmission Rates of Polymeric Pouches on Oxidative Changes of Microwave-Sterilized Mashed Potato. *Food and Bioprocess Technology* 9(2): 341-351.
275. Luan, D., Tang, J.*, Pedrow, P.D., Liu, F., Tang, Z. 2016. Analysis of electric field distribution within a microwave assisted thermal sterilization (MATS) system by computer simulation. *J. Food Engineering*. 188:87-97.
274. Bornhorst, E.R., Tang, J.*, Sablani, S. 2016. Sodium chloride diffusion in low-acid foods during thermal processing and storage. *J. Food Science* 81(5):E1130-1140.
273. Sun, XH, Tang, J., Wang, J., Rasco, BA, Lai KQ, Huang, Y.Q. 2016. Formation of free and protein-bound carboxymethyllysine and carboxyethyllysine in meats during commercial sterilization. *Meat Science* 116:1-7.
272. Syamaladevi, R.M., Tang, J.*, Villa-Rojas, R., Sablani, S., Carter, B., Campbell, G. 2016. Influence of water activity on thermal resistance of microorganisms in low-moisture foods: a review. *Comprehensive Reviews in Food Science and Safety* 15:353-370.
271. Syamaladevi, R.M., Tadapaneni, R.K., Xu, J., Villa-Rojas, R., Tang, J.*, Carter, B., Sablani, S., Bradley Marks, B. 2016. Water activity change at elevated temperatures and thermal resistance of *Salmonella* in all purpose flour and peanut butter. *Food Research International* 81:163-170.
270. Bajaj, P.R., Tang, J.M., Sablani, S.S. 2015. Pea protein isolates: novel wall materials for microencapsulating faxseed oil. *Food and Bioprocess Technology* 8(12):2418-2428.
269. Shi, Y.G., Tang, J.M., Yue, T.L. Rasco, B., Wang, S.J., 2015. Pasteurizing cold smoked salmon (*oncorhynchus nerka*): thermal inactivation kinetics of *Listeria monocytogenes* and *L. innocua*, *J. Aquatic Food Product Technology* 24(7): 712-722.
268. Tang, J. 2015. Unlocking potentials of microwaves for food safety and quality. *J. Food Science* 80(8) E1776-1793. JFS Special Issue: 75 Years of Advancing Food Science, and Preparing for the next 75.

267. Jiao, Y., Shi, H., Tang, J.*, Li, F., Wang, S., 2015. Improvement of radio frequency (RF) heating uniformity on low moisture foods with Polyetherimide (PEI) blocks. *Food Research International* 74:106-114.
266. Luan, D., Tang, J.*, Liu, F., Tang, Z., Li, F., Lin, H., Bohnet, S., 2015. Dielectric properties of bentonite water pastes used for stable loads in microwave thermal processing systems. *J. Food Engineering* 161 (1):40-47.
265. Kuang, P.Q., Zhang, H.C., Bajaj, P.R. Yuan, Q.P. Tang, J.M., Chen, S.L., Sablani, S.S. 2015. Physicochemical properties and storage stability of lutein microcapsules prepared with maltodextrins and sucrose by spray drying. *J. Food Science* 80(2):E359-369.
264. Niu, L., Rasco, B.A., Tang, J., Lai, K., Huang, Y. 2015. Relationship of changes in quality attributes and protein solubility of ground beef under pasteurization conditions, *LWT-Food Science and Technology* 61 (1):19-24.
263. Nayak, B., Liu, R.H., Tang, J.* 2015. Effect of processing on phenolic antioxidants of fruits, vegetables, and grains—a review. *Critical Reviews in Food Science and Nutrition*, 55:887–918.
262. Ling, B., Tang, J., Kong, K., Mitcham, E.J., Wang, S., 2015. Kinetics of food quality changes during thermal processing. *Food and Bioprocess Technol.* 8:343–358.
261. Zhang, W., Luan, D., Tang, J.*, Sablani, S., Rasco, Lin, H., Liu, F. 2015. Dielectric properties and other physical properties of low-acyl gellan gel as relevant to microwave assisted pasteurization process. *Journal of Food Engineering* 149:195-203.
260. Resurreccion, F.P., Luan, D., Tang, J.*, Liu, F., Tang, Z., Pedrow, P.D., Cavaliere, R. 2015. Effect of changes in microwave frequency on heating patterns of foods in a microwave assisted thermal sterilization system. *Journal of Food Engineering* 150:99-105.
259. Luan, D., Tang, J.*, Pedrow, P.D., Liu, F., Tang, Z. 2015. Performance of mobile metallic temperature sensors in high power microwave heating systems, *Journal of Food Engineering* 149:114-122.
258. Sun, X., Tang, J., Wang, J., Rasco, B.R., Lai, K., Huang, Y. 2015. Formation of advanced glycation end products in ground beef under pasteurization conditions. *Food Chemistry* 172:802-807.
257. Wang, Y.Y., Zhang, L., Gao, M.X., Tang, J.M., Wang, S.J. 2014. Pilot-scale radio frequency drying of macadamia nuts: heating and drying uniformity. *Drying Technology* 32(9):1052-1059.
256. Aamir, M., Ovissipour, M., Rasco, B., Tang, J., Sablani, S. 2014. Seasonality of the thermal kinetics of color changes in whole spinach (*spinacia oleracea*) leaves under pasteurization conditions. *International Journal of Food Properties* 17(9): 2012-2024.
255. Jiao, Y., Tang, J.*, Wang, S. 2014. A new strategy to improve heating uniformity of low moisture foods in radio frequency treatment for pathogen control. *Journal of Food Engineering* 141:128-138.
254. Wang, Y., Zhang, L., Gao, M., Tang, J., Wang, S. 2014. Evaluating radio frequency heating uniformity using polyurethane foams. *Journal of Food Engineering* 136: 28-33.
253. Dhawan, S., Sablani, S.S., Tang, J.M., Barbosa-Canovas, G.V.; Ullman, J.L., Bhunia, K. 2014. Silicon migration from high-barrier coated multilayer polymeric films to selected food simulants after microwave processing treatments, *Packaging Technology and Science* 27(8):625-638.
252. Dhawan, S., Varney, C., Barbosa-Canovas, G.V., Tang, J., Selim, F., Sablani, S.S. 2014. Pressure-assisted thermal sterilization effects on gas barrier, morphological, and free volume properties of multilayer EVOH films. *Journal of Food Engineering* 128: 40-45.

251. Dhawan, S, Varney, C, Barbosa-Canovas, GV, Tang, JM, Selim, F, Sablani, SS. 2014. The impact of microwave-assisted thermal sterilization on the morphology, free volume, and gas barrier properties of multilayer polymeric films, *J Applied Polymer Science* 131 (12), Article 40376 (1-8), DOI:10.1002/APP.4036.
250. Wang, Y., Zhang, L., Johnson, J., Gao, M., Tang, J., Powers, J.R., Wang, S. 2014. Developing Hot air-assisted radio frequency drying for in-shell Macadamia nuts. *Food and Bioprocess Technology* 7: 278-288.
249. Nayak B., Berrios J.D.J., Tang J.* 2014. Impact of food processing on the glycemic index (GI) of potato products, *Food Research International* 56:35-46.
248. Peng, J., Tang, J.M.*, Barrett, D.M., Sablani, S.S. and Powers, J.R. 2014. Kinetics of carrot texture degradation under pasteurization conditions. *Journal of Food Engineering* 125:69-76.
247. Zhang, W., Tang, J.*, Liu, F., Bohnet, S., Tang, Z. 2014. Chemical marker M2 (4-hydroxy-5-methyl-3(2H)-furanone) formation in egg white gel model for heating pattern determination of microwave-assisted pasteurization processing, *Journal of Food Engineering* 125:69-76.
246. Jiao, Y., Tang, J.*, Wang, S., Koral, T. 2014. Influence of dielectric properties on the heating rate in free-running oscillator radio frequency systems. *Journal of Food Engineering* 120:197-203.
245. Alfaifi, B., Tang, J.*, Yang, J., Wang, S., Rasco, B., Jiao, S., Sablani, S. 2014. Radio frequency disinfestation treatments for dried fruits: model development and validation. *Journal of Food Engineering* 120:268-276.
244. Wang, L., Lei, H.W., Bu, Q.; Ren, S.J.; Wei, Y.; Zhu, L.; Zhang, X.S.; Liu, Y.P.; Yadavalli, G.; Lee, J.; Chen, S.L.; Tang, J. 2014. Aromatic hydrocarbons production from ex situ catalysis of pyrolysis vapor over Zinc modified ZSM-5 in a packed-bed catalysis coupled with microwave pyrolysis reactor, *Fuel* 129:78-85.
243. Bu, Q.; Lei, H.W.; Wang, L.; Wei, Y.; Zhu, L.; Zhang, X.S.; Liu, Y.P.; Yadavalli, G.; Tang, J. 2014. Bio-based phenols and fuel production from catalytic microwave pyrolysis of lignin by activated carbons. *Bioresource Technology* 162:142-147.
242. Bhunia, K., Sablani, S., Tang, J., Rasco, B. 2013. Migration of chemical compounds from packaging polymers during microwave, conventional heat treatment, and storage. *Comprehensive Reviews in Food Science and Food Safety* 12: 523-545.
241. Caparino O.A., Sablani S.S., Tang J.* Syamaladevi, R.M., Nindo C.T. 2013. Water sorption, glass transition, and microstructures of Refractance Window- and freeze-dried mango (Philippine “Carabao” Var.) powder, *Drying Technology* 31:1969-1978.
240. Wang, S. Tang, J., Johnson, J.A., Cavalieri, R.P. 2013. Heating uniformity and differential heating of insects in almonds associated with radio frequency energy. *J. Stored Products Research* 55:15-20.
239. Peng, J., Tang, J.*, Yang, J., Bohnet, S., Barrett, D.M. 2013. Dielectric properties of tomatoes assisting the development of microwave pasteurization and sterilization processes. *LWT-Food Science and Technology* 54:367-376.
238. Luan, D., Tang, J.*, Pedrow, P.D., Liu, F., Tang, Z. 2013. Using mobile metallic temperature sensors in continuous microwave assisted sterilization (MATS) systems. *Journal of Food Engineering*, 119:552-560.
237. Jiao, S., Johnson, J.A., Tang, J., Mattinson, D.S., Fellman, J.K., Davenport, T.L., Wang, S. 2013. Tolerance of codling moth, and apple quality associated with low pressure/low temperature treatment. *Postharvest Biology and Technology*. 85: 136-140

236. Wang, Y., Zhang, Li., Gao, M., Tang, J., Wang, S. 2013. Temperature and moisture dependent dielectric properties of Macadamia nut kernels. *Journal of Food and Bioprocess Technology*, 6:2165-2176.
235. Resurreccion, F.P., Tang J.*, Pedrow, P., Cavalieri, R., Liu F., Tang, Z. 2013. Development of a computer simulation model for processing food in a microwave assisted thermal sterilization (MATS) system. *Journal of Food Engineering*, 118:406-416.
234. Ovissipour M., Rasco B., Tang J., Sablani S.S. 2013. Kinetics of quality changes in whole blue mussel (*Mytilus edulis*) during pasteurization. *Journal of Food Research International*, 53: 141-148.
233. Zhang, W., Liu, F., Nindo, C., Tang, J.* 2013. Physical properties of egg whites and whole eggs relevant to microwave pasteurization. *Journal of Food Engineering*, 118:62-69.
232. Liu, Y., Wang, S., Mao, Z., Tang, J.*, Tiwari, G., 2013. Heating patterns of white bread loaf in combined radio frequency and hot air treatment. *Journal of Food Engineering*, 116:472-477.
231. Villa-Rojas, R., Tang, J., Wang, S., Gao, M., Kang, D.H., M, J.H., Gray, P., Sosa-Morales, M.E., Lopez-Malo, A. 2013. Thermal inactivation of *salmonella Enteritidis* PT 30 in almond kernels as influenced by water activity. *Journal of Food Protection*, 76(1):26-32.
230. Alfaifi, B., Wang, S.J., Tang, J. *, Rasco, B., Sablani, S., Jiao, Y. 2013. Radio frequency disinfestation treatments for dried fruit: Dielectric properties. *LWT - Food Science and Technology* 50:746-754.
229. Yan, W.Q.; Zhang, M.; Huang, L.L.; Mujumdar, A.S.; Tang, J. 2013. Influence of microwave drying method on the characteristics of the sweet potato dices. *J. Food Processing and Preservation* 37 (5): 662-669.
228. Wang, S., Tang, J., Johnson, J.A., Cavalieri, R.P. 2013. Heating uniformity and differential heating of insects in almonds associated with radio frequency energy, *J. Stored Products Research* 55:15-20.
227. Bu, Q.; Lei, H.W.; Wang, L.; Wei, Y.; Zhu, L.; Liu, Y.P.; Liang, J.; Tang, J. 2013. Renewable phenols production by catalytic microwave pyrolysis of Douglas fir sawdust pellets with activated carbon catalysts, *Bioresource Technology* 142:546-552.
226. Wang, L.; Lei, H.W.; Lee, J.; Chen, S.L.; Tang, J. ; Ahring, B. 2013. Aromatic hydrocarbons production from packed-bed catalysis coupled with microwave pyrolysis of Douglas fir sawdust pellets, *RSC Advances* 3(34):14609-14615.
225. Gao, M., Tang, J., M., Johnson, J.A., Wang, S. 2012. Dielectric properties of ground almond shells in the development of radio frequency and microwave pasteurization. *Journal of Food Engineering*, 112:282-287.
224. Feng, H. Yun, Y., Tang, J. 2012. Microwave drying of food and agricultural materials: basics and heat and mass transfer modeling. *Food Engineering Reviews* 4(2): 89-106.
223. Bu, Q., Lei, H., Zacher, A., H., Wang, L., Ren, S., Liang, J. Wei, Y., Liu, Y., Tang, J., Zhang, Q., Ruan, R. 2012. A review of catalytic hydrodeoxygenation of lignin-derived phenols from biomass pyrolysis, *Bioresource Technology* 124:470-477.
222. Peng, J., Mah,J.H, Somavat, R., Mohamed, H, Sastry, S, Tang, J.M.* 2012. Thermal inactivation kinetics of *bacillus coagulans* spores in tomato Juice. *J. Food Protection* 75:1236-1242.
221. Mokwena, K.K., Tang, J.M*. 2012. Ethylene vinyl alcohol: A review of barrier properties for packaging shelf stable foods. *Critical Reviews in Food Science and Nutrition* 52(7): 640-650.
220. Neven, L.G., Wang, S., Tang, J., 2012. An improved system to assess insect tolerance to heated controlled atmosphere quarantine treatment. *Entomologia Experimentalis et Applicata* 143(1): 95-100.

219. Villa-Rojas, R., Sosa-Morales, M.E., Lopez-Malo, A., Tang, J.* 2012. Thermal inactivation of *Botrytis cinerea* conidia in synthetic medium and strawberry puree. *International Journal of food Microbiology*, 155:269-272.
218. Jiao S., Johnson J.A., Tang J.*, Wang S. 2012. Industrial-scale radio frequency treatments for insect control in lentils. *Journal of Stored Products Research*, 48:143-148.
217. Caparino O.A., Tang J.*, Nindo C.T., Sablani S.S., Powers J.R., Fellman J.K. 2012. Effect of drying methods on the physical properties and microstructures of mango (Philippine ‘Carabao’ var.) powder. *J. Food Eng.*, 111(1):135-148.
216. Wei W., Yin H.M., Tang J.M. 2012. An optimal control problem for microwave heating, *Nonlinear Analysis-Theory Methods and Application*, 75(4):2024-2036.
215. Jiao S., Johnson J.A., Fellman J.K., Mattinson D.S., Tang J.*, Davenport T.L., Wang S. 2012. Evaluating the storage environment in hypobaric chambers used for disinfesting fresh fruits. *Biosystems Engineering*, 111 (3): 271 – 279.
214. Wang J., Luechapattaporn K., Wang Y.F., Tang, J.* 2012. Radio-frequency heating of heterogeneous food – meat lasagna. *J. Food Eng.*, 108: 183-193.
213. Wang, L.; Lei, H.W.; Ren, S.J.; Bu, Q.; Liang, J.; Wei, Y.; Liu, Y.P.; Lee, G.S.J.; Chen, S.L.; Tang, J., Zhang, Q; Ruan, R. 2013. Aromatics and phenols from catalytic pyrolysis of Douglas fir pellets in microwave with ZSM-5 as a catalyst, *J. Analytical and Applied Pyrolysis* 98:194-200.
212. Zhang, M., Zhou Y.H., Wang, S.J., Tang, J. 2012. Effects of thermal treatment on colour and texture of *Typha latifolia* L., *International Agrophysics* 26 (2): 153-158
211. Bu, Q.; Lei, H.W.; Ren, S.J.; Wang, L.; Zhang, Q.; Tang, J.; Ruan, R.G. 2012. Production of phenols and biofuels by catalytic microwave pyrolysis of lignocellulosic biomass, *Bioresource Technology* 108:274-279
210. Gupta, R., Mikhaylenko, G., Balasubramaniam V. M.; Tang, J. 2011. Combined pressure-temperature effects on the chemical marker (4-hydroxy-5-methyl-3(2H)-furanone) formation in whey protein gels. *LWT-Food Science and Technology* 44(10): 2141-2146.
209. Jiao S., Tang J., Johnson J.A., Tiwari G., Wang S. 2011. Determining radio frequency heating uniformity in mixed beans for disinfestations. *Trans. ASABE*, 54(5):1847-1855.
208. Gao M., Tang J.*, Villa-Rojas R., Wang Y., Wang S. 2011. Pasteurization process development for controlling Salmonella in in-shell almonds using radio frequency energy. *J. Food Eng.*, 104(2): 299-306.
207. Bu Q., Lei H., Ren S., Wang L., Holladay J., Zhang Q., Tang J., Ruan R. 2011. Phenol and phenolics from lignocellulosic biomass by catalytic microwave pyrolysis. *Bioresource Technol.*, 102: 7004-7007.
206. Lu X., Wang J., Hamzah A.Q.M., Al-Qadiri H.M. Ross C.F., Powers,J.R., Tang J.M., Rasco B.A. 2011. Determination of total phenolic content and antioxidant capacity of onion (*Allium cepa*) and shallot (*Allium oschaninii*) using infrared spectroscopy, *Food Chemistry*, 129 (2): 637-644.
205. Nayak B., Berrios J.D.J., Powers J.R., Tang J.*, Ji Y. 2011. Colored potatoes (*Solanum Tuberosum* L.) dried for antioxidant-rich value-added foods. *J. Food Proc. Pres.*, 35: 571–580.
204. Nayak B., Berrios J.D.J., Powers J.R., Tang J.* 2011. Thermal degradation of anthocyanins from purple potato (Cv. Purple Majesty) and impact on antioxidant capacity. *J. Agric. Food Chem.*, 59: 11040-11049.
203. Nayak B., Liu R.H., Berrios J.D.J., Tang J.*, Derito C. 2011. Bioactivity of antioxidants in extruded products prepared from purple potato and dry pea flours. *J. Agric. Food Chem.*, 59: 8233–8243.

202. Nayak B., Berrios J. J., Powers J. R., Tang J.* 2011. Effect of extrusion on the antioxidant capacity and color attributes of expanded extrudates prepared from purple potato and yellow pea flour mixes. *J. Food Sci.* 76 (6), C874 - C883.
201. Dhawan S., Gustavo V. Barbosa-Ca`novas G.V. Tang J., Sablani S.S. 2011. Oxygen barrier and enthalpy of melting of multilayer EVOH films after pressure-assisted thermal processing and during storage. *J. Applied Polymer Science* 122: 1538-1545.
200. Lee A.J., Byun B.Y., Kang D-Y., Tang J., King Y.W., Hwang H-J., Mah J. 2011. The ability of zinc to inhibit the sporulation and viability of *Clostridium sporogenes* and growth of other bacteria. *International Journal of Food Science and Technology* 46: 1494–1501.
199. Byun Y., Liu Y., Tang J., Kang D-Y., Cho H-Y., Hwang H-J., Mah J. 2011. Optimization and evaluation of heat-shock condition for spore enumeration being used in thermal-process verification: differential responses of spores and vegetative cells of *clostridium sporogenes* to heat shock. *Food Sci. Biotechnol.* 20(3): 751-757.
198. Bu Q., Hanwu Lei H., Ren S., Wang L., Holladay J., Zhang Q., Tang J., Ruan R. 2011. Phenol and phenolics from lignocellulosic biomass by catalytic microwave pyrolysis. *Bioresource Technology* 102:7004–7007.
197. Wang Y., Li Y., Wang S., Zhang L., Gao M., Tang J.* 2011. Review of dielectric drying of foods and agricultural products. *Int. J. Agric. Biol. Eng.*, 4(1): 1-19.
196. Mokwena K.K., Tang J.*, Laborie M.-P. 2011. Water absorption and oxygen barrier characteristics of ethylene vinyl alcohol films. *J. Food Engineering* 105: 436-443.
195. Tiwari G., Wang S., Tang J.*, Birla S. 2011. Computer simulation model development and validation for radio frequency (RF) heating of dry food materials. *J. Food Engineering* 105:48-55.
194. Tiwari G., Wang S., Tang J.*, Birla S. 2011. Analyses of radio frequency (RF) heating of dry food materials, Part II: model predictions. *J. Food Engineering* 104: 548-556.
193. Jiao S., Johnson J.A., Tang J.,* Tiwari G., Wang S. 2011. Dielectric properties of cowpea weevil, black eyed peas and mung beans with respect to the development of radio frequency heat treatments. *Biosystems Eng.*, 108(3): 280-291.
192. Lu X., Liu Q., Wu D., Al-Qadiri H.M., Al-Alami N.I., Kang D.H., Shin J.H., Tang J., Jabal J.M.F., Aston E.D., Rasco B.A. 2011. Using of infrared spectroscopy to study the survival and injury of *Escherichia coli* O157:H7, *Campylobacter jejuni* and *Pseudomonas aeruginosa* under cold stress in low nutrient media. *Food Microbiol.*, 28: 537-546.
191. Liu Y., Tang J.*, Mao Z., Mah J.H., Jiao S., Wang S. 2011. Quality and mold control of enriched white bread by combined radio frequency and hot air treatment. *J. Food Engineering* 104:492-498.
190. Syamaladevi, R.M., Sablani, S.S.; Tang, J., Powers, J.; Swanson, B.G. 2011. Stability of anthocyanins in frozen and freeze-dried raspberries during long-term storage: in relation to glass transition, *J. Food Science* 76(6):E414-E421.
189. Yan W.Q., Zhang M., Huang L.L., Tang J.M., Mujumdar A.S., Sun J.C. 2010. Studies on different combined microwave drying of carrot pieces. *International Journal of Food Science and Technology*, 45(10):2141-2148.
188. Gao M., Tang J.*, Wang Y., Powers J., Wang S. 2010. Almond quality as influenced by radio frequency heat treatments for disinfestations, *Postharvest Biology and Technology* 58: 225–231.
187. Nindo C.I., Powers J.R., Tang J. 2010. Thermal properties of Aloe vera powder and rheology of reconstituted gels. *Transactions of the ASABE* 53(4): 1193-1200.

186. Jing W., Tu K., Shao X., Su Z., Zhao Y., Wang S., Tang J. 2010. Effect of postharvest short hot-water rinsing and brushing treatment on decay and quality of strawberry fruit. *J. Food Qual.* 33: 262-272.
185. Yan W., Zhang M., Huang L., Tang J., Mujumdar A.S., Sun J. 2010. Study of the optimisation of puffing characteristics of potato cubes by spouted bed drying enhanced with microwave (p n/a). *J. Sci. Food Agric.* 90: 1300-1307.
184. Bastarrachea L., Dhawan S., Sablani S.S., Mah J.H., Kang D.H., Zhang J.W., Tang J.M. 2010. Biodegradable Poly(butylene adipate-co-terephthalate) Films Incorporated with Nisin: Characterization and Effectiveness against *Listeria innocua*. *J. Food Science* 75 (4): E215-E224.
183. Syamaladevia S.M., Sablani S.S., Tang J., Powers J., Swanson B.G. 2010. Water sorption and glass transition temperatures in red raspberry (*Rubus idaeus*). *Thermochimica Acta*, 503–504:90–96.
182. Wang S. Tiwari G., Jiao S., Johnson J.A. Tang J.* 2010. Developing postharvest disinfestation treatments for legumes using radio frequency energy. *Biological Systems Engineering* 105:341-349.
181. Guo W., Wang S., Tiwari G., Johnson J.A., Tang J.* 2010. Temperature and moisture dependent dielectric properties of legume flour associated with dielectric heating. *LWT-Food Science and Technology* 43:193-201.
180. Setiady D., Tang J., Younce F., Swanson B. G., Rasco B. A., Clary C. D., 2009. Porosity, color, texture and microscopic structure of russet potatoes dried using microwave vacuum, heated air and freeze drying. *Applied Engineering in Agriculture* 25 (5): 719-724.
179. Wang S., Johnson J.A., Hansen J.D., Tang J.* 2009. Determining thermotolerance of fifth-instar *Cydia pomonella* (L.) (Lepidoptera: Tortricidae) and *Amyelois transitella* (Walter) (Lepidoptera: Pyralidae) by three different methods. *J. of Stored Products* 45:184-189.
178. Sosa-Morales M.E., Tiwari G., Wang S., Tang J*. Lopez-Malo A. Garcia H.S. 2009. Dielectric heating as a potential post-harvest treatment of disinfesting mangoes I: Relation between dielectric properties and ripening, *Biosystems Engineering* 103: 297-303.
177. Sosa-Morales M.E, Tiwari G., Wang S., Tang J.*, Garcia H.S., Lopez-Malo A. 2009. Dielectric heating as a potential post-harvest treatment of disinfesting mangoes II: Development of RF-based protocols and quality evaluation of treated fruits. *Biosystems Engineering* 103:287-296.
176. Wang J., Tang J.,* Wang Y., Swanson B. 2009. Dielectric properties of egg whites and whole eggs as influenced by thermal treatments, *LWT –Food Sci. Technol.* 42(7): 1204-1212.
175. Liu YH. Tang J.*, Mao Z. 2009. Analysis of bread loss factor using modified Debye equations. *J. Food Engineering* 93:453-459.
174. Armstrong J.W., Tang J., Wang S. 2009. Thermal death kinetics of Mediterranean, Malaysian, Melon, and Oriental fruit fly (*Diptera: Tephritidae*) eggs and third instars. *J. Econ. Entomol.*, 102(2): 522-532.
173. Wang Y., Tang J.*, Rasco B., Wang S., Alshami A.A., Kong F. 2009. Using whey protein gel as a model food to study the dielectric heating properties of salmon (*Oncorhynchus gorbusha*) fillets. *LWT* 42(6):1174-1178.
172. Liu Y.H., Tang J.*, Mao Z. 2009. Analysis of bread dielectric properties using mixing equations. *J. Food Eng.* 93(1):72-79.
171. Mokwena K.K., Tang J.*, Dunne C.P., Yang T.C.S., Chow E., 2009. Oxygen transmission of multilayer EVOH films after microwave sterilization. *J. Food Engineering* 92(3): 291-296
170. Mah J.H., Kang D.H., Tang J.* 2009. Comparison of viability and heat resistance of *Clostridium*

- sporogenes* stored at different temperatures. *J. Food Sci.* 74(1): M23-M27.
169. Simaladevi R.M., Sablani S.S., Tang J., Powers J., Swanson B.G., 2009. State diagram and water adsorption isotherm of raspberry (*Rubus idaeus*). *J. Food Eng.*, 91(3): 460-467.
 168. Ramaswamy H and Tang J.* 2008. Microwave and radio frequency heating. *Food Science and Technology International*, 14(5):423-427.
 167. Guo W., Tiwari G., Tang J.*, Wang S. 2008. Frequency, moisture and temperature dependent dielectric properties of chickpea flour. *Biosystems Eng.* 101(2): 217-224
 166. Mah J.-H., Kang D.-H., Tang J.* 2008. Effects of minerals on sporulation and heat resistance of *Clostridium sporogenes*. *International Journal of Food Microbiology* 128:385-389.
 165. Huang Y., Takhar P.S., Tang J.*, Swanson B.G. 2008. Flow behavior of high acyle gellan aqueous solutions as affected by temperature, calcium and gellan concentration. *International Journal of Food Engineering*, 4(5), article 12.
 164. Tang Z., Mikhaylenko G., Liu F., Mah J.H., Tang J.*, Pandit R., Younce F., 2008. Microwave sterilization of sliced beef in gravy in 7 oz trays. *J. Food Engineering* 89(4):375-383.
 163. Birla S., Wang S., Tang J.*, Tiwari G. 2008. Characterization of RF heating of fresh fruits influenced by dielectric properties. *J. Food Engineering* 89(4):390-398.
 162. Wang S., Yue J., Chen B., Tang J.* 2008. Treatment design of radio frequency heating based on insect control and product quality. *Postharvest Biology and Technology* 49:417-423.
 161. Chen H. Tang J.*, Liu F. 2008. Simulation model for moving food packages in microwave heating processes using conformal FDTD method. *J. Food Engineering* 88:294-305.
 160. Mah JH, Kang DH, Tang J.* 2008. Morphological study of heat-sensitive and heat-resistant spores of *clostridium sporogenes*, using transmission electron microscopy. *J Food Protection* 71(5):953-958.
 159. Chung H.H., Birla S., Tang J.* 2008. Performance evaluation of aluminium test cell designed for determining the heat resistance of bacterial spores in foods. *LWT* 41:1351-1359.
 158. Wang J., Tang Z., Olsen B., Tang J.* 2008. Influence of mashed potato dielectric properties and circulation water electric conductivity on radio frequency heating, *JMPEE* 42(2): 31-46.
 157. Tiwari G. Wang S., Birla S.J., Tang J.* 2008. Effect of water-assisted radio frequency heat treatment on the quality of 'Fuyu' persimmons. *Biosystems Engineering* 100:227-234.
 156. Kong F., Tang J.*, Lin M., Rasco B. 2008. Thermal effects on chicken and salmon muscles: Tenderness, cook loss, area shrinkage, collagen solubility and microstructure. *LWT* 41:1210-1222.
 155. Wang S., Luechapattanaporn K., Tang J.* 2008. Experimental methods for evaluating heating uniformity in radio frequency systems. *Biosystems Eng.* 100:58-65.
 154. An J., Zhang M., Wang S., Tang J. 2008. Physical, chemical and microbiological changes in stored green asparagus spears as affected by coating of silver nanoparticles, *LWT* 41:1100-1107.
 153. Wang Y., Tang J.*, Rasco B., Kang F.B., Wang S. 2008. Dielectric properties of salmon fillets as a function of temperature and composition. *J. Food Engineering* 87(2):236-246.
 152. Chapalamadugu K.C., Busboom J.R., Nelson M.L., Hancock D.D., Tang J., Jasmer D.P. 2008. *Taenia taeniaeformis*: Effectiveness of staining oncospheres is related to both temperature of treatment and molecular weight of dyes utilized. *Veterinary Parasitology* 151:203-211.
 151. Zhang M., Zhan Z. G., Wang S.J., Tang J. 2008. Extending the shelf-life of asparagus spears with a compressed mix of argon and xenon gases, *Lebensmittel-Wissenschaft und-Technologie (LWT) - Food Science and Technology* 41:680-691.
 150. Kong F.B., Oliveira A., Tang J.*, Rasco B., Crapo C. 2008. Salt effect on heat-induced physical and chemical changes of salmon fillet (*O. gorbuscha*). *Food Chemistry* 106 (3):957-966.
 149. Birla S.L., Wang S., Tang J*. 2008. Computer simulation of radio frequency heating of model

- fruit immersed in water, *J. Food Eng.* 84(2):270-280.
148. Jin, T., Zhang, H., Boyd, G., Tang, J.M. 2008. Thermal resistance of *Salmonella enteritidis* and *Escherichia coli* K12 in liquid egg determined by thermal-death-time disks. *J. Food Eng.* 84 (4): 608-614.
 147. Patil, R.T., Berrios, J.D.J., Tang J*, Swanson, B.G., 2007. The evaluation of methods for expansion properties of legume extrudates. *Applied Engineering in Agriculture* 23(6):777-783.
 146. Chen, H., Tang, J.*, Liu, L., 2007. Coupled simulation of an electromagnetic heating process using the finite difference time domain method. *J. Microwave Powers and Electromagnetic Energy (JMPEE)* 41(3): 50-56.
 145. Ragni, L., Al-Ashima, A., Berardinelli, A., Mikhaylenko, G., Tang, J*. 2007. Quality evaluation of shell eggs during storage using a dielectric technique. *Trans. ASABE* 50(4):1331-1340.
 144. Pandit R.B., Tang J.*, Liu F., Mikhaylenko G. 2007. A computer vision method to locate cold spots in foods in microwave sterilization processes. *Pattern Recognition* 40 (12):3667-3676.
 143. Kong F.B., Tang J.M.*, Rasco B., Crapo C. 2007. Kinetics of salmon quality changes during thermal processing. *J. Food Eng.* 83(4):510-520.
 142. Sun T., Powers J.R., Tang J.*, 2007. Evaluation of the antioxidant activity of asparagus, broccoli and their juices. *Food Chemistry* 105: 101-106.
 141. Sun T., Powers J.R., Tan, J., 2007. Loss of rutin and antioxidant activity of asparagus juice caused by a pectolytic enzyme preparation from *Aspergillus niger*. *Food Chemistry* 105 (1):173-178.
 140. Wang S., Monzon, M., Johnson J.A., Mitcham E.J., Tang, J.* 2007. Industrial-scale radio frequency treatments for insect control in walnuts: II. Insect mortality and product quality. *Postharvest Biol. Technol.*, 45(2): 247-253.
 139. Wang S., Monzon, A., Johnson J.A., Mitcham E.J., Tang, J.* 2007. Industrial-scale radio frequency treatments for insect control in walnuts: I. Heating uniformity and energy efficiency. *Postharvest Biol. Technol.*, 45(2): 240-246.
 138. Ragni, L., Al-Shami, A., Mikhaylenko, G., Tang, J.M.* 2007. Dielectric characterization of hen eggs during storage. *J. Food Eng.* 82(4): 450-459.
 137. Sun, T., Powers, JR., Tang, J.M. * 2007. Effect of enzymatic macerate treatment on rutin content, antioxidant activity, yield, and physical properties of asparagus juice. *J. Food Sci.* 72(4): S267-S271.
 136. Chung, H.J., Wang, S.J., Tang, J.M.* 2007. Influence of heat transfer with tube methods on measured thermal inactivation parameters for *Escherichia coli*. *J. Food Prot.* 70(4):851-859.
 135. Kong, F.B., Tang, J.M.*, Rasco, B., Crapo, C., Smiley, S. 2007. Quality changes of salmon (*O. gorbuscha*) muscle during thermal processing. *J. Food Sci.* 72(2): S103-S111.
 134. Huang, Y.Q., Cavinato, A.G., Tang, J.M.*, Swanson, B.G., Lin, M.S., and Rasco, B.A. 2007. Characterization of sol-gel transitions of food hydrocolloids with near infrared spectroscopy. *Lebensmittel-Wissenschaft und-Technologie (LWT) - Food Science and Technology* 40(6):1018-1026.
 133. Nindo, C. I. and Tang J.* 2007. Refractance window dehydration technology – a novel contact drying method. *Drying Technology* 25(1-3):37-48.
 132. Nindo, C.I., Powers, J.R., Tang, J.*2007. Influence of refractance window evaporation on quality of juices from small fruits. *Lebensmittel-Wissenschaft und-Technologie (LWT)- Food Science and Technology* 40 (6):1000-1007.

131. Monzon, M.E., Biasi, B., Mitcham, E.J., Wang, S.J., Tang, J., Hallman, G. 2007. Effect of radio frequency heating on quality of “Fuyu” persimmon fruit as a treatment for control of the Mexican fruit fly quarantine treatment. *HortScience* 42(1): 125-129.
130. Buranasompob, A., Tang, J., Powers, J.R., Clark, S., Swanson, B.G. 2007. Lipoxygenase activity in walnuts and almonds. *Lebensmittel-Wissenschaft und-Technologie (LWT) Food Science and Technology* 40(5):893-899.
129. Sun, T., Powers, J.R., Tang, J.M. 2007. Enzyme-catalyzed change of antioxidants content and antioxidant activity of asparagus juice. *J. Agriculture and Food Chemistry* 55(1): 56-60.
128. Nindo, C.I., Tang, J.*, Powers, J.R., Takhar, P.S. 2007. Rheological properties of blueberry purees for processing applications, *Lebensmittel-Wissenschaft und-Technologie (LWT) -Food Science and Technology* 40 (2): 292-299.
127. Pandit, R.B., Tang, J.*, Liu, F., Pitts, M. 2007. Development of a novel approach to determine heating pattern using computer vision and chemical marker (M-2) yield. *J. Food Engineering* 78(2): 522-528.
126. Sun, T., Tang, J.M., Powers, J.R. 2007. Antioxidant activity and quality of asparagus affected by microwave-circulated water combination and conventional sterilization. *Food Chem.* 100 (2):813-819.
125. Hansen, J. D., Drake, S. R., Watkins, M. A., Heidt, M. L., Anderson, P. A., Tang, J. 2006. Radio frequency pulse application for heating uniformity in postharvest codling moth (Lepidoptera: Tortricidae) control of fresh apples (*Malus domestica* Borkh.). *Journal of Food Quality* 29 (5): 492-504.
124. Hansen J.D., Drake S.R., Heidt M.L., Watkins M.A., Tang J. and Wang S. 2006. Radio frequency-hot water dips for postharvest codling moth control in apples. *J. Food Processing & Preservation* 30: 631-642.
123. Yin, X., Wang, S., Tang, J.*, Hansen, J.D., Lurie, S. 2006. Thermal conditioning of fifth instar *Cydia pomonella* (Lepidoptera: Tortricidae) affects HSP 70 accumulation and insect mortality. *Physiological Entomology* 31(3):241-247.
122. Zhang, M., Tang, J.*, Mujumdar, A.S., Wang, S. 2006. Trends in microwave-related drying of fruits and vegetables. *Trends in Food Science & Technology* 17(10):524-534.
121. Wang, S., Tang, J.*, Sun, T., Mitcham, E.J., Koral, T., Birla, S.L. 2006. Considerations in design of commercial radio frequency treatments for postharvest pest control in inshell walnuts. *Food Engineering* 77:304-312.
120. Pandit, R.B., Tang, J.*, Mikhaylenko, G., Liu, F. 2006. Kinetics of chemical marker M-2 formation in mashed potato - A tool to locate cold spots under microwave sterilization, *J. Food Engineering* 76(3): 353-361.
119. Wang, S., Birla, S.L., Tang, J.*, Hansen, J.D. 2006. Post-harvest treatment to control codling moth in fresh apples using water assisted radio frequency heating. *Postharvest Biology and Technology* 40(1): 89-96.
118. Yin, X., Wang, S., Tang, J.*, Hansen, J.D. 2006. Thermal resistance of fifth-instar *Cydia pomonella* (L.) (Lepidoptera: Tortricidae) as affected by pretreatment conditioning. *Journal Stored Products Research* 42 (1):75-85.
117. Hallman G.J. Wang, S.J., Tang, J. M*. 2005. Reaction orders for thermal mortality of third instars of Mexican fruit fly (Diptera: Tephritidae). *J. Economic Entomology* 98(6):1905-1910.
116. Reyes-De-Corcurera, J.I., Cavalieri, R.P., Powers, J.R., Tang, J.M., Kang, D.H. 2005. Enzyme-electropolymer-based amperometric biosensors: An innovative platform for time-temperature integrators. *J. Agricultural and Food Chemistry* 53(23):8866-8873.

115. Wang, S., Monzon, M., Gazit, Y., Tang, J.*, Mitcham, E.J., Armstrong, J.W. 2005. Temperature dependent dielectric properties of selected subtropics and tropical fruits and associated insect pests, *Trans. ASAE* 48(5): 1873-1881.
114. Drake S.R., Hansen, J.D., Elfving, D.C., Tang, J. and Wang, S. 2005. Hot water to control codling moth in sweet cherries: efficacy and quality. *Journal of Food Quality* 28(4): 361-376.
113. Birla, S.L., Wang, S., Tang, J.*, Fellman, J.K., Mattinson, D.S., Lurie, S. 2005. Quality of oranges as influenced by potential radio frequency heat treatments against Mediterranean fruit flies. *Postharvest Biology and Technology*, 38(1):66-79.
112. Hansen, J.D., Drake, S.R., Heidt, M.L., Watkins, M.A., Tang, J., Wang, S. J. 2005. Evaluation of Radio frequency-hot water treatments for postharvest control of codling moth in 'Bing' sweet cherries. *HortTechnology* 15(3):613-616.
111. Al-Holy, M., Wang, Y.F., Tang, J.M., and Rasco, B. 2005. Dielectric properties of salmon (*Oncorhynchus keta*) and sturgeon (*Acipenser transmontanus*) caviar at radio frequency (RF) and microwave (MW) pasteurization frequencies. *J. Food Engineering* 70(4): 564-570.
110. Luechapattaporn, K., Wang, Y.F., Wang, J., Tang, J.M.*, Hallberg, L.M, Dunne, C.P. 2005. Sterilization of scrambled eggs in military polymeric trays by radio frequency energy. *J Food Sci.* 70(4):E288-E294.
109. Nindo, C.I., Tang, J*., Powers, J.R., Singh, P. 2005. Viscosity of blueberry and raspberry juices for processing applications, *J. Food Engineering* 69(3): 343-350.
108. Wang S., Johnson J.A., Tang J*., and Yin, X. 2005. Heating condition effects on thermal resistance of fifth-instar *Amyelois transitella* (Walker) (Lepidoptera: Pyralidae). *J. Stored Prod. Res.*, 41(4): 469-478.
107. Sun, T., Tang, J.M., Powers, J.R. 2005. Effect of commercial pectolytic enzyme preparations on the phenolic composition and antioxidant activity of asparagus juice. *J. Agr. Food Chem.* 53(1):42-48.
106. Wang S., Yue J., Tang J*., and Chen, B. 2005. Mathematical modeling of heating uniformity for in-shell walnuts subjected to radio frequency treatments with intermittent stirrings. *Postharvest Biology and Technology* 35(1): 97-107.
105. Akarapu, R., Li, B.Q., Huo, Y., Tang, J., Liu, F. 2004. Integrated modeling of microwave food processing and comparison with experimental measurements. *J. Microwave Power and Electromagnetic Energy* 39(3&4): 153-165.
104. Chan, T.V., Tang, J*., Younce, F. 2004. 3-dimensional numerical modelling of an industrial radio frequency heating system using finite elements. *J. Microwave Power and Electromagnetic Energy* 39(2):87-105.
103. Johnson, J.A., Valero, K.A., Wang, S., Tang, J. 2004. Thermal death kinetics of red flour beetle, *Tribolium castaneum* (Coleoptera: Tenebrionidae), *J. Economic Entomology* 97(6): 1868-1873.
102. Hansen, J.D., Drake, S.R., Heidt, M.L., Watkins, M.A., Tang, J. and Wang, S. 2004. Radio frequency treatments for postharvest codling moth control in fresh apples. *HortTechnology* 14(4):533-537.
101. Gozit, Y., Rossler Y., Wang, S., Tang, J*., Lurie, S. 2004. Thermal death kinetics of egg and third instar Mediterranean fruit fly (Diptera:Tephritidae). *J. Econ. Entomology* 97(5):1540-1546.
100. Luechapattaporn, K., Wang, Y., Wang, J., Al-Holy, M., Kang, D.H., Tang, J*., Hallberg, L.M. 2004. Microbial safety in radio frequency processing of packaged foods. *J. Food Sci.* 67(7):M201-M206.
99. Nindo, C.I., Tang, J*., Powers, J.R. and Bolland, K. 2004. Energy consumption during refractance window ® evaporation of selected berry juices. *International J Energy Research*

- 28(12):1089-1100.
98. Wang, S., Tang, J.* 2004. Radio frequency heating: a potential method for post-harvest control of pests in nuts and dry products. *J. Zhejiang University SCIENCE* 5(10):1169-1174.
 97. Komarov, V.V., Tang, J.M.* 2004. Dielectric permittivity and loss factor of tap water at 915 MHz. *Microwave and Optical Technology Letters* 42(5): 419-420.
 96. Hansen, J.D., Wang, S., Tang, J.* 2004. A cumulated lethal time model to evaluate efficacy of heat treatments for codling moth *Cydia pomonella* (L.) (Lepidoptera: Tortricidae) in cherries. *Postharvest Biology and Technology* 33(3): 309-317.
 95. Birla, S.L., Wang, S., Tang, J,* Hallman, G. 2004. Improving heating uniformity of fresh fruit in radio frequency treatments for pest control. *Postharvest Biology and Technology* 33(2):205-217.
 94. Wang, S., Yin, X., Tang, J.*, Hansen, J.D. 2004. Thermal resistance of different life stages of codling moth (Lepidoptera: Tortricidae). *J. Stored Products Res.* 40(5): 565-574.
 93. Mitcham, E.J., Veltman, R.H., Feng, X., de Castro, E., Johnson, J.A, Simpson, T.L., Biasi, W.V., Wang, S., Tang, J. 2004. Application of radio frequency treatments to control insects in in-shell walnuts. *Postharvest Biology and Technology* 33(1): 93-100.
 92. Huang, Y.Q., Singh, P. P., Tang, J.M.*, Swanson, B.G. 2004. Gelling temperatures of high acyl gellan as affected by monovalent and divalent cations with dynamic rheological analysis. *Carbohydrate Polymers* 56(1):27-33.
 91. Wang, Y., Lau, M.H., Tang, J.*, and Mao, R. 2004. Kinetics of chemical marker M-1 formation in whey protein gels for developing sterilization processes based on dielectric heating. *J. Food Engineering* 64(1):111-118.
 90. Guan, D., Cheng, M., Wang, Y., Tang, J*. 2004. Dielectric properties of mashed potatoes relevant to microwave and radio-frequency pasteurization and sterilization processes. *J. Food Sci.* 69(1):FED30-FED37.
 89. Feng, X.Q., Hansen, J.D., Biasi, B., Tang, J.M., Mitcham, E.J. 2004. Use of hot water treatment to control codling moths in harvested California 'Bing' sweet cherries, *Postharvest Biology and Technology* 31(1):41-49.
 88. Feng, H., Tang, J*., and Plumb, O.A., Cavalieri, R.P. 2004. Intrinsic and relative permeability for flow of humid air in unsaturated apples tissues. *J. Food Engineering* 62(2):185-192.
 87. Al-Holy, M., Quinde, Z., Guan, D., Tang, J., and Rasco, B. 2004. Thermal inactivation of *listeria innocua* in salmon (*Oncorhynchus keta*) caviar using conventional glass and novel aluminum TDT tubes. *J. Food Protection* 67(2):383-386.
 86. Buranasompob, A., Tang, J.M. and Mao, R., Swanson, B.G., 2003. Rancidity of walnuts and almonds affected by short-time treatments for insect control, *J. Food Processing and Preservation* 27(16):445-464.
 85. Huang, Y.Q., Tang, J.M.*, Swanson, B.G., Rasco, B.A. 2003. Effects of calcium concentration on textural properties of high and low acyl mixed gellan gels, *Carbohydrate Polymers* 54(4):517-522.
 84. Raviyan, P., Tang, J.M., Orellana, L., Rasco, B. 2003. Physicochemical properties of a time-temperature indicator based immobilization of *Aspergillus oryzae* α -amylase in polyacrylamide gel as affected by degree of cross-linking agent and salt content. *J. Food Sci.* 68(7):2302-2308.
 83. Raviyan, P., Tang, J.M., and Rasco, B.A. 2003. Thermal stability of alpha-amylase from *Aspergillus oryzae* entrapped in polyacrylamide Gel, *J. Agr. and Food Chemistry* 51(18):5462-5466.
 82. Pathak, S., Liu, F., and Tang, J*. 2003. Finite difference time domain (FDTD) characterization of a single mode applicator. *J. Microwave Powers and Electromagnetic Energy* 38(1): 37-48.

81. Wang, S., Tang, J.*, Cavaliere, R.P., Davis, D.C. 2003. Differential heating of insects in dried nuts and fruits associated with radio frequency and microwave treatments, *Trans. ASAE* 46(4):1175-1182.
80. Lau, M.H., Tang, J*., Taub, I.A., Yang, T.C.S., Edwards, C.G. and Mao, R. 2003. Kinetics of chemical marker formation in whey protein gels for studying high temperature short time microwave sterilization. *J. Food Engineering* 60(4):397-405.
79. Nindo, C.I., Sun, T., Wang, S.W., Tang, J.*, and Powers, J.R. 2003. Evaluation of drying technologies for retention of physical quality and antioxidants in asparagus (*Asparagus officinalis*, L.). *LWT-Food Science and Technology* 36(5): 507-516.
78. Nindo, C.I., Feng, H., Shen, G.Q., Tang, J*., and Kang, D.H. 2003. Energy utilization and microbial reduction in a new film drying system. *J. Food Processing and Preservation* 27(2):117-136.
77. Huang, Y.Q., Tang, J.M.*, Swanson, B.G., Cavinato, A.G., Lin, M.S., Rasco, B.A. 2003. Near infrared spectroscopy: a new tool for studying physical and chemical properties of polysaccharide gels. *Carbohydrate Polymers* 53(3):281-288.
76. Guan, D., Gray, P., Kang, DH, Tang, J.*, Shafer, B., Ito, K., Younce, F., and Yang, T.C.S. 2003. Microbiological validation of microwave-circulated water combination heating technology by inoculated pack studies, *J. Food Sci.* 68(4):1428-1432.
75. Wang, S., Tang, J*., Johnson, J.A., Mitcham, E., Hansen, J.D., Hallman, G., Drake, S.R., and Wang, Y. 2003. Dielectric properties of fruits and insect pests as related to radio frequency and microwave treatments. *Biosystems Engineering* 85(2):201-212.
74. Tang, J*., Wang, S., Hansen, J., Johnson, J., Mitcham, E., Drake, S., and Hallman, G. 2003. Postharvest control of insect pests in nuts and fruits based on radio frequency energy. *Acta Hort* 599: 175-181.
73. Johnson, J.A., Wang, S., and Tang, J.* 2003. Thermal death kinetics of fifth-instar *Plodia interpunctella* (Lepidoptera:Pyralidae). *J. Economic Entomology* 96(2):519-524.
72. Wang, Y., Wig, T.D., Tang, J.,* and Hallberg, L.M. 2003. Sterilization of foodstuffs using radio frequency heating. *J. Food Sci.* 68(2):539-544.
71. Wang, Y.F., Wig, T.D., Tang, J.M.*, and Hallberg, L.M. 2003. Dielectric properties of foods relevant to RF and microwave pasteurization and sterilization. *J. Food Engineering* 57(3):257-268.
70. Guan, D.S., Plotka, V. C. F., Clark, S., and Tang, J.M.* 2002. Sensory evaluation of microwave treated macaroni and cheese. *J. Food Processing and Preservation* 26(5):307-322.
69. Yin, H., Li, B., and Tang, J. 2002. Optimal control of microwave sterilization in food processing. *International Journal of Applied Mathematics* 10 (1):13-31.
68. Wang, S., Tang, J.*, Johnson, J.A., Mitcham, E., and Hansen, J.D., Cavaliere, R.P. 2002. Process protocols based on radio frequency energy to control field and storage pests in in-shell walnuts. *Postharvest Biology and Technology* 26(3):265-273.
67. Yang, W., Sokhansanj, S., Tang, J., and Winter, P. 2002. Determination of thermal conductivity, specific heat and thermal diffusivity of borage seeds. *J. Biosystems Engineering* 82(2):167-176.
66. Wang, S., Tang, J.*, Johnson, J.A., and Hansen, J.D. 2002. Thermal death kinetics of fifth instar *Amyelois transitella* (Walker) (Lepidoptera: Pyralidae). *J. Stored Products Research* 38(5): 427-440.
65. Wang, S., Ikediala, J.N., Tang, J.*, and Hansen, J.D. 2002. Thermal death kinetics and heating rate effects for 5th instar *Cydia pomonella* (L.) (Lepidoptera: Tortricidae). *J. Stored Products Research* 38(5):441-453.

64. Abonyi, B.I., Feng, H., Tang, J. I*, Edwards, C.G., Chew, B.P., Mattinson, D.S., Fellman, J.K. 2002. Quality retention in strawberries and carrots dried with refractance window (TM) system. *J. Food Science* 67(3):1051-1056.
63. Feng, H., Tang, J. *, Cavaliere, R.P. 2002. Dielectric properties of dehydrated apples as affected by moisture and temperature. *Trans. ASAE* 45(1):129-135.
62. Lau, M.H., Tang, J.* 2002. Pasteurization of pickled asparagus using 915 MHz microwaves. *J. Food Engineering* 51(4): 283-290.
61. Ikediala, J.N., Hansen, J.D., Tang, J.*, Drake, S.R., Wang, S. 2002. Development of a saline water immersion technique with RF energy as a postharvest treatment against codling moth in cherries. *Postharvest Biology and Technology* 24(1):209-221.
60. Wang, S. and Tang, J.* 2001. Radio frequency and microwave alternative treatments for insect control in nuts: a review. *Agricultural Engineering Journal* 10(3&4):105-120.
59. Lau, M.H., Tang, J.*, Paulson, A.T. 2001. Effect of polymer ratio and calcium concentration on gelation properties of gellan/gelatin mixed gels. *Food Research International* 34(10):879-886.
58. Feng, H., Tang, J. *, Cavaliere, R.P. and Plumb, O.A. 2001. Heat and mass transport in microwave drying of porous materials in a spouted bed, *AIChE Journal* 47(7):1499-1512.
57. Wang, S., Tang, J. *, Cavaliere, R.P. 2001. Modeling fruit internal heating rates for hot air and hot water treatments. *Post-harvest Biology and Technology* 22(3):257-270.
56. Mao, R., Tang, J.* and Swanson, B.G. 2001. Water holding capacity and microstructure of gellan gels. *Carbohydrate Polymers* 46(4):365-371.
55. Tang, J. *, Mao, R., Tung, M.A., Swanson, B.G. 2001. Gelling temperature, gel clarity and texture of gellan gels containing sucrose or fructose. *Carbohydrate Polymers* 44(3):197-209.
54. Wang, S., Ikediala, J.N., Tang, J. *, Hansen, J.D., Micham, E., Mao, R., Swanson, B. 2001. Radio frequency treatments to control codling moth in in-shell walnuts. *Postharvest Biology and Technology* 22 (1):29-38.
53. Lau, M.H., Tang, J. * and Paulson, A. 2000. Texture profile and turbidity of gellan/gelatin mixed gels. *Food Research International* 33(8):665-671.
52. Tang, J. *, Ikediala, J.N., Wang, S., Hansen, J.D., Cavaliere, R.P. 2000. High-temperature-short-time thermal quarantine methods. *Postharvest Biology and Technology*. Special Heat Issue, 21(1):129-145 (Invited Paper).
51. Ikediala, J.N., Tang, J. * and Drake, S.R. and Neven, L.G. 2000. Dielectric properties of apple cultivars and codling moth larvae. *Trans. ASAE* 43(5):1175-1184.
50. Lau, M.H., Tang, J. * and Swanson, B.G. 2000. Kinetics of textural and color changes in green asparagus during thermal treatments. *J. Food Engineering* 45:231-236.
49. Mao, R., Tang, J. * and Swanson, B.G. 2000. Relaxation time spectrum of hydrogels by CONTIN analysis - featured as Concise Reviews and Hypothesis in Food Science in *J. Food Science* 65(3):374-381.
48. Feng, H., Tang, J. *, Dixon-Warren, S.J. 2000. Determination of moisture diffusivity of red delicious apple tissues by thermogravimetric analysis. *Drying Technology-Theme Issue: Material Properties and Techniques for Their Measurement and Estimation* 18(6):1183-1199.
47. Ikediala, J.N., Tang, J. * and Wig, T. 2000. A heating block system for studying thermal death kinetics of insect pests. *Trans. ASAE* 43(2):351-358.
46. Mao, R., Tang, J. * and Swanson, B.G. 2000. Texture properties of high and low acyl mixed gellan gels. *Carbohydrate Polymers* 41(4):331-338.

* Senior author (see definition in the promotion manual of the College of Agric. and Home Economics, WSU, April, 2002).

45. Wang, D.H., Tang, J.M*, and Correia, L.R. 2000. Salt diffusivities and salt diffusion in farmed Atlantic salmon muscle as influenced by rigor mortis, *J. Food Eng.* 43(2):115-123.
44. Feng, H., Tang, J.M.*, Mattinson, D.S. and Fellman, J.K. 1999. Microwave and spouted bed drying of frozen blueberries: The effect of drying and pretreatment methods on physical properties and retention of flavor volatiles. *J. Food Processing and Preservation* 23(6):463-479.
43. Mao, R.S., Tang, J.M.* and Swanson, B.G. 1999. Textural properties of gellan gels as affected by temperature. *J. Texture Studies* 30(4):409-433.
42. Ikediala, J.N., Tang, J.*, Neven, L.G. and Drake, S.R. 1999. Quarantine treatment of cherries using 915 MHz microwaves: temperature mapping, codling moth mortality and fruit quality. *Postharvest Biology and Technology* 16 (2):127-137.
41. Feng, H., Tang, J.* and Cavalieri, R.P. 1999. Combined microwave and spouted bed drying of diced apples: Effect of drying conditions on drying kinetics and product temperature, *Drying Technology - The Hall Issue – In Honor of Dr. Hall, former Dean of WSU Engineering College and Founder of Drying Technology* 17(10):1981-1998 (an invited paper, and the 1st article of the issue).
40. Mao, R.S., Tang, J.M.* and Swanson, B. 1999. Effect of pH buffers on mechanical properties of gellan gels. *J. Texture Studies* 30(2):151-166.
39. Mao, R., Tang, J.* and Swanson, B.G. 1999. Gelling temperatures of gellan solutions as affected by citrate buffers. *J. Food Sci.* 64(4):648-652.
38. Lu, L., Tang, J.* and Ran, X. 1999. Temperature and moisture changes during microwave drying of sliced food. *Drying Technology-Special Issue on Drying and Dewatering in Energy Fields* 17(3):413-432 (an invited paper).
37. Tang, J.M.*, Tung, M.A. and Zeng, Y. 1998. Characterization of gellan gels using stress-relaxation. *J. Food Eng.* 38 (3): 279-295.
36. Herve, A.G., Tang, J.*, Luedecke, L. and Feng, H. 1998. Dielectric properties of cottage cheese and surface treatment using microwaves. *J. Food Eng.* 37(4):389-410.
35. Feng, H. and Tang, J*. 1998. Microwave finish drying of diced apples in a spouted bed. *J. Food Sci.* 63(4):679-683.
34. Wang, D., Tang, J.*, Correia, L.R., and Gill, T.A. 1998. Postmortem changes of cultivated Atlantic salmon and their effects on salt uptake. *J. Food Sci.* 63(4):634-637.
33. Lu, L., Tang, J*. and Liang, L. 1998. Moisture distribution in spherical foods in microwave drying. *Drying Technology* 16(3-5):503-524.
32. Wang, D., Correia, L.R. and Tang, J*. 1998. Modelling of salt diffusion in Atlantic salmon muscle. *Can. Agric. Eng.* 40(1):29-34.
31. Yang, W., Sokhansanj, S., Cenkowski, S., Tang, J. and Wu, Y. 1997. A general model for sorption hysteresis in food materials. *J. Food Eng.* 33(3-4):421-444.
30. Yang, W., Sokhansanj, S., Tabil, L., Tang, J. and Yannacopoulos, S. 1997. Measurement of heat capacity for borage seeds by differential scanning calorimetry. *J. Food Processing and Preservation* 21(5):395-407.
29. Tang, J.*, Tung, M.A. and Zeng, Y. 1997. Gelling properties of gellan solutions containing monovalent and divalent cations. *J. Food Sci.* 62(4):688-692,712.
28. Sosulski, K., Wang, S.M., Ingledeu, W.M., Sosulski, F. and Tang, J. 1997. Preprocessed barley, rye and triticale as a feedstock for an integrated fuel ethanol feedlot plant. *Applied Biochemistry and Biotechnology* 63-65:59-70.
27. Tang, J.M.*, Tung, M.A., Lelievre, J. and Zeng, Y. 1997. Stress-strain relationships for gellan gels in tension, compression and torsion. *J. Food Eng.* 31(4):511-529.
26. Tang, J.*, Tung, M.A. and Zeng, Y. 1997. Gelling temperature of gellan solutions containing calcium ions. *J. Food Sci.* 62(2):276-280.

25. Tang, J.M.*, Tung, M.A. and Zeng, Y.Y. 1996. Compression strength and deformation of gellan gels formed with mono- and divalent cations. *Carbohydrate Polymers* 29(1):11-16.
24. Gao, Y.C., Lelievre, J. and Tang J*. 1995. A theoretical analysis of stress concentrations in gels containing spherical fillers. *Transactions of the ASAE* 38(6):1813-1820.
23. Tang, J.M.*, Tung, M.A. and Zeng, Y. 1995. Mechanical properties of gellan gels in relation to divalent cations. *J. Food Sci.* 60(4):748-752.
22. Lim, L.T., Tang, J.M.*, and He, J.S. 1995. Moisture sorption characteristics of freeze dried blueberries. *J. Food Sci.* 60(4):810-814.
21. Tang, J.*, Sokhansanj, S. and Sosulski, F.W. 1994. Moisture-absorption characteristics of Laird lentils and hardshell seeds. *Cereal Chem.* 71(5):423-428.
20. Tang, J.M.* and Sokhansanj, S. 1994. A model for thin-layer drying of lentils. *Drying Technology* 12(4):849-867.
19. Tang, J.M.*, Lelievre, J., Tung, M.A. and Zeng, Y. 1994. Polymer and ion concentration effects on gellan gel strength and strain. *J. Food Sci.* 59 (1):216-220.
18. Tung, M.A., Britt, I.J. and Tang, J*. 1994. Mechanical properties and strength of food polymer gels. *Tezukayama College Food Sciences* 16:5-14.
17. Tang, J.* and Sokhansanj, S. 1993. Moisture diffusivity in laird lentil seed components. *Transactions of the ASAE* 36(6):1791-1798.
16. Tang, J.* and Sokhansanj, S. 1993. Geometric changes in lentil seeds caused by drying. *J. Agric. Engng. Res.* 56(4):313-326.
15. Tang, J.* and Sokhansanj, S. 1993. Drying parameter effects on lentil see viability. *Transactions of the ASAE* 36(3): 855-861.
14. Gao, Y.C., Lelievre, J. and Tang, J*. 1993. A constitutive relationship for gels under large deformation. *J. Texture Studies* 24(3):239-251.
13. Lelievre, J., Mirza, I. and Tang, J.M.* 1992. Measurement of the tensile failure of gels. *J. Texture Studies* 23 (3): 349-358.
12. Tang, J.*, Sokhansanj, S., Sosulski, F.W. and Slinkard, A.E. 1992. Effect of harvest methods on moisture content and quality of lentil seeds. *Can. J. Plant Science* 72:451-456.
11. Tang, J.*, Sokhansanj, S., Yannacopoulos, S. and Kasap, S.O. 1991. Specific-heat capacity of lentil seeds by differential scanning calorimetry. *Transactions of the ASAE* 34(2):517-522.
10. Tang, J*. and Sokhansanj, S. 1991. Determination of moisture content in whole lentils. *Transactions of the ASAE* 34(1):255-256.
9. Tang, J.*, Sokhansanj, S., Sosulski, F.W., Slinkard, A.E. 1991. Lentils quality-effects of artificial drying and 6 month storage. *Can. Inst. Food Sci. Technol. J.* 24(5):283-286.
8. Tang, J.M.*, Sokhansanj, S. and Sosulski F. 1991. Determination of the breakage susceptibility of lentil seeds. *Cereal Chem.* 68(6):647-650.
7. Tang, J.* and Jofriet, J.C. 1991. Hydraulic conductivity of whole plant corn silage. *Can. Agric. Eng.* 33(1):161-167.
6. Sokhansanj, S., Falacinski, A.A., Sosulski, F.W., Jayas, D.S. and Tang, J. 1990. Resistance of bulk lentil to air flow. *Transactions of the ASAE* 33(4):1281-1285.
5. Tang, J.*, Sokhansanj, S., Slinkard, A.E. and Sosulski, F.W. 1990. Quality of artificially dried lentils. *J. Food Process Eng.* 13(3):229-238.
4. Tang, J.*, Sokhansanj, S., Sosulski, F.W., Slinkard, A.E. 1990. Effect of swathing and moisture content on seed properties of laird lentils. *Can. J. Plant Science* 70(4):1173-1178.
3. Tang, J*. and Jofriet, J.C. 1989. Simulation of consolidation and liquid flow in a farm tower silo. *Can. Agric. Eng.* 31:167-174.
2. Tang, J.*, Jofriet, J.C. and LeLiever, B. 1988. A saturation criterion for ensiled plant materials.

Can. Agric. Eng. 30:93-98.

1. Tang, J.*, Jofriet, J.C. and LeLiever, B. 1988. Juice flow from silage. *Can. Agric. Eng.* 30:99-106.

BOOKS

3. Awuah, G.B., Ramaswamy, H.S., Tang, J., 2014. *Radio Frequency-Heating in Food Processing, Principles and Applications, CRC Press Series: Electro-Technologies for Processing* CSC Press, New York (404 pages).
2. Tang, J., Wang, S., Mitcham, E.J., Laurie, E., 2007. *Heat Treatments for Postharvest Pest Control: Theory and Practice.* CABI Publishing, Wallingford, Oxon, UK (349 pages).
1. Young, X. and Tang, J. 2002. *Advances in Bioprocessing Engineering, Vol. 1 of Advances in Agricultural Science and Technology Series.* World Scientific Publisher, New Jersey, (172 pages).

BOOK CHAPTERS

17. Zhang, H., Bhunia, K., Tang, J., Sablani, S. 2018. Packaging technology for microwave sterilization. In *Packaging for Nonthermal Processing of Food*, 2nd Edition. IFT Press Series, Wiley & Sons, New York.
16. Luechapattanaorn, K., Wang, Y., Wang, J., Tang, J., Hallberg, L.M., Dunne, C.P. 2013. Application of radio frequency for military group ration package. In *Innovation in Healthy and Functional Foods*. Ed. D Ghosh, S. Das, D. Bagchi and R.B. Smarta. CRC Press, New York., 305-317.
15. Chen, H., Tang, J. 2011. Computer simulation for microwave heating, *In Innovative Food Processing Technologies: Advances in Multiphysics Simulation*. Ed. K. Knoerzer, P. Juliano, P. Roupas, C. Versterg. Wiley-Blackwell & IFT Press Series. 101-130.
14. Tang, J., Resurreccion, F.O., JR. 2009. Electromagnetic basis of microwave heating, in *Development of Packaging and Products for Use in Microwave Ovens*. Ed. M.W. Lorence and P.S. Pesheck (eds.). Woodhead Publishing Lt., Oxford, UK. 1-37.
13. Tang, J. 2008. Fiber-optic sensors for temperature and pressure measurements, *In Encyclopaedia of Agricultural and Food Engineering*, D. R. Heldman (e.d.). Marcel Dekker, Inc., New York.
12. Tang, J. and Chan, T.V. 2007. Microwave and radio frequency in sterilization and pasteurization applications. *In Heat Transfer in Food Processing- Recent Developments and Applications.* Yanniotis, E.S., and Sunden, B. (Edit) Wessex Institute of Technology (WIT) Press, Southampton, UK, 101-157.
11. Tang, J. and Wang, J. 2005. Advanced thermal treatments for insect pest control in fruits and nuts - principle and applications. In *Crops – Growth, Quality and Biotechnology*. Pirtta Halttu-Dris (Ed.). WFL Publisher, Helsinki, Finland, 967-989.
10. Tang, J. 2005. Dielectric properties of foods. In *Microwave Processing of Foods*. H. Schubert and M. Regier (Ed.), CRC Press, Woodhead Publishing Limited, Cambridge, UK, 22-40.
9. Komarov, V., Wang, S., Tang, J., 2005 Permittivity and Measurement, *Wiley Encyclopedia on RF and Microwave Engineering*. Vol.4, 3693-3711.
8. Tang, J., Wang, Y.F., Chow Ting Chan, T.V. 2005. Radio frequency heating in food processing. *In Novel Food Processing Technologies*. Gustavo V. Barbosa-Canovas; Maria S. Tapia; M. Pilar Cano (eds.), CRC Press, New York, 501-524.
7. Wang, S. and Tang, J. 2004. Radio frequency post-harvest quarantine and phytosanitary treatments to control insect pest in fruits and nuts. In *Production Practices and Quality*

- Assessment of Food Crops*. Vol. 4. Postharvest Treatment and Technology. R. dris and S.M. Jain (eds.), Kluwer Academic Publishers, Netherlands, 17-53.
6. Akarapu, R., Li, B.Q. and Tang, J. 2004. An integrated model for microwave thermal processing, in *Multiphase Phenomena and CFD Modeling and Simulation in Materials Processing* L. Nastec and B. Q. Li (Eds.), TMS, 43-54.
 5. Tang, J., and Yang, T. 2003. Dehydrated vegetables: principles and systems. *Handbook of Vegetable Preservation and Processing*. (ed.) Hui, Y.H., Marcel Dekker, Inc., New York, 335-372.
 4. Feng, H., Shen, Q., and Tang, J. 2003. Drum drying, in *Encyclopaedia of Agricultural and Food Engineering*, D. R. Heldma (e.d.). Marcel Dekker, Inc., New York, 211 – 214.
 3. Wang, S., Tang, J., and Younce, F. 2003. Temperature measurement in food processing, In *Encyclopaedia of Agricultural and Food Engineering*, D. R. Heldman (e.d.). Marcel Dekker, Inc., New York, 987–993.
 2. Feng, H., and Tang, J. 2003. Heat and mass transfer modelling in microwave and spouted bed combined drying of particulate food products, in *Transport Phenomena in Food Processing*, (eds.) Jorge Welti-Chanes, Jorge F. Velez-Ruiz, Gustavo V. Barbosa-Canovas, CRC Press, New York, 521-538.
 1. Tang, J., Feng, H., and Lau, M. 2002. Microwave heating in food processing, in *Advances in Bioprocessing Engineering*, (eds.) Young, X., Tang, J., World Scientific Publisher, New Jersey, 1-43.

PATENTS

1. Tang, J., Liu, F., Pathak, S., Eves, G. 2006. Apparatus and method for heating subjects with microwaves, **US Patent No. 7,119,313 B2** (filed 09-04, Application Number 10/937,547, revised Nov. 2005, approved 10/10/2006).
2. Tang, J., Liu, F. 2015, Method for recording temperature profiles in food packages during microwave heating using a metallic data logger. **US Patent No. 8,981,270 B2** (filed 2011, application Number 20120241443, approved March 17, 2015).
3. Tang, J., Liu F., 2017, Microwave Sterilization or Pasteurization-Systems, **US Patent No. 9,642,385 B2** (filed on Oct. 14, 2015, Accepted on May 9, 2017. filed in EU and 11 countries, including China, Japan, Australia).
4. Tang, J., Liu F., 2018, Microwave Sterilization or Pasteurization-Methods, **US Patent Application Number 14/883,153** (filed on Oct. 14, 2015).
5. Tang, J., Liu, F. Microwave Sterilization or Pasteurization Transport Carriers and System (**US Patent, filed on July 18, 2016**, Application Number 15212655, WSU OC 1687).
6. Tang, J., Liu, F. Microwave Sterilization or Pasteurization Transport Carrier (**US Patent, filed on March 1, 2018**, Application Number 15907722/provisional filing application number 624467018, WSU Ref:12770079AA/TA, WSU OC1783).
7. Tang, J., Wang J., Liu, F. A chemical marker system for heating pattern determination of microwave assisted pasteurization processes (**US Patent, provisional filing made on July 25, 2015**).
8. Tang, J. Luan, D., Liu, F. New field domestic microwave oven (**US Patent, provisional filing made on July 9, 2015**).
9. Barrios, JDJ., Tang, J., Swanson, B. 2006 Extrusion-cooking of high fiber products based on legume flours. Official application filed through USDA ARS Western Regional Center at Albany, CA, Dec. 16, 2006, serial No. 11/641,318. Publication US-2008-0145483-A1.
10. Barrios, JDJ., Patil, RT, Tang, J., Swanson, B. 2006. Method for the production of functional

food type products as fortified potato based French fries developed by conventional, hypobaric and supercritical fluid extraction. Patent Disclosure to USDA ARS (No. 0033,06).

OVER 300 CONFERENCE PRESENTATIONS (not listed here)

Graduate Students in My Laboratory (all students received full support either from my grants or with external scholarships identified below)

Student Name	Research Topic, and Awards	Degree Program	Starting – or Graduation Date (- Expected)	Position after graduation
52. Yucen Xie	Microwave pasteurization Supported by CSC	PhD.	1/2018	
53. Sumeyye Inanoglu	Microwave processing	PhD.	8/2017	
51. Gezahegn Yonas	Microwave pasteurization	PhD.	8/2017	
50. Jiewen Guan	Low Moisture Food Safety jointly with USDA ARS	PhD.	8/2017	
49. Qu Zhi	Microwave Processing Supported by CSC	PhD.	8/2016-	
48. Yuqiao Jin	Low Moisture Foods Safety PhD., 8/2016-	PhD.	8/2016-	
47. Yoon Ki Jong	Microwave Processing	PhD.	8/2016-	
46. Marco Esteban Perez Reyes	Food Engineering <i>Mexican Scholarships (CONACYT)</i>	Ph.D.	8/2015-	
45. Ren Yang	Food Engineering	Ph.D.	8/2015-	
44. Jaza Shammari	<i>Saudi Arabia Government</i> (3+3yr, with travel for one meeting per year)	PhD.	1/2015-	
43. Jie Xu	Food safety <i>CSC Scholarship</i> <i>IFTPS Paper Competition, First Place, 2017</i> <i>Intern at McCormick</i>	PhD.	8/2014-	
42. Shuxian Liu	Low moisture food safety <i>CSC Scholarship</i> <i>Received 2nd Place in 2017 AACCI Best Student Research Paper Competition</i> <i>2017 Feed for Tomorrow Scholarship from IFT</i> <i>2017 IAFP Travel Award</i>	Ph.D.	8/2013-10/2017	Sichuan University, Chengdu, China
41. Ravi Kiran Tapapaneni	RF processing	Ph.D.	2013-12/2017	Taylorfarms, CA, Research Scientist
40. Deepali Jain	Microwave processing	Ph.D.	2013- 12/2017	Senior Scientist, Chew Innovation, Boston, MA
39. Jungang Wang	Starch diffusion in dough during thermal processing <i>2012 CSC Scholarship</i> <i>2013 IAFP Travel Award</i> <i>2013 NASA Summer Fellow</i>	M.S. Ph.D.	1/2012- 5/2013	2014-1/2018/2013 Senior Process Engineer, Campbell Soup

38. Hongchao Zhang	Food Packaging Jointly with Dr. Sablani	Ph.D.	1/2013- 11/2016		Post-doctorate fellow University of Maryland
37. Ellen Bornhorst	Microwave heating during thermal processing <i>Food Safety and Inspection Service 2013 IFT Puget Sound Travel Award 2013 IFT Puget Sound Travel Award 2013 IFT Puget Sound Travel Award 2015 NASA Intern</i>	M.S.	1/2012- 5/2013	7/2013- 12/2016	1/2013- 5/2013 Research Associate/Project Manager, USDA ARS
36. Rossana Villa	RF Processing <i>Mexican Scholarship (CONACYT)</i>	Ph.D.		1/2012-11/2015	Post-Doctorate fellow, Mexico
35. Ellen Bornhorst	Salt diffusion in food during thermal processing <i>2013 IFT Puget Sound Travel Award 2013 NASA Summer Fellow</i>	M.S.		1/2012-5/2013	WSU PhD Student
34. Rajat Tyagi	MW Engineering, modeling, energy efficiency, engineering scaling-up <i>2012 IFT Puget Sound Travel Award</i>	Ph.D.		(08/2013)	Withdraw
33. Wenjia Zhang	Chemical marker for MW pasteurization <i>China Scholarship Council Support 2012 IFT Puget Sound Travel Award 2012 IMPI Paper Poster Competition 1st Place 2013 IFT Puget Sound Outstanding Student Award 2013 IFT Feeding Tomorrow Graduate Student Scholarship 2013 WSU Biological Systems Engineering Graduate Studies Achievement Award</i>	Ph.D.		05/2015	Research Scientist, Coca Cola, USA
32. Yage Shi	Food kinetics in short thermal processing, jointly with Northwest University of Agriculture and Forestry, <i>China Scholarship Council support</i>	Ph.D.		(01/2013)	Assistant Professor, Northwest University of Agriculture and Forest, China
31. Donglei Luan	Microwave heating/Computer Simulation <i>China Scholarship Council support 2013 IFT Puget Sound Outstanding Student Award</i>	Ph.D.		8/2014	Associate Professor, Shanghai Ocean University, Shanghai, China
30. Jiao Yang	MW sterilization energy efficiency <i>China Scholarship Council Support 2012 IFT Puget Sound Outstanding Student Award 2013 IFT Puget Sound Travel Award</i>	Ph.D.		07/2014	Associate Professor, Shanghai Ocean University, Shanghai, China (yjiao@shou.edu.cn)
29. Jing Peng	Microwave pasteurization-quality kinetics <i>China Scholarship Council (CSC) Support 2013 IFT Puget Sound Travel Award</i>	Ph.D.		12/2013	Assistant Professor, Nanjing Agricultural University, China
28. Shunshan Jiao	RF heating/computer simulation/system design, <i>China Scholarship Council support</i>	Ph.D.		12/2011	Associate Professor Shanghai JiaoTong University
27. Ofero A Caparino	Drying technologies for tropic fruits <i>scholarships from Ford Foundation 2007-2010 2004 IFT Puget Sound Travel Award Excellence in Research awarded by R Wiley Research, WSU GPSA, 2012</i>	Ph.D.		05/2012	Division Chief Biosystems Engineering Philippine Center for Post- Harvest Development and Mechanization, CLSU Compound, Science City of Munoz, Nueva Ecija 3120 Philippines Tel. +63444560213 Email. Ofero.caparino@email.wsu.edu Ofero1058@yahoo.com

26. Fermin Resurreccion	Microwave sterilization <i>2011 IMPI Poster Competition 1st Place Award</i> <i>2008 IFT Puget Sound Travel Award</i> <i>2012 IFT Puget Sound Travel Award</i>	Ph.D.	12/2011	Senior Microwave Engineer , Graphic Packaging, R&D Center, Denver, CO
25. Bandar Alfaifi	RF/MW heating for pest and m/o control <i>scholarships from Saudi Arabia Government</i>	Ph.D.	05/2013	Vice Dean of Student Affairs, King Saud University
24. Yanhong Liu	Joint with China Agric. Univ. <i>scholarships from Chinese Government</i>	Ph.D.	04/2009	Associate Professor , China Agricultural University, Beijing, China
23. Bandar Alnahdi	Dielectric properties of solid powders <i>Supported by scholarships from Saudi Arabia Government</i>	M.S.	05/2011	Faculty, King Saud University, Kingdom of Saudi Arabia
22. Balunkeswar Nayak	Extrusion of potato and legumes <i>Excellence in Agriculture Scholarship for 2007-08, 08-09, 09-10 from WA Potato Commission, Second Prize in Wiley graduate research competition for 2008 from WSU Graduate and Professional Student's Association in the category of Engineering and Physical Sciences, 2010 IFT Feed for Tomorrow Scholarship</i>	Ph.D.	01/2011	Assistant Professor , University of Maine
21. Ho Ki Lee	Coupled heat and EM simulation jointly with Professor Ben Li, MME	M.S.	03/2005	
20. Gopal Tiwari	Postharvest pest and m/o control with RF <i>2009 IFT Food Engineering Paper 1st place award</i>	Ph.D.	04/2010	Post-doc., UC Davis
19. Wendy Lu	Thermal characteristics of PA 3679 spores, <i>Jointly with Dr. Kang, FSHN</i>	M.S.	04/2006	Manager of food microbiology, Michelson Laboratories, LA
18. Yu Wang	MW Fish processing	M.S.	12/2006	Q/A manager, Eagle Beverage and Accessory Products LLC, dba Calson Industries, Seattle
17. Fanbin Kong	Microwave processing of salmon	Ph.D.	01/2007	Associate Professor , University of Georgia
16. K. Khana Mokwena Nthoiwa	Novel food packaging for MW processes <i>scholarships from Botswana Government</i>	Ph.D.	04/2010	Research Scientist in Thermal Processing National Food Technology Center, Kanye, Botswana <i>Cellphone: +267-74178837</i> <i>alternate e-mail: kknmet@rit.edu</i>

15. Hao Chen	3-D Microwave heating simulation	Ph.D.	02/2008	Software Engineer , Microsoft, Redmond, WA
14. Ali Ashami	Dielectric Properties of Protein and Carbohydrate Solutions, <i>USDA National Needs Fellow</i>	Ph.D.	03/2007	Assistant Professor , King Saud University, Kingdom of Saudi Arabia
13. Ram Bhuwan Pandit	Microwave processing, computer vision for heating pattern	Ph.D.	12/2006	Research Engineer , Nestle
11. Sohanlal Birla	Quarantine treatments for fruits	Ph.D.	12/2006	Principal scientist , ConAgra, Omaha
10. Jian Wang	RF sterilization	Ph.D.	05/2007	Wal-Mart IT Center, LA
9. Ting Sun	Process for asparagus products <i>2004 IFT Puget Sound Travel Award</i> jointly with Dr. Powers	Ph.D.	2005	Post Doc. University of Wisconsin
8. Kanchalee Luechaparganap	RF sterilization, <i>2004 IFT Puget Sound Scholastic Award, 2003 Marvin Byer Scholarship Award from R&DA, a nationwide for R&D activities related to military rations and packaging</i>	Ph.D.	2005	Principle Scientist , PepsiCo, Asia Pacific Region, Bangkok
7. Dongsheng Guan	Microwave sterilization <i>2000 IFT Puget Sound Scholastic Award</i> <i>2001 R&DA Student Achievement Award</i>	Ph.D.	2003	Director , Food Safety & Quality Assurance Bumble Bee Seafoods 13006 Arctic Circle · Santa Fe Springs · CA 90670 Mobile: 001-562-322-4660 (Preferred) Fax: 001-858-694-9523 Office: 001-562-207-1307 Email: don.guan@bumblebee.com
6. Yifen Wang	RF sterilization, <i>1999 IFT Puget Sound Scholastic Award, 2001 IFTPS paper Competition Award (1st place)</i> <i>2002 IFT Puget Sound Travel Award</i>	Ph.D.	2002	Professor Auburn University, Auburn, AB
5. Timothy Wig	System Simulation for Microwave and RF Processes	Ph.D.	2001	Research Engineer, High Speed Circuits, MA, a subsidiary of Intel.
4. Hao Feng	Microwave drying of particulate foods in a spouted bed	Ph.D.	1999	Professor , University of Illinois, Urbana, IL
3. Minghwei Lau	Microwave pasteurization and sterilization of food products	Ph.D.	2000	Principal Researcher, Technical Center of Kraft Foods, IL

2. Julian Ikediala	Quarantine treatment for fruits using radio frequency and microwave energy <i>1999 WSU Science & Engineering Graduate Student Research Paper Competition Award (2nd Place).</i> <i>2000 ASAE Superior Paper Award</i>	Ph.D.	1997-00	Research Engineer, Technical Center, McCain Foods, NB, Canada
1. Brendan Abonyi	Evaluation of refractance window drying method for fruits and vegetables	M.S.	1998-00	Plant engineer, J.R. Simplot Company, ID

VISING PROFESSORS/STUDENTS/POST DOCTRATE FELLOWS

Name	Research Topic	Duration	Ph.D. Degree	Current Position
49. Fei Shen	RF Processing	1/2018-	Zhejiang University	Associate Professor, Nanjing University of Commerce
48. Thammanoonq Auksornsri	Microwave processing	7/16-12/16	Kasetsart University	PhD. Student, Kasetsart University, Thailand
48. Xie Long	Food Processing	11/15-11/16	China Agriculture University	PhD. Student, China Agriculture University, Beijing China.
47. Zhihui Zhu	Food Processing	5/15-5/16	Wuhan University	Associate Professor, Central China University of Agriculture, Wuhan, China
46. Li Li	Food Packaging	11/14-11/15	Shanghai University of Technology	Associate Professor, Shanghai Ocean University, Shanghai, China
45. Xue Dong Yao	RF Drying	9/14-9/15	China Agricultural University	Associate Professor, Shihezi University, Xinjiang, China
44. Donglei Luan	Microwave Simulation	9/14-9/15	WSU	Associate Professor, Shanghai Ocean University
43. Jiao Yang	RF Simulation	8/14-8/15	WSU	Associate Professor, Shanghai Ocean University
42. Qingping Zhong,	Low moisture food safety	8/14-8/15	South China Agricultural University	Associate Professor, South China Agricultural University
41. Roopesh Syamaladevi	Pathogen control in low moisture food	5/2013-	WSU	Assistant Professor, University of Alberta, Canada
40. Huojie Shi	RF processing	5/2013-8/2014		PhD. Student, China Agriculture University
39. Shunshan Jiao	RF Processing	8/2012-8/2013	WSU	Assistant Professor, Shanghai JiaoTong University
38. Yuqin Huang	Food Quality	1/2013-	WSU	Professor, Shanghai University of Ocean
37. Chunfan Song	Thermal Processing	8/2012-7/2013	China Agricultural University	Associate Professor, Jianan University, China
36. Yage Shi	Thermal Processing	1/2009-1/2012		Northwest A&F University, Yangling, Shaanxi, China.

35. Sudhir Uprit	MW pasteurization Fulbright Scholar	8/2010- 4/2011	IIT, Kharagpur, India	Prof, Chair Dept. Dairy Technology College of Dairy Technology, Raipur, India
34. Haihua Cong	MW processing of seafoods, <i>visiting student</i>	1/2010- 9/2010 11/2011-		China Ocean University, Qingdao, China
33. Baher M. A. Amer	RF drying, Fulbright Scholar	8/09- 2/2010	Humboldt University Berlin, Germany	Assistant Professor, Cairo University Food Science Department, Yangtze University,
32. Mengxiang Gao,	RF heating <i>Sabbatical leave</i>	02-2010 06/09-	JiangXu University, China	Associate Professor, Department of Food Engineering, College Life Science, Yangtze University, Jingzhou, Hubei, China, 434025
31. Rossana Villa	RF heating <i>visiting student</i>	01/09- 5/2010		University of America, Mexico
30. Su-Der Chen	RF heating <i>Sabbatical leave</i>	08/08- 12/08	Michigan State University	Professor, Department of Food Science National Ilan University, Taiwan
29. Yunyang Wang	RF drying <i>Sabbatical leave</i>	01/09- 01/10	NW A&F University, China	Associate Professor, Department Chair, Food Science and Engineering College Northwest A&F University, Yangling, Shaanxi, China
28. Ram Pandit	Thermal processing- <i>Post Doc</i>	05/08- 09/08	WSU	Frito-Lay, Research Engineer
27. Du Kang	Food Processing <i>Sabbatical leave</i>	05/07- 12/08	Lurven University, Belgium	Professor, Head of Food Science Department, Nanjing Agricultural University, Nanjing, China
26. Zeng Ruan	Dairy processing <i>Sabbatical leave</i>	8/07-12/07	South China University of Science and Tech.	Associate Professor , South China University of Science and Tech., QuangZhou, China
25. Yulin Ji	Extrusion – <i>Post Doc</i>	5/07-6/08	Iowa State University	Pepsi-Cole R&D Center, USA
24. Maria Elena Sosa Morales	Mango treatment with RF - <i>Sabbatical leave</i>	5/07-8/07	Instituto Tecnologico de Veracruz of Mexico	Assistant Professor Department of Food Engineering University of America, Mexico
23. Wenchuan Guao	Dielectric properties <i>Sabbatical leave</i>	1/07-5/07	Northwest University of Agricultural and Forestry	Professor, Associate Dean of Agricultural Engineering Northwest University of Agricultural and Forestry, China
22. Jae Hyung Mah	Microbial validation of thermal processes – <i>Post Doc.</i>	08/06- 12/2010	National Korea University	Associate Professor Department of Food and Biotechnology, Korea University 518B College of Science and Technology, Sejong Campus, Jochiwon-eup Yeongi-gun, Chungnam 339-700, South Korea

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21. Lahan Sinha	Extrusion – <i>Post Doc.</i>	06-07	IIT, Kharagpur, India	Senior Scientist, Soybean Processing and Utilization Centre, Central Institute of Agricultural Engineering, Bhopal, India
20. Sohanlal Birla	Mash room soups- <i>Post Doc</i>	06-07	Ph.D, WSU	Principal Research Scientist Breakthrough Science/Innovation/RQI Six ConAgra Drive, Omaha, NE 68102 Phone : 402-240-6184 Cell : 402-639-4454 Sohan.Birla@conagrafoods.com
19. Zhang Min	Drying Technologies- <i>Sabbatical leave</i>	2005 (6 months)	China Agri. College	Professor of Food Engineering at South Yangtze University, China
18. Luigi Ragni	Dielectric Properties of Egg in storage - <i>Sabbatical leave</i>	2005 (3 months)	University of Bologna	Associate Professor, University of Bologna, Italy
17. Hyun-Jung Chung	Microbial validation of RF and MW processes- <i>Post Doc.</i>	2004-06	Ohio State University, Columbus, OH	Assistant Professor, Inha University, South Korea
16. Ramabhau Patil	Lentil extrusion – <i>Post Doc.</i>	2003-05	University of Saskatchewan, Saskatoon, Canada	Vice President of Indian Society of Agriculture Engineering, Director, Central Institute of Agricultural Engineering, Nabi Bagh, India
15. Zhongwei Tang	RF & MW process design – <i>Post Doc.</i>	2003-	University of Manitoba, Winnipeg, Canada	
14. Xinming Yin	Insect mortality – <i>Post Doc.</i>	2002-04	Southwest China Agricultural University	Professor, Dean of Graduate Studies, Henan Agricultural University, China
13. Yifen Wang	RF heating – <i>Post Doc.</i>	2003-04	WSU	Associate Professor, Auburn University, AB
12. T.V. Chan	RF Simulation – <i>Post Doc.</i>	2003-	University of Stellenbosch, South Africa	University of Toronto, Canada, Lab Director in EE
11. Slava Komarov	Microwave Simulation – <i>Post Doc.</i>	2002-03	Saratov State University, Russia	Professor and Chair of Radio Engineering, Saratov State University, Russia
10. Yiqun Huang	Food gel rheology – <i>Post Doc,</i>	2002-04	WSU	Professor, Shanghai Ocean University
9. Minghau Cheng	Extrusion of legume products – <i>Post Doc.</i>	2001-03	China Agriculture University	Cargill, MN

8. Frank Liu	Microwave sterilization – <i>Post Doc.</i>	2001-	Institute of Danian Sciences and Technology, Danian, China	
7. Caleb Nindo	Advanced drying technologies – <i>Post Doc.</i>	2001-06	Iwate University, Japan	Associate Professor, Director, Department of Food Science University of Maryland, Eastern Shore.
6. Surya Pathak	Computer simulation of microwave and RF heating – <i>Post Doc.</i>	2001-03	Institute of Technology of Banaras Hindu University, Varanasi, India	03- Assistant Professor, Institute of Plasma Research, BHAT, India
5. Shojin Wang	RF control of insect pests in fruits and nuts – <i>Post Doc.</i>	2000-	Department of Physics, Gembloux Agricultural University, Belgium	
4. Julian Ikediala	Quarantine treatment for fruits – <i>Post Doc.</i>	2000-01	WSU	Research Engineer, Technical Center, McCain Foods, NB, Canada
3. RunSheng, Mao	Food gel rheology – <i>Post Doc.</i>	1997-00	University of Salford, UK	Research Chemist Indium Corporation of America Clinton, NY 13323
2. Hao Feng	Dehydration using microwaves and inert gases – <i>Post Doc.</i>	1999-00	WSU	Associate Prof. Food Eng. University of Illinois, Urbana, IL
1. Yui Dain Sheng	Dehydration – <i>sabbatical leave</i>	1997-08	Shangshi Agriculture University	Professor, Shangshi Agr. University, China

Google Scholar Juming Tang, 1- 10, 2018

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