

## BIBLIOGRAPHY

- Adams, D. O., & Yang, S. F. (1979). Ethylene biosynthesis: identification of 1-aminocyclopropane-1-carboxylic acid as an intermediate in the conversion of methionine to ethylene. *Proceedings of the National Academy of Sciences of the United States of America*, 76, 170–174.
- Ahmad, S., Thompson, A. K., Asi, A. A., Khan, M., Chatha, G. A., & Shahid, M. A. (2001). Effect of reduced O<sub>2</sub> and increased CO<sub>2</sub> (controlled atmosphere storage) on the ripening and quality of ethylene treated banana fruit. *International Journal of Agricultural and Biology*, 3(4), 486–490.
- Alexander, L., & Grierson, D. (2002). Ethylene biosynthesis and action in tomato: a model for climacteric fruit ripening. *Journal of Experimental Botany*, 53(377), 2039–2055.
- Alver, B. E., & Sakızcı, M. (2012). Ethylene adsorption on acid-treated clay minerals. *Adsorption Science & Technology*, 30(3), 265–273.
- Anwar, R., & Malik, A. U. (2007). Hot water treatment affects ripening quality and storage life of mango (*Mangifera indica* L.). *Pakistan Journal of Agricultural Sciences*, 44(2), 304–311.
- Appendini, P., & Hotchkiss, J. H. (2002). Review of antimicrobial food packaging. *Innovative Food Science & Emerging Technologies*, 3(2), 113–126.
- Arauz, L. F. (2000). Mango anthracnose: Economic impact and current options for integrated management. *Plant Disease*, 84, 600–611.
- Arauz, L. F., & González-Lobo, M. (1986). Fuentes de inóculo de algunas enfermedades de poscosecha del mango. *Agronomía costarricense*, 10(1/2), 217–220.
- ASTM D4754-98. Standard test method for two-sided liquid extraction of plastic materials using FDA migration cell. West Conshohocken, PA: ASTM International.

- ASTM D644-99. Standard test method for moisture content of paper and paperboard by oven drying. West Conshohocken, PA: ASTM International.
- ASTM D882-12. Standard test method for tensile properties of thin plastic sheeting. West Conshohocken, PA: ASTM International.
- ASTM E96/E96M-16. Standard test methods for water vapor transmission of materials. West Conshohocken, PA: ASTM International.
- Aziz, N. H., Farag, S. E., Mousa, L. A. A., & Abo-Zaid, M. A. (1998). Comparative antibacterial and antifungal effects of some phenolic compounds. *Microbios*, *93*, 43–54.
- Bahl, A., Bahl, B. S., & Tuli, G. D. (1977). *Essentials of physical chemistry*. Ram Nagar, New Delhi: S. Chand & Company Ltd.
- Bailén, G., Guillén, F., Castillo, S., Zapata, P. J., Serrano, M., Valero, D., & Martínez-Romero, D. (2007). Use of a palladium catalyst to improve the capacity of activated carbon to absorb ethylene, and its effect on tomato ripening. *Spanish Journal of Agricultural Research*, *5*(4), 579–586.
- Balamuralidhara, V., Pramodkumar, T. M., Srujana, N., Venkatesh, M. P., Vishal G. N., Krishna, K. L., & Gangadharappa, H. V. (2011). pH sensitive drug delivery systems: A review”. *American Journal of Drug Discovery and Development*, *1*(1), 24–48.
- Baldwin, E. A., Burns, J. K., Kazokas, W., Brecht, J. K., Hagenmaier, R. D., Bender, R. J., & Pesis, E. (1999). Effect of two edible coatings with different permeability characteristics on mango (*Mangifera indica* L.) ripening during storage. *Postharvest Biology and Technology*, *17*, 215–226.
- Barros-Velázquez, J. (2016). *Antimicrobial Food Packaging*. London, UK: Academic Press.
- Bastarrachea, L., Dhawan, S., Sablani, S. S., Mah, J., Kang, D., Zhang, J., & Tang, J. (2010). Biodegradable poly(butylene adipate-co-terephthalate) films incorporated with nisin: Characterization and effectiveness against *Listeria innocua*. *Journal of Food Science*, *75*, 215–224.

- Bautista-Baños, S., Hernández-Lauzardo, A. N., Velázquez-del Valle, M. G., Hernández-López, M., Ait Barka, E., Bosquez-Molina, E., & Wilson, C. L. (2006). Chitosan as a potential natural compound to control pre and postharvest diseases of horticultural commodities. *Crop Protection*, 25, 108–118.
- Ben-Arie, R., & Sonogo, L. (1985). Modified-atmosphere storage of kiwifruit (*Actinidia chinensis* Planch.) with ethylene removal. *Scientia Horticulturae*, 27, 263–273.
- Bifani, V., Ramírez, C., Ihl, M., Rubilar, M., García, A., & Zaritzky, N. (2007). Effects of murta (*Ugni molinae* Turcz) extract on gas and water vapor permeability of carboxy methylcellulose-based edible films. *LWT - Food Science and Technology*, 40(8), 1473–1481.
- Birley, A. W., Haworth, B., & Batchelor, J. (1992). *Physics of plastics—processing properties and materials engineering*. Germany: Carl Hanser Verlag.
- Bleecker, A. B., & Kende, H. (2000). Ethylene: a gaseous signal molecule in plants. *Annual Review of Cell and Developmental Biology*, 16, 1–18.
- Boonchird, C., & Flegel, T. W. (1982). *In vitro* antifungal activity of eugenol and vanillin against *Candida albicans* and *Cryptococcus neoformans*. *Canadian Journal of Microbiology*, 28, 1235–1241.
- Bordenave, N., Grelier, S., Pichavant, F., & Coma, V. (2007). Water and moisture susceptibility of chitosan and paper-based materials: Structure–property relationships. *Journal of Agricultural and Food Chemistry*, 55(23), 9479–9488.
- Breck, D. W. (1974). *Zeolite molecular sieves. Structure, chemistry and uses*. New York: John Wiley & Sons.
- Brody, A. L., Strupinsky, E. R., & Kline, L. R. (2001). *Active packaging for food applications*. New York, NY: CRC press.
- Brown, G. E., & Barmore, C. R. (1976). The effect of ethylene, fruit color, and fungicides on susceptibility of ‘Robinson’ tangerines anthracnose. *Proceedings of the Florida State Horticultural Society*, 89, 198–200.

- Burri, J., Graf, M., Lambelet, P., & Loliger, J. (1989). Vanillin: more than a flavouring agent - a potent antioxidant. *Journal of the Science of Food and Agriculture*, 48, 49–56.
- Busso, E. P., Wright, L., Evans, H. E., McCartney, L. N., Saunders, S. R. J., Osgerby, S., & Nunn, J. (2007). A physics-based life prediction methodology for thermal barrier coating systems. *Acta Materialia*, 55(5), 1491–1503.
- Cejka, J., van Bekkum, H. Corma, A., & Schueth, F. (2007). Introduction to zeolite science and practice. Oxford, UK: Elsevier B.V.
- Cerrutti, P., & Alzamora, S. M. (1996). Inhibitory effects of vanillin on some food spoilage yeasts in laboratory media and fruit purees. *International Journal of Food Microbiology*, 29, 379–386.
- Chalier, P., Ben Arfa, A., Guillard, V., & Gontard, N. (2009). Moisture and temperature triggered release of a volatile agent from soy protein coated paper. Effect of glass transition phenomena on carvacrol diffusion coefficient. *Journal of Agricultural and Food Chemistry*, 57, 658–665.
- Chang, B. P., Akil, H. M., & Nasir, R. M. (2013). Mechanical and tribological properties of zeolite reinforced UHMWPE composite for implant application. *Procedia Engineering*, 68, 88–94.
- Chang, S. T., Chen, P. F., & Chang, S. C. (2001). Antibacterial activity of leaf essential oils and their constituents from *Cinnamomum osmophloeum*. *Journal of Ethnopharmacology*, 77, 123–127.
- Cheng, L. H., Karima, A. A., & Seow, C. C. (2008). Characterisation of composite films made of konjac glucomannan (KGM), carboxymethyl cellulose (CMC) and lipid. *Food Chemistry*, 107(1), 411–418.
- Choi, S. O. (1991). *Orega ultra-high gas permeability film for fresh product packaging*. CAP 91, International Conference on Controlled/Modified Atmosphere/Vacuum Packaing (pp. 197–208). Princeton, New Jersey: Schotland Business Research, Inc.
- Choi, J. H., Choi, W. Y., Cha, D. S., Chinnan, M. J., Park, H. J., Lee, D. S., & Park, J. M. (2005). Diffusivity of potassium sorbate in  $\kappa$ -carrageenan based antimicrobial film. *LWT - Food Science and Technology*, 38(4), 417–423.

- Cincotti, A., Mameli, A., Locci, M. A., Orru, R., & Cao, G. (2006). Heavy metal uptake by Sardinian natural zeolites: Experiment and modelling. *Industrial & Engineering Chemistry Research*, *45*, 1074–1084.
- Cisneros-Zevallos, L., & Krochta, J. M. (2003). Dependence of coating thickness on viscosity of coating solution applied to fruits and vegetables by dipping method. *Journal of Food Science*, *68*, 503–510.
- Cissé, M., Polidori, J., Montet, D., Loiseau, G., & Ducamp-Collin, M. N. (2015). Preservation of mango quality by using functional chitosan-lactoperoxidase systems coatings. *Postharvest Biology and Technology*, *101*, 10–14.
- Coma, V., Deschamps, A., & Martial-Gros, A. (2003). Bioactive packaging materials from edible chitosan polymer—antimicrobial activity assessment on dairy-related contaminants. *Journal of Food Science*, *68*(9), 2788–2792.
- Cooksey, K. (2001). Antimicrobial food packaging materials. *Additives for Polymers*, *8*, 6–10.
- Crank, J. (1975). *The Mathematics of Diffusion*. (2nd ed.). Oxford: Clarendon Press.
- Cuq, B., Gontard, N., & Guilbert, S. (1995). Edible films and coatings as active layers. In (M. L. Rooney), *Active Food Packaging* (pp. 111–142). Dordrecht, Netherlands: Springer Science+Business Media.
- Dabrowski, A., Podkościelny, P., Hubicki, Z., & Barczak, M. (2005). Adsorption of phenolic compounds by activated carbon—a critical review. *Chemosphere*, *58*(8), 1049–1070.
- Daeschel, M. A., & McGuire, J. (1995). Bactericidal surfaces and articles with attached bacteriocin. USA, USPTO.
- Day, B. P. F. (2008). Active packaging of food. In J. Kerry & P. Butler (Eds.), *Smart Packaging Technologies for Fast Moving Consumer Goods* (pp. 1–18). Chichester, UK: John Wiley & Sons.
- Denuziere, A., Ferrier, D., Damour, O., & Domard, A. (1998). Chitosan-chondroitin sulphate and chitosan-hyaluronate polyelectrolyte complexes: biological properties. *Biomaterials*, *19*, 1275–1285.

- Derbyshire, F., Jagtoyen, M., Andrews, R., Rao, A., Martin-Gullon, I., & Grulke, E. (2001). Carbon materials in environmental applications. In L. R. Radovic (Ed.), *Chemistry and Physics of Carbon* (pp. 1–66). New York, NY: Marcel Dekker.
- Despond, S., Espuche, E., & Domard, A. (2001). Water sorption and permeation in chitosan films: Relation between gas permeability and relative humidity. *Journal of Polymer Science: Part B: Polymer Physics*, 39(24), 3114–3127.
- Dhall, R. K. (2013). Advances in edible coatings for fresh fruits and vegetables: a review. *Critical Reviews in Food Science and Nutrition*, 53, 435–450.
- Dorman, H. J. D., & Deans, S. G. (2000). Antimicrobial agents from plants: antibacterial activity of plant volatile oils. *Journal of Applied Microbiology*, 88, 308–316.
- Du, Z., Deng, S., Bei, Y., Huang, Q., Wang, B., Huang, J., & Yu, G. (2014). Adsorption behavior and mechanism of perfluorinated compounds on various adsorbents—A review. *Journal of hazardous materials*, 274, 443–454.
- Dyer, A. (1988). *An introduction to zeolite molecular sieves*. Chichester, UK: John Wiley & Sons.
- El-Sherbiny, I. M., Salama, A., & Sarhan, A. A. (2009). Grafting study and antifungal activity of a carboxymethyl cellulose derivative. *International Journal of Polymeric Materials and Polymeric Biomaterials*, 58(9), 453–467.
- Erdoğan, B., Sakızcı, M., & Yörükoğulları, E. (2008). Characterization and ethylene adsorption of natural and modified clinoptilolites. *Applied Surface Science*, 254, 2450–2457.
- FAOSTAT. (2012). Top ten producing countries of mango. Internet: <http://faostat3.fao.org/home>. (accessed 16 October 2016).
- Fang, E., Cheng, Q., & Lu, X. B. (1998). Kinetics of *in vitro* drug release from chitosan/gelatin hybrid membranes. *Journal of Applied Polymer Science*, 68, 1751–1758.
- Farrauto, R. J. (1997). *Fundamentals of industrial catalytic processes*. London, UK: Blackie Academic.

- Feng, X., Pelton, R., & Leduc, M. (2006). Mechanical properties of polyelectrolyte complex films based on polyvinylamine and carboxymethyl cellulose. *Industrial & Engineering Chemistry Research*, 45(20), 6665–6671.
- Feron, V. J., Til, H. P., de Vrijer, F., Woutersen, R. A., Cassee, F. R., & van Bladeren, P. J. (1991). Aldehydes: occurrence, carcinogenic potential, mechanism of action and risk assessment. *Mutation Research*, 259, 363–385.
- Fitzell, R. D., & Peak, C. M. (1984). The epidemiology of anthracnose disease of mango: Inoculum sources, spore production and dispersal. *Annals of Applied Biology*, 104, 53–59.
- Fitzgerald, D. J., Stratford, M., & Narbad, A. (2003). Analysis of the inhibition of food spoilage yeasts by vanillin. *International Journal of Food Microbiology*, 86, 113–122.
- Fitzgerald, D. J., Stratford, M., Gasson, M. J., & Narbad, A. (2005). Structure–function analysis of the vanillin molecule and its antifungal properties. *Journal of agricultural and food chemistry*, 53, 1769–1775.
- Fitzgerald, D. J., Stratford, M., Gasson, M. J., Ueckert, J., Bos, A., & Narbad, A. (2004). Mode of antimicrobial action of vanillin against *Escherichia coli*, *Lactobacillus plantarum* and *Listeria innocua*. *Journal of Applied Microbiology*, 97, 104–113.
- Flaishman, M. A., & Kolattukudy, P. E. (1994). Timing of fungal invasion using host's ripening hormone as a signal. *Proceedings of the National Academy of Sciences of the United States of America*, 91, 6579–6583.
- Floros, J., Nielsen, P., & Farkas, J. (2000). Advances in modified atmosphere and active packaging with applications in the dairy industries. *Bulletin of the International Dairy Federation*, 346, 22–28.
- Food Safety Consortium Newsletter. (2000). Digital State Publication Collections, Arkansas State University, 10(3).
- Freeman, S., & Shabi, E. (1996). Cross-infection of subtropical and temperate fruits by *Colletotrichum* species from various hosts. *Physiological and Molecular Plant Pathology*, 49, 395–404.

- Fuchs, Y., & Temkin-Gorodeiski, N. (1971). The course of ripening banana fruits stored in sealed polyethylene bags. *Journal of the American Society for Horticultural Science*, 96(4), 401–403.
- Gadgile, D. P., Chavan, A. M., Kakde, R. B., Haiti, A. D., Pangrikar, P. P., & Gaikwad, R. S. (2009). Influence of environmental factors on the development of *Colletotrichum gloeosporioides* rot (Anthracnose) of mango fruits. *Environment Conservation Journal*, 10(3), 73–75.
- Gällstedt, M. (2001). Packaging-related properties of uncoated, coated and laminated whey protein and chitosan films (Doctoral dissertation). Stockholm, Sweden: Packforsk-KTH.
- Gällstedt, M., & Hedenqvist, M. S. (2004). Packaging-related properties of alkyd-coated, wax coated, and buffered chitosan and whey protein films. *Journal of Applied Polymer Science*, 91, 60–67.
- Gällstedt, M., Brottman, A., & Hedenqvist, M. S. (2005). Packaging-related properties of protein- and chitosan-coated paper. *Packaging Technology and Science*, 18, 161–70.
- Gantotti, B. V., & Davis, M. J. (1993). Pectic zymogram analysis for characterizing genetic diversity of the mango anthracnose pathogen. *Proceedings of the 4<sup>th</sup> International Mango Symposium. Acta Horticulturae*, 341, 353–359.
- Garcia, M., Casariego, A., Diaz, R., & Roblejo, L. (2014). Effect of edible chitosan/zeolite coating on tomatoes quality during refrigerated storage. *Emirates Journal of Food and Agriculture*, 26(3), 238–246.
- Ghanbarzadeh, B., & Almasi, A. A. (2011). Physical properties of edible emulsified films based on carboxymethyl cellulose and oleic acid. *International Journal of Biological Macromolecules*, 48(1), 44–49.
- Ghanbarzadeh, B., Almasi, H., & Entezami, A. A. (2010). Physical properties of edible modified starch/carboxymethyl cellulose films. *Innovative Food Science and Emerging Technologies*, 11, 697–702.
- Ghaouth, A. E., Ponnampalam, R., Castaigne, F., & Arul, J. (1992). Chitosan coating to extend the storage life of tomatoes. *HortScience*, 27(9), 1016–1018.

- Goldberg, S., Doyle, R. J., & Rosenberg, M. (1990). Mechanism of enhancement of microbial cell hydrophobicity by cationic polymers. *Journal of Bacteriology*, *172*(10), 5650–5654.
- Gontard, N., & Ring, S. (1996). Edible wheat gluten film: Influence of water content on glass transition temperature. *Journal of Agricultural and Food Chemistry*, *44*, 3474–3478.
- González-Aguilar, G. A., Buta, J. G., & Wang, C. Y. (2003). Methyl jasmonate and modified atmosphere packaging (MAP) reduce decay and maintain post harvest quality of papaya 'Sunrise'. *Postharvest Biology and Technology*, *28*, 361–370.
- Guo, Y., Yadav, A., & Karanfil, T. (2007). Approaches to mitigate the impact of dissolved organic matter on the adsorption of synthetic organic contaminants by porous carbonaceous sorbents. *Environmental Science and Technology*, *41*(22), 7888–7894.
- Gustafson, D. L., Franz, H. R., Ueno, A. M., Smith, C. J., Doolittle, D. J., & Walden, C. A. (2000). Vanillin (3-methoxy-4-hydroxybenzaldehyde) inhibits mutation induced by hydrogen peroxide, N-methyl-N-nitrosoguanidine and mitomycin C but not 137Cs gamma radiation at the CD59 locus in human-hamster hybrid A(L) cells. *Mutagenesis*, *15*, 207–213.
- Gutiérrez, M. Q., Echeverría, I., Ihl, M., Bifani, V., & Mauri, A. N. (2012). Carboxymethylcellulose–montmorillonite nanocomposite films activated with murta (*Ugni molinae* Turcz) leaves extract. *Carbohydrate Polymers*, *87*(2), 1495–1502.
- Han, J. H. (2000). Antimicrobial food packaging. *Food Technology*, *54*, 56–65.
- Hatton, T. T., & Reeder, W. F. (1972). Quality of 'Lula' avocados stored in controlled atmospheres with or without ethylene. *Journal of the American Society for Horticultural Science*, *97*, 339–341.
- Helander, I. M., Nurmiäho-Lassila, E. -L., Ahvenainen, R., Rhoades, J., & Roller, S. (2001). Chitosan disrupts the barrier properties of the outer membrane of Gram-negative bacteria. *International Journal of Food Microbiology*, *71*(2–3), 235–244.
- Hoa, T. T., Ducamp, M., Lebrun, M., & Baldwin, E. A. (2002). Effect of different coating treatments on the quality of mango fruit. *Journal of Food Quality*, *25*, 471–486.

- Hotchkiss, J. H. (1997). Food-packaging interactions influencing quality and safety. *Food Additives and Contaminants*, 14(6,7), 601–607.
- Hyodo, H. (1991). Stress/wound ethylene. In A. K. Mattoo & J. C. Suttle (Eds.), *The Plant Hormone Ethylene* (pp. 43–64). Boca Raton, FL: CRC Press.
- IUPAC Compendium of Chemical Terminology (2014). Internet: <https://goldbook.iupac.org/pdf/goldbook.pdf> (accessed 08 August 2016).
- Jay, J. M., & Rivers, G. M. (1984). Antimicrobial activity of some food flavoring compounds. *Journal of Food Safety*, 6, 129–139.
- Jeffries, P., Dodd, J. C., Jeger, M. J., & Plumbley, R. A. (1990). The biology and control of *Colletotrichum* species on tropical fruit crops. *Plant Pathology*, 39, 343–366.
- Johnson, G. I., Boag, T. S., Cooke, A. W., Izard, M., Panitz, M., & Sangchote, S. (1990). Interaction of post harvest disease control treatments and gamma irradiation on mangoes. *Annals of Applied Biology*, 116(2), 245–251.
- Jongsri, P., Wangsomboondee, T., Rojsitthisak, P., & Seraypheap, K. (2016). Effect of molecular weights of chitosan coating on postharvest quality and physicochemical characteristics of mango fruit. *LWT - Food Science and Technology*, 73, 28–36.
- Kader, A. A. (1985). Ethylene-induced senescence and physiological disorders in harvested horticultural crops. *HortScience*, 20, 54–57.
- Kanellis, A. K., Chang, C., Kende, H., & Grierson, D. (1997). *Biology and biotechnology of the plant hormone ethylene*. Netherlands: Springer.
- Karanfil, T. (2006). Activated carbon adsorption in drinking water treatment. In T. J. Bandosz (Ed.), *Activated Carbon Surfaces in Environmental Remediation* (Vol. 7) (pp. 345–343). New York, NY: Academic Press.
- Karanfil, T., & Dastgheib, S. A. (2004). Trichloroethylene adsorption by fibrous and granular activated carbons: Aqueous phase, gas phase and water vapor adsorption studies. *Environmental Science and Technology*, 38(22), 5834–5841.
- Karanfil, T., & Kilduff, J. E. (1999). Role of granular activated carbon surface chemistry on the adsorption of organic compounds. 1. Priority pollutants. *Environmental Science and Technology*, 33(18), 3217–3224.

- Kende, H. (1993). Ethylene biosynthesis. *Annual Review of Plant Physiology and Plant Molecular Biology*, 44, 283–307.
- Khan, T. A., Peh, K. K., & Ch'ng, H. S. (2002). Reporting degree of deacetylation values of chitosan: the influence of analytical methods. *Journal of Pharmacy and Pharmaceutical Sciences*, 5, 205–212.
- Khwaldia, K. (2010). Water vapor barrier and mechanical properties of paper-sodium caseinate and paper-sodium caseinate-paraffin wax films. *Journal of Food Biochemistry*, 34(5), 998–1013.
- Khwaldia, K., Arab-Tehrany, E., & Desobry, S. (2010). Biopolymer coatings on paper packaging materials. *Comprehensive Reviews in Food Science and Food Safety*, 9, 82–91.
- Kim, Y., Brecht, J. K., & Talcott, S. T. (2007). Antioxidant phytochemical and fruit quality changes in mango (*Mangifera indica* L.) following hot water immersion and controlled atmosphere storage. *Food Chemistry*, 105, 1327–1334.
- King, A. A., Shaughnessy, D. T., Mure, K., Leszczynska, J., Ward, W. O., Umbach, D. M., Xu, Z., Ducharme, D., Taylor, J. A., DeMarini, D. M., & Klein, C. B. (2007). Antimutagenicity of cinnamaldehyde and vanillin in human cells: Global gene expression and possible role of DNA damage and repair. *Mutation Research*, 616, 60–69.
- Kittur, F. S., Kumar, K. R., & Tharanathan, R. N. (1998). Functional packaging properties of chitosan films. *European Food Research and Technology*, 206(1), 44–47.
- Kjellgren, H., Gällstedt, M., Engström, G., & Järnström, L. (2006). Barrier and surface properties of chitosan-coated greaseproof paper. *Carbohydrate Polymers*, 65, 453–460.
- Kose, H. S. (2010). *The effects of physical factors on the adsorption of synthetic organic compounds by activated carbons and activated carbon fibers* (Master's thesis). Clemson, SC: Clemson University.
- Krishnamurthy, S., & Kushalappa, C. G. (1985). Studies on the Shelf-life and quality of 'Robusta' bananas as affected by post-harvest treatment. *Journal of Horticultural Science*, 60(4), 549–556.

- Kurek, M., Guinault, A., Voilley, A., Galic, K., & Debeaufort, F. (2014). Effect of relative humidity on carvacrol release and permeation properties of chitosan based films and coatings. *Food Chemistry*, *144*, 9–17.
- Laine, J., Lindström, T., Nordmark, G. G., & Risinger, G. (2002). Studies on topochemical modification of cellulosic fibers. Part 1. Chemical conditions for the attachment of carboxymethyl cellulose onto fibres. *Nordic Pulp and Paper Research Journal*, *15*(5), 520–526.
- Lakshminarayana, S., & Subramanyam, H. (1970). Carbon dioxide injury and fermentative decarboxylation in mango fruit at low temperature storage. *Journal of Food Science and Technology*, *7*(3), 148–152.
- Laleg, M., & Pikulik, I. I. (1991). Wet-web strength increase by chitosan. *Nordic Pulp and Paper Research Journal*, *6*(3), 99–103.
- Langer, R., & Peppas, N. (1983). Chemical and physical structure of polymers as carriers for controlled release of bioactive agents: a review. *Journal of Macromolecular Science—Reviews in Macromolecular Chemistry and Physics*, *C23*(1), 61–126.
- Laohaprasit, N., Kukreja, R. K., & Arunrat, A. (2012). Extraction of volatile compounds from ‘Nam Dok Mai’ and ‘Maha Chanok’ mangoes. *International Food Research Journal*, *19*(4), 1445–1448.
- Lazaridou, A., & Biliaderis, C. G. (2005). Thermophysical properties of chitosan, chitosan-starch and chitosan-pullulan films near the glass transition. *Carbohydrate Polymers*, *48*, 179–190.
- Levine, S. N., & LaCourse, W. C. (1967). Materials and design consideration for a compact artificial kidney. *Journal of Biomedical Materials Research*, *1*(2), 275–284.
- Li, L., Quinlivan, P. A., & Knappe, D. R. U. (2002). Effects of activated carbon surface chemistry and pore structure on the adsorption of organic contaminants from aqueous solution. *Carbon*, *40*, 2085–2100.
- Li, P., & Barth, M. M. (1998). Impact of edible coatings on nutritional and physiological changes in lightly processed carrots. *Postharvest Biology and Technology*, *14*, 51–60.

- Li, X. F., Feng, X. Q., Yang, S., Fu, G. Q., Wang, T. P., & Su, Z. X. (2010). Chitosan kills *Escherichia coli* through damage to be of cell membrane mechanism. *Carbohydrate Polymers*, 79(3), 493–499.
- Lieberman, E. R., & Gilbert, S. G. (1973). Gas permeation of collagen films as affected by cross-linkage, moisture, and plasticizer content. *Journal of Polymer Science: Polymer Symposia*, 41(1), 33–43.
- Lim, L. -T., & Tung, M. A. (1997). Vapor pressure of allyl isothiocyanate and its transport in PVDC/PVC copolymer packaging film. *Journal of Food Science*, 62(5), 1061–1066.
- Lirdprapamongkol, K., Sakurai, H., Kawasaki, N., Choo, M. K., Saitoh, Y., Aozuka, Y., Singhirunnusorn, P., Ruchirawat, S., Svasti, J., & Saiki, I. (2005). Vanillin suppresses *in vitro* invasion and *in vivo* metastasis of mouse breast cancer cells. *European Journal of Pharmaceutical Sciences*, 25, 57–65.
- Litz, R. E. (2009). Mango. *Compendium of Transgenic Crop Plants*, 5(6), 163–174.
- Liu, F. W. (1970). Storage of banana in polyethylene bags with ethylene absorbent. *Horticultural Science*, 13, 690–702.
- Liu, H., Du, Y., Wang, X., & Sun, L. (2004). Chitosan kills bacteria through cell membrane damage. *International Journal of Food Microbiology*, 95, 147–155.
- Lopez-Malo, A., Alzamora, S. M., & Argai, A. (1995). Effect of natural vanillin on germination time and radial growth of moulds in fruit-based agar systems. *Food Microbiology*, 12, 213–219.
- Lopez-Malo, A., Alzamora, S. M., & Argai, A. (1997). Effect of vanillin concentration, pH and incubation temperature on *Aspergillus flavus*, *Aspergillus niger*, *Aspergillus ochraceus* and *Aspergillus parasiticus* growth. *Food Microbiology*, 14, 117–124.
- Lopez-malo, A., Alzamora, S. M., & Argai, A. (1998). Vanillin and pH synergistic effects on mold growth. *Journal of Food Science*, 63, 143–146.
- Mahapatro, A., & Singh, D. J. (2011). Biodegradable nanoparticles are excellent vehicle for site directed in-vivo delivery of drugs and vaccines. *Journal of Nanobiotechnology*, 9, 55–65.

- Mangun, C. L., Benak, K. R., Economy, J., & Foster, L. K. (2001). Surface chemistry, pore size and adsorption properties of activated carbon fibers and precursors treated with ammonia. *Carbon*, *39*(12), 1809–1820.
- Maotani, T., Yamada, M., & Kurihara, A. (1982). Storage of Japanese persimmon of pollination constant non-astringent type in polyethylene bags with ethylene absorbent. *Journal of Japanese Society for Horticultural Science, Tokyo*, *51*, 195–202.
- Marcus, B. K., & Cormier, W. E. (1999). Going green with zeolites. *Chemical Engineering Progress*, *95*(6), 47–53.
- Martínez-Romero, D., Bailén, G., Serrano, M., Guillén, F., Valverde, J. M., Zapata, P., Castillo, S., & Valero, D. (2007). Tools to maintain postharvest fruit and vegetable quality through the inhibition of ethylene action: A review. *Critical Reviews in Food Science and Nutrition*, *47*, 543–560.
- Mascheroni, E., Guillard, V., Gastaldi, E., Gontard, N., & Chalier, P. (2011). Anti-microbial effectiveness of relative humidity-controlled carvacrol release from wheat gluten/montmorillonite coated papers. *Food Control*, *22*, 1582–1591.
- Mastromatteo, M., Mastromatteo, M., Conte, A., & Del Nobile, M. A. (2010). Advances in controlled release devices for food packaging applications. *Trend in Food Science & Technology*, *21*, 591–598.
- Mattoo, A. K., & Modi, V. V. (1969). Ethylene and ripening of mangoes. *Plant Physiology*, *44*, 308–310.
- Mattoo, A. K., & Suttle, J. C. (1991). *The plant hormone ethylene*. Florida: CRC Press.
- Matveev, Y. I., Grinberg, V. Y., & Tolstoguzov, V. B. (2000). The plasticizing effect of water on proteins, polysaccharides and their mixtures. Glassy state of biopolymers, food and seeds. *Food Hydrocolloids*, *14*, 425–437.
- McGuire, R. G., & Hallman, G. J. (1995). Coating guavas with cellulose- or carnauba-based emulsions interferes with postharvest ripening. *HortScience*, *30*, 294–295.
- Medina, J. D. L. C., & García, H. S. (2002). Mango: Post-harvest operations. *Post-Harvest Compendium, AGST, FAO*, 1–69.

- Medina, J. D. L. C., Jiménez, G. C. R., García, H. S., Zarrabal, T. L. R., Alvarado, M. Á. G., & Olvera, V. J. R. (2009). Vanilla: Post-harvest operations. *Post-Harvest Compendium, AGST, FAO*, 1–50.
- Meng, X., Yang, L., Kennedy, J. F., & Tian, S. (2010). Effects of chitosan and oligochitosan on growth of two fungal pathogens and physiological properties in pear fruit. *Carbohydrate Polymers*, *81*(1), 70–75.
- Mishra, V. K., & Gamage, T. V. (2007). Postharvest physiology of fruit and vegetables. In M. S. Rahman (Ed.), *Handbook of Food Preservation* (pp. 19–48). Boca Raton, FL: CRC press (Taylor and Francis Group).
- Moon, K. D., Delaquis, P., Toivonen, P., & Stanich, K. (2006). Effect of vanillin on the fate of *Listeria monocytogenes* and *Escherichia coli* O157:H7 in a model apple juice medium and in apple juice. *Food Microbiology*, *23*, 169–174.
- Myint, S., Daud, W. R. E., Mohamad, A. B., & Kadhum, A. A. H. (1996). Temperature-dependent diffusion coefficient of soluble substances during ethanol extraction of clove. *Journal of the American Oil Chemists' Society*, *73*(5), 603–610.
- Natrajan, N., & Sheldon, B. W. (2000). Efficacy of nisin-coated polymer films to inactivate *Salmonella typhimurium* on fresh broiler skin. *Journal of Food Protection*, *63*(9), 1189–1196.
- Nicu, R., Bobu, E., & Desbrieres, J. (2011). Chitosan as cationic polyelectrolyte in wet-end papermaking systems. *Cellulose Chemistry and Technology*, *45*(1–2), 105–111.
- Niu, X., Bressan, R. A., Hasegawa, P. M., & Pardo, J. M. (1995). Ion homeostasis in NaCl stress environments. *Plant Physiology*, *109*, 735–742.
- Nunes, C. N., & Emond, J. P. (2007). Relationship between weight loss and visual quality of fruits and vegetables. *Proceedings of the Florida State Horticultural Society*, *120*, 235–245.
- Ouattara, B., Simard, R. E., Piette, G., Bégin, A., & Holley, R. A. (2000). Diffusion of acetic and propionic acids from chitosan-based antimicrobial packaging films. *Journal of Food Science*, *65*(5), 768–773.

- Paliyath, G., & Murr, D. P. (2008). Biochemistry of fruits. In G. Paliyath, D. P. Murr, A. K. Handa, & S. Lurie (Eds.), *Postharvest biology and technology of fruits, vegetables and flowers* (pp. 19–50). Iowa, Ames: Wiley Blackwell Publishing.
- Pan, B., & Xing, B. S. (2008). Adsorption mechanisms of organic chemicals on carbon nanotubes. *Environmental Science & Technology*, 42(24), 9005–9013.
- Papineau, A. M., Hoover, D. G., Knorr, D., & Farkas, D. F. (1991). Antimicrobial effect of water-soluble chitosans with high hydrostatic pressure. *Food Biotechnology*, 5, 45–57.
- Pardini, S. P. (1987). Method for imparting antimicrobial activity from acrylics. US patent No. 4,708,870.
- Pariasca, J. A. T., Miyazaki, T., Hisaka, H., Nakagawa, H., & Sato, T. (2000). Effect of modified atmosphere packaging (MAP) and controlled atmosphere (CA) storage on the quality of snow pea pods (*Pisum sativum* L. var. *saccharatum*). *Postharvest Biology and Technology*, 21, 213–223.
- Park, H. J. (1999). Development of advanced edible coatings for fruits. *Trends in Food Science & Technology*, 10, 254–260.
- Park, H. J., Chinnan, M. S., & Shewfelt, R. L. (1994). Edible coating effects on storage life and quality of tomatoes. *Journal of Food Science*, 59, 568–570.
- Patdhanagul, N., Srithanratana, T., Rangsiwatananon, K., & Hengrasmee, S. (2010). Ethylene adsorption on cationic surfactant modified zeolite NaY. *Microporous and Mesoporous Materials*, 131, 97–102.
- Patil, S. K., & Shanmugasundaram, S. (2015). Physicochemical changes during ripening of monthan banana. *International Journal of Technology Enhancements and Emerging Engineering Research*, 3(2), 18–21.
- Paunonen, S. (2013). Strength and barrier enhancements of cellophane and cellulose derivative films: A review. *BioResources*, 8(2), 3098–3121.
- Peppas, N. A. (1985). Analysis of Fickian and non Fickian drug release from polymers. *Pharmaceutical Acta Helvetiae*, 60, 110–111.

- Petersson, A., Thomsen, M. H., Hauggaard-Nielsen, H., & Thomsen, A. B. (2007). Potential bioethanol and biogas production using lignocellulosic biomass from winter rye, oilseed rape and faba bean. *Biomass and Bioenergy*, 31(11–12), 812–819.
- Plascencia-Jatomea, M., Viniegra, G., Olayo, R., Castillo-Ortega, M. M., & Shirai, K. (2003). Effect of chitosan and temperature on spore germination of *Aspergillus niger*. *Macromolecules Bioscience*, 3(10), 582–586.
- Pothakamury, U. R., & Barbosa-Canovas, G. V. (1995). Fundamental aspects of controlled release in foods. *Trends in Food Science & Technology*, 6, 397–406.
- Prasanna, V., Prabha, T. N., & Tharanathan, R. N. (2007). Fruit ripening phenomena—An overview. *Critical Reviews in Food Science and Nutrition*, 47, 1–19.
- Prusky, D. (1996). Pathogen quiescence in postharvest diseases. *Annual Review of Phytopathology*, 34, 413–434.
- Rachtanapun, P., & Rattanapanone, N. (2011). Synthesis and characterization of carboxymethyl cellulose powder and films from *Mimosa pigra*. *Journal of Applied Polymer Science*, 122(5), 3218–3226.
- Rachtanapun, P., & Wongchaiya, P. (2012). Effect of relative humidity on mechanical properties of blended chitosan-methylcellulose film. *Chiang Mai Journal of Science*, 39(1), 133–137.
- Rachtanapun, P., Luankamin, S., Tanprasert, K., & Suriyaterm, R. (2012). Carboxymethyl cellulose film from durian rind. *LWT – Food Science and Technology*, 48(1), 52–58.
- Rahman, M.H., Shovan, L. R., Hjeljord, L. G., Aam, B. B., Eijsink, V. G. H., Sørli, M., & Tronsmo, A. (2014). Inhibition of fungal plant pathogens by synergistic action of chito-oligosaccharides and commercially available fungicides. *PLoS ONE*, 9(4), 1–10.
- Rakchoy, S., Suppakul, P., & Jinkarn, T. (2009). Antimicrobial effects of vanillin coated solution for coating paperboard intended for packaging bakery products. *Asian Journal of Food and Agro-Industry*, 2(4), 138–147.

- Ramírez, C., Gallegos, I., Ihl, M., & Bifani, V. (2012). Study of contact angle, wettability and water vapor permeability in carboxymethylcellulose (CMC) based film with murta leaves (*Ugni molinae* Turcz) extract. *Journal of Food Engineering*, 109(3), 424–429.
- Rathod, G. M. (2011). Effect of physical factors on development of anthracnose of mango fruits. *Current Botany*, 2(1), 15–16.
- Rathore, H. A., Masud, T., Sammi, S., & Soomro, A. H. (2007). Effect of storage on physico-chemical composition and sensory properties of mango (*Mangifera indica* L.) variety Dosehari. *Pakistan Journal of Nutrition*, 6, 143–148.
- Ratto, J., Hatakeyama, T., & Blumstein, R. B. (1995). Differential scanning calorimetry investigation of phase transitions in water/chitosan systems. *Polymer*, 36(15), 2915–2919.
- Rivera-Vargas, L. I., Lugo-Noel, Y., McGovern, R. J., Seijo, T., & Davis, M. J. (2006). Occurrence and distribution of *Colletotrichum* spp. on mango (*Mangifera indica* L.) in Puerto Rico and Florida, USA. *Plant Pathology Journal*, 5, 191–8.
- Robertson, G. L. (2006). *Food Packaging – Principles and Practice* (2nd ed.). Boca Raton, FL: CRC Press.
- Rodríguez, A., Batlle, R., & Nerín, C. (2007). The use of natural essential oils as antimicrobial solutions in paper packaging. Part II. *Progress in Organic Coatings*, 60, 33–38.
- Rojas, E. I., Rehner, S. A., Samuels, G. J., Van Bael, S. A., Herre, E. A., Cannon, P., Chen, R., Pang, J., Wang, R., Zhang, Y., Peng, Y. Q., & Sha, T. (2010). *Colletotrichum gloeosporioides* s.l. associated with *Theobroma cacao* and other plants in Panamá: multilocus phylogenies distinguish host-associated pathogens from asymptomatic endophytes. *Mycologia*, 102(6), 1318–1338.
- Rudra, S. G., Singh, V., Jyotia, S. D., & Shivhare, U. S. (2013). Mechanical properties and antimicrobial efficacy of active wrapping paper for primary packaging of fruits. *Food Bioscience*, 3, 49–58.

- Rupasinghe, H. P. V., Boulter-Bitzer, J., Ahn, T., & Odumeru, J. A. (2006). Vanillin inhibits pathogenic and spoilage microorganisms in vitro and aerobic microbial growth in fresh-cut apples. *Food Research International*, 39, 575–580.
- Saltveit, M. E. (1999). Effect of ethylene on quality of fresh fruits and vegetables. *Postharvest Biology and Technology*, 15, 279–292.
- Samuels, R. J. (1981). Solid state characterization of the structure of chitosan films. *Journal of Polymer Science: Polymer Physics Edition*, 19(7), 1081–1105.
- Sanchez-Gonzalez, L., Cháfer, M., González-Martínez, C., Chiralt, A., & Desobry, S. (2011). Study of the release of limonene present in chitosan films enriched with bergamot oil in food simulants. *Journal of Food Engineering*, 105(1), 138–143.
- Sangchote, S. (1987). Postharvest diseases of mango fruits and their losses. *Kasetsart Journal (Natural Science)*, 21(1), 81–85.
- Sangsuwan, J., Rattanapanone, N., Auras, R. A., Harte, B. R., & Rachtanapun, P. (2009). Factors affecting migration of vanillin from chitosan/methyl cellulose films. *Journal of Food Science*, 74(7), C549–C555.
- Sangsuwan, J., Rattanapanone, N., & Rachtanapun, P. (2008). Effect of chitosan/methylcellulose film on microbial and quality characteristics of fresh-cut cantaloupe and pineapple. *Postharvest Biology and Technology*, 49, 403–410.
- Sanla-Ead, N., Jangchud, A., Chonhenchab, V., & Suppakul, P. (2006). Antimicrobial activity of cinnamaldehyde and eugenol and their activity after incorporation into cellulose-based packaging films. *Packaging Technology and Science*, 25(1), 7–17.
- Sayanjali, S., Ghanbarzadeh, B., & Ghiassifar, S. (2011). Evaluation of antimicrobial and physical properties of edible film based on carboxymethyl cellulose containing potassium sorbate on some mycotoxigenic *Aspergillus* species in fresh pistachios. *LWT - Food Science and Technology*, 44(4), 1133–1138.
- Scott, K. J., McGlasson, W. B., & Roberts, E. A. (1970). Potassium permanganate as an ethylene absorbent in polyethylene bags to delay ripening of bananas during storage. *Australian Journal of Experimental Agriculture and Animal Husbandry*, 10(43), 237–240.

- Sebti, I., Martial-Gros, A., Carnet-Pantiez, A., Grelier, S., & Coma, V. (2005). Chitosan polymer as bioactive coating and film against *Aspergillus niger* contamination. *Journal of Food Science*, 70(2), 100–104.
- Sharma, R. R., Singh, D., & Singh, R. (2009). Biological control of postharvest diseases of fruits and vegetables by microbial antagonists: A review. *Biological Control*, 50, 205–221.
- Shu, X. Z., Zhu, K. J., & Song, W. (2001). Novel pH-sensitive citrate cross-linked chitosan film for drug controlled release. *International Journal of Pharmaceutics*, 212, 19–28.
- Siddiqui, Y., & Ali, A. (2014). *Colletotrichum gloeosporioides* (Anthracnose). In S. Bautista-Banos (Ed.), *Postharvest Decay* (pp. 337–371), London, UK: Academic Press.
- Sing, K. S. W., Everett, D. H., Haul, R. A. W., Moscou, L., Pierotti, R. A., Rouquérol, J., & Siemieniewska, T. (1985). Reporting physisorption data for gas/solid systems with special reference to the determination of surface area and porosity (IUPAC Recommendations 1984). *Pure & Applied Chemistry*, 57, 603–619.
- Sinha, A. K., Sharma, U. K., & Sharma, N. (2008). A comprehensive review on vanilla flavor: Extraction, isolation and quantification of vanillin and others constituents. *International Journal of Food Sciences and Nutrition*, 59(4), 299–326.
- Sivakumar, B., Kannan, C., & Karthikeyan, S. (2012). Preparation and characterization of activated carbon prepared from *Balsamodendron caudatum* wood waste through various activation processes. *Rasayan Journal of Chemistry*, 5(3), 321–327.
- Sivakumar, D., Jiang, Y., & Yahia, E. M. (2011). Maintaining mango (*Mangifera indica* L.) fruit quality during the export chain. *Food Research International*, 44, 1254–1263.
- Smith, J. P., Hoshino, J., & Abe, Y. (1995). Interactive packaging involving sachet technology. In M. L. Rooney (Ed.), *Active Food Packaging* (pp. 143 – 173). Dordrecht, Netherlands: Springer Science+Business Media.

- Srinivasa, P. C., Baskaran, R., Ramesh, M. N., Prashanth, K. V. H., & Tharanathan, R. N. (2002). Storage studies of mango packed using biodegradable chitosan film. *European Food Research and Technology*, 215(6), 504–508.
- Stoeckinger, (2004). Zeolite packed biologically active filter (Biofilter) to reduce odorous Emissions from a confined swine building. Oregon, USA: Oregon State University.
- Stroescu, M., Stoica-Guzun, A., & Jipa, I. M. (2013). Vanillin release from poly(vinyl alcohol)-bacterial cellulose mono and multilayer films. *Journal of Food Engineering*, 114, 153–157.
- Stuchell, Y.M., & Krochta, J. M. (1994). Enzymatic Treatments and thermal effects on edible soy protein films. *Journal of Food Science*, 59(6), 1332–1337.
- Sue-aok, N., Srithanratana, T., Rangriwatananon, K., & Hengrasmee, S. (2010). Study of ethylene adsorption on zeolite NaY modified with group I metal ions. *Applied Surface Science*, 256(12), 3997–4002.
- Suppakul, P., Sonneveld, K., Bigger, S. W., & Miltz, J. (2011). Diffusion of linalool and methylchavicol from polyethylene-based antimicrobial packaging films. *LWT - Food Science and Technology*, 44, 1888–1893.
- Suwapanich, R. (2006). Application of thermal properties to monitor chilling injury of mango fruit cv. Nam Dok Mai Si Thong (Doctoral dissertation). Chiang Mai, Thailand: Chiang Mai University.
- Suzuki, M., & Sakoda, A. (1982). Gas adsorption on activated carbons with size distribution of micropores. *Journal of Chemical Engineering of Japan*, 15(4), 279–285.
- Szostak, R. (1998). *Molecular sieves principles of synthesis and identification*. New York: Van Nostrand Reinholds.
- Talcott, S. T., Moore, J. P., Lounds-Singleton, A. J., & Percival, S. P. (2005). Ripening associated phytochemical changes in mangoes (*Mangifera indica*) following thermal quarantine and low temperature storage. *Journal of Food Science*, 70, 337–341.
- Terry, L., Meyere, M., Reay, N., Ilkenhans, T., Poulston S., Rowsell, L., & Smith, A. W. (2007). Suppression of avocado ripening with new palladium promoted ethylene

- scavenger. Proceedings VI World Avocado Congress, 2007, Vina del Mar, Chile, 12–16 Nov. 2007.
- Tharanathan, R. N., & Kittur, F. S. (2003). Chitin—the undisputed biomolecule of great potential. *Critical Reviews in Food Science and Nutrition*, *43*, 61–87.
- Tharanathan, R. N., Yashoda, H. M., & Prabha, T. N. (2006). Mango (*Mangifera indica* L.), “the king of fruits”—an overview. *Food Reviews International*, *22*, 95–123.
- Tong, Q., Xiao, Q., & Lim, L. -T. (2008). Preparation and properties of pullulan-alginate-carboxymethylcellulose blend film. *Food Research International*, *41*, 1007–1014.
- Tongdeesoontorn, W., Mauer, L. J., Wongruong, S., & Rachtanapun, P. (2009). Water vapour permeability and sorption isotherm of cassava starch based films blended with gelatin and carboxymethyl cellulose. *Asian Journal of Food and Agro-Industry*, *2*, 501–514.
- Ultee, A., Bennik, M. H. J., & Moezelaar, R. (2002). The phenolic hydroxyl group of carvacrol is essential for action against the food-borne pathogen *Bacillus cereus*. *Applied and Environmental Microbiology*, *68*, 1561–1568.
- US Department of Agriculture, Agricultural Research Service, Nutrient Data Laboratory. USDA National Nutrient Database for Standard Reference, Release 28 (Slightly revised). Version Current: May 2016. Internet: <http://www.ars.usda.gov/ba/bhnrc/ndl> (accessed 07 August 2016).
- Vásquez-Caicedo, A. L., Neidhart, S., Pathomrungsyounggul, P., Wiriyaacharee, P., Chattrakul, A., Sruamsiri, P., Manochai, P., Bangerth, F., & Carle, R. (2002). Physical, chemical and sensory properties of nine Thai mango cultivars and evaluation of their technological and nutritional potential. *International Symposium: Sustaining Food Security and Managing Natural Resources in Southeast Asia - Challenges for the 21st Century - January 8-11, 2002 at Chiang Mai, Thailand*. 1–13.
- Vartiainen, J., Motion, R., Kulonen, H., Rättö, M., Skyttä, E., & Ahvenainen, R. (2004). Chitosan-coated paper: Effects of nisin and different acids on the antimicrobial activity. *Journal of Applied Polymer Science*, *94*, 986–993.

- Vojdani, F., & Torres, J. A. (1990). Potassium sorbate permeability of methylcellulose and hydroxypropyl methylcellulose coatings: Effect of fatty acids. *Journal of Food Science*, 55(3), 841–846.
- Walton, N. J., Mayer, M. J., & Narbad, A. (2003). Vanillin. *Phytochemistry*, 63(5), 505–515.
- Wang, S., & Jing, Y. (2016). Effects of a chitosan coating layer on the surface properties and barrier properties of kraft paper. *BioResources*, 11(1), 1868–1881.
- Watada, A. E. (1986). Effects of ethylene on the quality of fruits and vegetables. *Food Technology*, 40, 82–84.
- Weichmann, J. (1987). Low oxygen effects. In J. Weichmann (Ed.), *Postharvest Physiology of Vegetables* (pp. 231–237). New York, NY; Marcel Dekker.
- Wendakoon, C. N., & Sakaguchi, M. (1995). Inhibition of amino acid decarboxylase activity of *Enterobacter aerogenes* by active components in spices. *Journal of Food Protection*, 58, 280–283.
- Wilhoit, D. L. (1996). Film and method for surface treatment of foodstuffs with antimicrobial compositions. US patent No.5,573,797.
- Wills, R., McGlasson, B., Graham, D., & Joyce, D. (1998). *Postharvest: An introduction to the physiology & handling of fruit, vegetables & ornamentals* (4th ed.). Oxford, UK: CAB International.
- Whorton, C. (1995). Factors influencing volatile release from encapsulation matrices. In S. J. Risch & G. A. Reineccius (Eds.), *Encapsulation and Controlled Release of Food Ingredients* (pp. 134–142). Washington, DC: American Chemical Society.
- Xie, W., Xu, P., & Liu, Q. (2001). Antioxidant activity of water-soluble chitosan derivatives. *Bioorganic & Medicinal Chemistry Letters*, 11, 1699–1701.
- Xu, W. T., Huang, K. L., Guo, F., Qu, W., Yang, J. J., Liang, Z. H., & Luo, Y. B. (2007). Postharvest grapefruit seed extract and chitosan treatments of table grapes to control *Botrytis cinerea*. *Postharvest Biology and Technology*, 46(1), 86–94.
- Yahia, E. M. (1998). Modified and controlled atmospheres for tropical fruits. *Horticultural Reviews*, 22, 123–183.

- Yaman, Ö., & Bayındırlı, L. (2002). Effects of an edible coating and cold storage on shelf-life and quality of cherries. *Lebensmittel-Wissenschaft & Technologie*, 35, 146–150.
- Yang, R. T. (2003). *Adsorbents: Fundamentals and applications*. Hoboken, NJ: John Wiley & Sons Inc.
- Yashoda, H. M., Prabha, T. N., & Tharanathan, R. N. (2006). Mango ripening: changes in cell wall constituents in relation to textural softening. *Journal of the Science of Food and Agriculture*, 86, 713–721.
- Yoshizawa, T., Shin-ya, Y., Hong, K. J., & Kajiuchi, T. (2005). pH and temperature-sensitive release behaviors from polyelectrolyte complex films composed of chitosan and PAOMA copolymer. *European Journal of Pharmaceutics and Biopharmaceutics*, 59, 307–313.
- Zapata, P. J., Guillén, F., Martínez-Romero, D., Castillo, S., Valero, D., & Serrano, M. (2008). Use of alginate or zein as edible coatings to delay postharvest ripening process and to maintain tomato (*Solanum lycopersicon* Mill) quality. *Journal of the Science of Food and Agriculture*, 88, 1287–1293.
- Zhang, M., Bacik, D. B., Roberts, C. B., & Zhao, D. (2013). Catalytic hydrodechlorination of trichloroethylene in water with supported CMC-stabilized palladium nanoparticles. *Water Research*, 47(11), 3706–3715.
- Zheng, X. L., Tian, S. P., Xu, Y., & Li, B. Q. (2005). Effects of exogenous oxalic acid on ripening and decay incidence in mango fruit during storage at controlled atmosphere. *Journal of Fruit Science*, 22, 351–355.
- Zheng, X. L., Tian, S., Gidley, M. J., Yue, H., & Li, B. (2007). Effects of exogenous oxalic acid on ripening and decay incidence in mango fruit during storage at room temperature. *Postharvest Biology and Technology*, 45, 281–284.
- Zivanovic, S., Chi, S., & Draughon, A. F. (2005). Antimicrobial activity of chitosan films enriched with essential oils. *Journal of Food Science*, 70(1), M45–M51.