

DAFTAR PUSTAKA

- Aelenei, N., Popa, M. I., Novac, O., Lisa, G., and Balaita, L., 2009, Tannic Acid Incorporation in Chitosan-Based Microparticles and In vitro Controlled Release, *J. Mater. Sci.: Mater. Med.*, 20(5), 1095–1102.
- Albu, M. G., Ghica, M. V., Giurginca, M., and Trandafir, V., 2009, Spectral Characteristics and Antioxidant Properties of Tannic Acid Immobilized on Collagen Drug-Delivery Systems, *Rev. Chim.*, 620(7), 666–672.
- Arrua, D., Strumia, M. C., and Nazareno, M. A., 2010, Immobilization of Caffeic Acid on A Polypropylene Film: Synthesis and Antioxidant Properties, *J. Agric. Food Chem.*, 58, 9228–9234.
- Barbosa-Pereira, L., Angulo, I., Lagarón, J. M., Paseiro-Losada, P., and Cruz, J. M., 2014, Development of New Active Packaging Films Containing Bioactive Nanocomposites, *Innov. Food Sci. Emerg. Technol.*, 26, 310–318.
- Bernabé, P., Peniche, C., Guaymas, C.U., Varadero, C., Kim, N. and Postal, A., 2005, Swelling Behavior of Chitosan/Pectin Polyelectrolyte Complex Membranes. Effect of Thermal Cross-linking, *Polym. Bull.*, 55, 367–375.
- Bigucci, F., Luppi, B., Cerchiara, T., Sorrenti, M., Bettinetti, G., Rodriguez, L. and Zecchi, V., 2008, Chitosan/Pectin Polyelectrolyte Complexes: Selection of Suitable Preparative Conditions for Colon-Specific Delivery of Vancomycin, *Eur. J. Pharm. Sci.*, 35, 435–441.
- Brandelero, R.P.H., Yamashita, F., Victória, M. and Grossmann, E., 2010, The Effect of Surfactant Tween 80 on the Hydrophilicity, Water Vapor Permeation, and the Mechanical Properties of Cassava Starch and Poly(Butylene Adipate-co-Terephthalate) (PBAT) Blend Films, *Carbohydr. Polym.*, 82(4), 1102–1109.
- Cerqueira, M.A., Souza, B.W.S., Teixeira, J.A., Vicente A.A., 2012, Effects of Interactions between the Constituents of Chitosan-Edible Films on Their Physical Properties, *Food Bioprocess Technol.*, 5: 3181-3192.
- Chen, P.H., Kuo, T.Y., Kuo, J.Y., Tseng, Y.P., Wang, D.M., Lai, J.Y. and Hsieh, H.J., 2010, Novel Chitosan-Pectin Composite Membranes with Enhanced Strength, Hydrophilicity and Controllable Disintegration, *Carbohydr. Polym.*, 82(4), 1236–1242.
- Coimbra, P., Ferreira, P., Sousa, H.C. D., Batista, P., Rodrigues, M.A., Correia, I.J. and Gil, M.H., 2011, Preparation and Chemical and Biological Characterization of a Pectin/Chitosan Polyelectrolyte Complex Scaffold for Possible Bone Tissue

- Engineering Applications, *Int. J. Biol. Macromol.*, 48, 112–118.
- Costa, P. and Lobo, J.M.S., 2001, Modeling and Comparison of Dissolution Profiles, *Eur. J. Pharm. Sci.*, 13, 123–133.
- Dicastillo, C. L. D., Ares P.A., Castro L., M.D.M., López V., J.M. and González R., M.V., 2013, Enhancing the Release of the Antioxidant Tocopherol from Polypropylene Films by Incorporating the Natural Plasticizers Lecithin, Olive Oil, or Sunflower Oil, *J. Agric. Food Chem.*, 61(48), 11848–11857.
- Dicastillo, C. L. D., Castro-lópez, M. M., López-vilariño, J. M., and González-rodríguez, M. V., 2013, Immobilization of Green Tea Extract on Polypropylene Films to Control the Antioxidant Activity in Food Packaging, *FRIN*, 53(1), 522–528.
- Dicastillo, C. L. D., Nerín, C., Alfaro, P., Catalá, R., Gavara, R. and Hernández-Muñoz, P., 2011, Development of New Antioxidant Active Packaging Films Based on Ethylene Vinyl Alcohol Copolymer (EVOH) and Green Tea Extract, *J. Agric. Food Chem.*, 59(14), 7832–7840.
- Evans, J. R., Lindsay, W. M., 2007, *An Introduction to Six Sigma and Process Improvement*, South-Western, 5 Shenton Way.
- Gülçin I., Huyut. Z., Elmastaş M., Aboul, E. H. Y., 2010, Radical Scavenging and Antioxidant Activity of Tannic Acid, *Arabian J. Chem.*, 43–53.
- Fama, L., Rojas, A., Goyanes, S., and Gerschen-son, L., 2005, Mechanical Properties of Tapioca–Starch Edible Films Containing Sorbates, *Food Sci. Technol.*, 38 (6), 631–639.
- Gargiulo, N., Attianese, I., Buonocore, G.G., Caputo, D., Lavorgna, M., Mensitieri, G. and Lavorgna, M., 2013, α -Tocopherol Release from Active Polymer Films Loaded with Functionalized SBA-15 Mesoporous Silica, *Microporous Mesoporous Mater.*, 167, 10–15.
- Gavara, R., 2014, Advances in Antioxidant Active Food Packaging, *Trends Food Sci. Technol.*, 35, 42–51.
- Ghaffari, A., Navaee, K., Oskoui, M., Bayati, K., and Rafiee-Tehrani, M., 2007, Preparation and Characterization of Free Mixed-Film of Pectin/Chitosan/Eudragit® RS Intended for Sigmoidal Drug Delivery, *Eur. J. Phar. Biopharm.*, 67(1), 175–186.
- Gómez-Estaca, J., Dicastillo, C. L. De, Hernández-Muñoz, P., Catalá, R. and Gavara, R., 2014, Advances in Antioxidant Active Food Packaging, *Trends Food Sci. Technol.*, 35(1), 42–51.

- Higuchi, T., 1963, Mechanism of Sustained-Action Medication, *J. Pharm. Sci.*, 52(12), 1145-1149.
- Jongjareonrak, A., Benjakul, S., Visessanguan, W. and Tanaka, M., 2008, Antioxidative Activity and Properties of Fish Skin Gelatin Films Incorporated with BHT and α -Tocopherol, *Food Hydrocoll.*, 22, 449–458.
- Joseph, C. S., Prashanth, K. V. H., Rastogi, N. K., Indiramma, A. R., Reddy, S. Y., and Raghavarao, K. S. M. S., 2011, Optimum Blend of Chitosan and Poly-(ϵ -caprolactone) for Fabrication of Films for Food Packaging Applications, *Food Bioprocess Technol.*, 4(7), 1179–1185.
- Korsmeyer, R.W., Gurnyy, R., Doelker, E., Buri, P. and Peppas, N.A., 1983, Mechanisms of Solute Release From Porous Hydrophilic Polymers, *Int. J. Pharm.*, 15, 25–35.
- Liu, M., Zhou, Y., Zhang, Y., Yu, C., and Cao, S., 2014, Physicochemical, Mechanical and Thermal Properties of Chitosan Films with and without Sorbitol, *Int. J. Biol. Macromol.*, 70, 340–346. Maqsood, S., and Benjakul, S., 2010, Preventive Effect of Tannic Acid in Combination with Modified Atmospheric Packaging on the Quality Losses of the Refrigerated Ground Beef, *Food Control.*, 21(9), 1282–1290.
- Maqsood, S., and Benjakul, S., 2010, Comparative Studies of Four Different Phenolic Compounds on In vitro Antioxidative Activity and the Preventive Effect on Lipid Oxidation of Fish Oil Emulsion and Fish Mince, *Food Chem.*, 119(1), 123–132.
- Marcos, B., Sárraga, C., Castellari, M., Kappen, F., Schennink, G. and Arnau, J., 2014, Development of Biodegradable Films with Antioxidant Properties Based on Polyesters Containing α -Tocopherol and Olive Leaf Extract for Food Packaging Applications, *Food Packag. Shelf Life*, 1(2), 140–150.
- Martínez-Camacho, A. P., Cortez-Rocha, M. O., Ezquerro-Brauer, J. M., Graciano-Verdugo, A. Z., Rodríguez-Félix, F., Castillo-Ortega, M. M., Plascencia-Jatomea, M., 2010, Chitosan Composite Films: Thermal, Structural, Mechanical and Antifungal properties, *Carbohydr. Polym.*, 82(2), 305–315.
- Mishra, K., Ojha, H. and Chaudhury, N.K., 2012, Estimation of Antiradical Properties of Antioxidants Using DPPH Assay: A Critical Review and Results, *Food Chem.*, 130(4), 1036–1043.
- Mondal, S., Paul, B., Kumar, V., Singh, D. K., and Chakravarty, J. K., 2015, Parametric Optimization for Leaching of Cobalt from Sukinda Ore of Lateritic Origin – A Taguchi approach, *Sep. Purif. Technol.*, 156, 827–834.

- Niki, E., 2010, Free Radical Biology and Medicine Assessment of Antioxidant Capacity in Vitro and in Vivo, *Free Radic. Biol. Med.*, 49(4), 503–515.
- Pyla, R., Kim, T. J., Silva, J. L., and Jung, Y. S., 2010, Enhanced Antimicrobial Activity of Starch–Based Film Impregnated with Thermally Processed Tannic Acid, A Strong Antioxidant, *Intl. J. Food Microbiol.*, 137(2–3), 154–160.
- Rodríguez–Núñez, J. R., Madera–Santana, T. J., Sánchez–Machado, D. I., López–Cervantes, J., and Soto, V. H., 2014, Chitosan/Hydrophilic Plasticizer–Based Films: Preparation, Physicochemical and Antimicrobial Properties, *J. Polym. Environ.*, 22(1), 41–51.
- Rubentheren, V., Ward, T. A., Chee, C. Y., and Tang, C. K., 2015, Processing and Analysis of Chitosan Nanocomposites Reinforced with Chitin Whiskers and Tannic Acid as A Crosslinker, *Carbohydr. Polym.*, 115, 379–87.
- Sahiner, N., Sagbas, S., and Aktas, N., 2015, Single Step Natural Poly(Tannic Acid) Particle Preparation as Multitalented Biomaterial, *Mater. Sci. Eng.*, 49, 824–34.
- Sanchez–Moreno, C., Larrauri, A. J., and Saura–Calixto, F., 1999, Free Radical Scavenging Capacity and Inhibition of Lipid Oxidation of Wines, Grape Juices and Related Polyphenolic Constituents – History, Production and Role in Disease Prevention, *Food Res. Intl.*, 32, 407–412.
- Schreiber, S. B., Bozell, J. J., Hayes, D. G., and Zivanovic, S., 2013, Introduction of Primary Antioxidant Activity to Chitosan for Application as a Multifunctional Food Packaging Material, *Food Hydrocoll.*, 33(2), 207–214.
- Souza, R.R. De, Carvalho, I.X. De, Trevisan, M.T.S., Ricardo, M.P.S., Feitosa, J.P.A. and Paula, R.C.M. De, 2009, Chitosan–Coated Pectin Beads : Characterization and In vitro Release of Mangiferin, *Food Hydrocoll.*, 23, 2278–2286.
- Suyatma, N. E., Tighzert, L., Copinet, A., and Coma, V., 2005, Effects of Hydrophilic Plasticizers on Mechanical , Thermal , and Surface Properties of Chitosan Films Effects of Hydrophilic Plasticizers on Mechanical , Thermal , and Surface Properties of Chitosan Films, *J. Agric. Food Chem.*, 53, 3950–3957.
- Torres–Arreola, W., Soto–Valedez, H., Peralta, E., Cardenas–Lopez, J. L., and Ezquerro–Brauer, J. M., 2007, Effect of a Low–Density Polyethylene Film Containing Butylated Hydroxytoluene on Lipid Oxidation and Protein Quality of Sierra Fish (*Scomberomorus sierra*) Muscle During Frozen Storage, *J. Agric. Food Chem.*, 55, 6140–6146.
- Tripathi, S., Mehrotra, G.K. and Dutta, P.K., 2010, Preparation and Physicochemical Evaluation of Chitosan/Poly(Vinyl Alcohol)/Pectin Ternary Film for Food–



Packaging Applications, *Carbohydr. Polym.*, 79(3), 711–716.

U.S. Code of Federal Regulations, 2006, Tannic acid. 21 CFR 184.1097, 492–493.

Van den Broek, L. A. M., Knoop, R. J. I., Kappen, F. H. J., Boeriu, C. G., 2015, Chitosan Films and Blends for Packaging Material, *Carbohydr. Polym.*, 116, 237–242.

Vimaladevi, S., Panda, S. K., Xavier, K.A. M., Bindu, J., 2015, Packaging Performance of Organic Acid Incorporated Chitosan Films on Dried Anchovy (*Stolephorus indicus*), *Carbohydr. Polym.*, 127, 189–194.

Yu, Shu-Huei., Hsieh, Haou-Ying., Pang, Jen-Chieh., Tang, Deh-Wei., Shih, Chwen-Ming., Tsai, Min-Lang., Tsai, Yi-Chin., Mi, Fwu-Long., 2013, Active Films from Water-Soluble Chitosan/Cellulose Composites Incorporating Releasable Caffeic Acid for Inhibition of Lipid Oxidation in Fish Oil Emulsions, *Food Hydrocoll.*, 32, 9–19.