

Publications

- [1] Zhou, R., Wang, C., Huang, Y., **Huang, K.**, Wang, Y., Xu, W., Xie, L., Ying, Y. Label-free terahertz microfluidic biosensor for sensitive DNA detection using graphene-metasurface hybrid structures. *Biosensors and Bioelectronics*, 2021, 188, 113336.
- [2] Tao, M., Chen, J., **Huang, K.** Bio-based Antimicrobial Delivery Systems for Improving Microbial Safety and Quality of Raw or Minimally Processed Foods. *Current Opinion in Food Science*, 2021, 41, 189-200.
- [3] Yi, J., **Huang, K.**, Ma, Y., Sun, G., Young, G.M., Nitin, N. Antimicrobial N-Halamine incorporated Poly(Vinyl alcohol-co-ethylene) films for reducing cross-contamination of fresh produce. *Food Control*, 2021, 124, 107880.
- [4] Dou, F., **Huang, K.**, Nitin, N. Targeted photodynamic treatment of bacterial biofilms using curcumin encapsulated in cells and cell wall particles. *ACS Applied Bio Materials*, 2021, 4, 514-522.
- [5] Yu, Z., Jung, D., Park, S., Hu, Y., **Huang, K.**, Rasco, B.A., Wang, S., Ronholm, J., Lu, X., Chen, J. Smart traceability for food safety. *Critical Reviews in Food Science and Nutrition*, 2020, 1-12.
- [6] **Huang, K.**, Nitin, N. Food grade microscale dispersion enhances UV stability and antimicrobial activity of a model bacteriophage (T7) for reducing bacterial contamination (*Escherichia coli*) on the plant surface. *Journal of Agricultural and Food Chemistry*, 2020, 68 (39), 10920-10927.
- [7] **Huang, K.**, Tian, Y., Tan, J., Salvi, D., Karwe, M., Nitin, N. Role of contaminated organic particles in cross-contamination of fresh produce during washing and sanitation. *Postharvest Biology and Technology*, 2020, 168, 111283.
- [8] Yi, J., **Huang, K.**, Young, G. M., Nitin, N. Quantitative analysis and influences of contact dynamics on bacterial cross-contamination from contaminated fresh produce. *Journal of Food Engineering*, 2020, 270, 109771.
- [9] **Huang, K.**, Dou, F., Nitin, N. Bio-based sanitizer delivery systems for improved sanitation of bacterial and fungal biofilms. *ACS Applied Materials and Interfaces*, 2019, 11(19), 17204-17214.
- [10] Ma, Y., Li, J., Si, Y., **Huang, K.**, Nitin, N., Sun, G. Rechargeable Antibacterial N-Halamine Films with Antifouling Function for Food Packaging Applications. *ACS applied materials & interfaces*, 11(19), 17814-17822.
- [11] **Huang, K.**, Nitin, N. Edible bacteriophage based antimicrobial coating on fish feed for enhanced treatment of bacterial infections in aquaculture industry. *Aquaculture*, 2019, 502: 18-25.
- [12] **Huang, K.**, Nitin, N. Antimicrobial particle based novel sanitizer for enhanced decontamination of fresh produce. *Applied and Environmental Microbiology*, 2019, 10.1128/AEM.02599-18.
- [13] **Huang, K.**, Wrenn, S., Tikekar, R., Nitin, N. Efficacy of decontamination and a reduced risk of cross-contamination during ultrasound-assisted washing of fresh produce. *Journal of Food Engineering*, 2018, 224: 95–104.
- [14] **Huang, K.**, Tian, Y., Salvi, D., Karwe, M., Nitin, N. Influence of exposure time, shear stress, and surfactants on detachment of *Escherichia coli* O157:H7 from fresh lettuce leaf surfaces during washing process. *Food and Bioprocess Technology*, 2018, 11: 621–633.
- [15] Cossu, A., **Huang, K.**, Cossu, M., Tikekar, R.V., Nitin, N. Fog, phenolic acids and UV-A light irradiation: A new antimicrobial treatment for decontamination of fresh produce. *Food Microbiology*, 2018, 76: 204-208.

- [16] Si, Y., Zhang, Z., Wu, W., Fu, Q., **Huang, K.**, Nitin, N., Ding, B., Sun, G. Daylight-driven rechargeable antibacterial and antiviral nanofibrous membranes for bioprotective applications. *Science Advances*, 2018, 4: eaar5931.
- [17] **Huang, K.**, Nitin, N. Enhanced removal of *Escherichia coli* O157: H7 and *Listeria innocua* from fresh lettuce leaves using surfactants during simulated washing. *Food Control*, 2017, 79: 207–217.
- [18] Guo, J., Li, Z., **Huang, K.**, Li, Y., Wang, J. Morphology analysis of *Escherichia coli* treated with non-thermal plasma. *Journal of Applied Microbiology*, 2017, 122(1): 87–96.
- [19] Guo, J., **Huang, K.**, Wang, X., Lyu, C., Yang, N., Li, Y., Wang, J. Inactivation of yeast on grapes by plasma-activated water and its effects on quality attributes. *Journal of Food Protection*, 2017, 80(2): 225–230.
- [20] Chen, X., Yu, L., Jiang, T., Tian, H., **Huang, K.***, Wang, J.* A high-voltage solid-state switch based on series connection of IGBTs for PEF applications. *IEEE Transactions on Plasma Science*, 2017, 45(8): 2328–2334.
- [21] **Huang, K.**, Chen, J., Nugen, S. R., Goddard, J. M. Hybrid antifouling and antimicrobial coatings prepared by electroless co-deposition of fluoropolymer and cationic silica nanoparticles on stainless steel: efficacy against *Listeria monocytogenes*. *ACS Applied Materials and Interfaces*, 2016, 8: 15926–15936.
- [22] **Huang, K.**, McLandsborough, L. A., Goddard, J. M. Adhesion and removal kinetics of *Bacillus cereus* biofilms on Ni-PTFE modified stainless steel. *Biofouling*, 2016, 32: 523–533.
- [23] Yang, N.¹, **Huang, K.**¹, Lyu, C., Wang, J. Pulsed electric field technology in the manufacturing processes of wine, beer, and rice wine: A review. *Food Control*, 2016, 61: 28–38.
- [24] Lyu, C.¹, **Huang, K.**¹, Yang, N., Wang, H., Wang, J. Combination of thermosonication and pulsed electric fields treatments for controlling *Saccharomyces cerevisiae*. *Food and Bioprocess Technology*, 2016, 9: 1854–1864.
- [25] Jindal, S., Anand, S., **Huang, K.**, Goddard, J., Metzger, L., Amamcharla, J. Evaluation of modified stainless steel surfaces targeted to reduce biofilm formation by common milk sporeformers. *Journal of Dairy Science*, 2016, 99: 9502–9513.
- [26] **Huang, K.**, Goddard, J. M. Stability of nonfouling electroless nickel-polytetrafluoroethylene coatings after exposure to commercial dairy equipment sanitizers. *Journal of Dairy Science*, 2015, 98: 1–12.
- [27] **Huang, K.**, Goddard, J. M. Influence of fluid milk product composition on fouling and cleaning of Ni-PTFE modified stainless steel heat exchanger surfaces. *Journal of Food Engineering*, 2015, 158: 22–29.
- [28] Guo, J., **Huang, K.**, Wang, J. Bactericidal effect of various non-thermal plasma agents and the influence of experimental conditions in microbial inactivation: A review. *Food Control*, 2015, 50: 482–490.
- [29] Chen, J., Li, Y., **Huang, K.**, Wang, P., He, L., Carter, K. R., Nugen, S. R. Nanoimprinted patterned pillar substrates for surface-enhanced Raman scattering applications. *ACS Applied Materials and Interfaces*, 2015, 7: 22106–22113.
- [30] **Huang, K.**, Jiang, T., Wang, W., Gai, L., Wang, J. A comparison of pulsed electric field resistance for microorganisms with different biological factors via numerical simulation. *Food and Bioprocess Technology*, 2014, 7: 1981–1995.

- [31] **Huang, K.**, Yu, L., Wang, W., Gai, L., Wang, J. Comparing the pulsed electric field resistance of the microorganisms in grape juice: application of the Weibull model. *Food Control*, 2014, 35: 241–251.
- [32] **Huang, K.**, Yu, L., Liu, D., Gai, L., Wang, J. Modeling of yeast inactivation of PEF-treated Chinese rice wine: effects of electric field intensity, treatment time and initial temperature. *Food Research International*, 2013, 54: 456–467.
- [33] **Huang, K.**, Yu, L., Gai, L., Wang, J. Coupled simulations in co-linear and coaxial continuous pulsed electric fields treatment chambers. *Transactions of the ASABE*, 2013, 56: 1473–1484.
- [34] **Huang, K.**, Tian, H., Gai, L., Wang, J. A review of kinetic models for inactivating microorganisms and enzymes by pulsed electric field processing. *Journal of Food Engineering*, 2012, 111: 191–207.
- [35] **Huang, K.**, Wang, J. Designs of pulsed electric fields treatment chambers for liquid foods pasteurization process: A review. *Journal of Food Engineering*, 2009, 95: 227–239.
- [36] **Huang, K.**, Wang, H., Xu, H., Wang, J., Ying, Y. NIR spectroscopy based on least square support vector machines for quality prediction of tomato juice. *Spectroscopy and Spectral Analysis*, 2009, 29: 931–934.
- [37] Yu, L., **Huang, K.**, Wang, H., Gai, L., Wang, J. Study of key technologies on series connection of IGBTs. *High Power Laser and Particle Beams*, 2013, 25: 1315–1319.
- [38] Sun, T., **Huang, K.**, Xu, H., Ying, Y. Research advances in nondestructive determination of internal quality in watermelon/melon: A review. *Journal of Food Engineering*, 2010, 100: 569–577.
- [39] Xu, H., Wang, H., **Huang, K.**, Ying, Y., Yang, C., Qian, H., Hu, J. Comparison of PLS and SMLR for nondestructive determination of sugar content in honey peach using NIRS. *Spectroscopy and Spectral Analysis*, 2008, 28: 2523–2526.

Presentations

- [1] “Encapsulation of Mānuka Essential Oil in Yeast-Derived Microcarriers for Enhanced Thermal Stability and Antimicrobial activity”. New Zealand Institute of Food Science and Technology Annual Conference, Palmerston North, New Zealand, July 2021.
- [2] “Nature-Inspired Microcarriers for Enhanced Antimicrobial Delivery”. New Zealand Institute of Food Science and Technology Annual Conference, Palmerston North, New Zealand, July 2021.
- [3] “Novel Bio-based Sanitizer for Decontamination of Food Contact Surfaces”. *Digestion and Health International Conference*, Rotorua, New Zealand, October 2019.
- [4] “Novel Bio-based Sanitizer for Rapid Sanitation of Fresh Produce and Food Contact Surfaces”. *International Association for Food Protection Annual Meeting*, Louisville, KY, USA, July 2019.
- [5] “A Novel Antimicrobial Film for Preventing Cross-contamination of Fresh Produce”. International Association for Food Protection Annual meeting, Louisville, KY, USA, July 2019.
- [6] “Development and Use of a Simulation Module in Education and Its Potential for Extension”. *IFT Annual Meeting*, New Orleans, LA, USA, June 2019.
- [7] “Novel Bio-based Sanitizer for Rapid Sanitation of Fresh Produce and Food Contact Surfaces”. *Conference of Food Engineering*, Minneapolis, Minnesota, USA, September 2018.

- [8] “Bacteriophage Based Nanoscale dispersion as Biocontrol Agents for Agricultural Practices”. *Conference of Food Engineering*, Minneapolis, Minnesota, USA, September 2018.
- [9] “Rapid Detection of Pathogenic Bacteria using Bacteriophage-based Strategies”. *USDA-NIFA Food Processing and Manufacturing Technology Grantees Conference*, Natick, Massachusetts, USA, August 2018.
- [10] “Novel Bio-based Sanitizer for Rapid Sanitation of Fresh Produce and Food Contact Surfaces”. *USDA-NIFA Food Processing and Manufacturing Technology Grantees Conference*, Natick, Massachusetts, USA, August 2018.
- [11] “Enhanced phage stability and delivery in aquaculture feed and agriculture”. *CARA Review Meeting*, Santa Barbara, California, USA, April 2018.
- [12] “Cross-contamination of pathogens via leaf-to-leaf contact”. *International Association for Food Protection Annual Meeting*, Tampa, Florida, USA, July 2017.
- [13] “Enhanced removal of pathogens from fresh produce using surfactants and sanitizers”. *International Association for Food Protection Annual Meeting*, Tampa, Florida, USA, July 2017.
- [14] “Coating Phages on Feed and Food for Enhanced Antimicrobial Activity”. *CARA Review Meeting*, Berkeley, California, USA, April 2017.
- [15] “Numerical simulation study of a continuous coaxial PEF treatment chamber”. *American Society of Agricultural and Biological Engineers Annual International Meeting*, Louisville, Kentucky, USA, August 2011.
- [16] “Pulsed electric field processing technology for improving microbial safety of Chinese rice wine”. *International Conference on Non-thermal Processing Technologies*, Beijing, China, October 2011.
- [17] “Mathematical modeling software for electromagnetic simulation”. *Chinese Society of Agricultural Engineering Annual Meeting*, Beijing, China, October 2010.
- [18] “Pulsed electric field treatment chambers for liquid foods pasteurization process”. *International Conference on Non-thermal Processing Technologies*, Beijing, China, October 2009.