

DAFTAR PUSTAKA

- Althaf, A.S., Seshadri, T., Sivakranth, M., and Khair, U.S., 2010, Design and study of lamivudine oral sustained release tablets, *Der Pharm. Sin.* **1**: 61–76.
- Araújo, M. De, Carine, G., Moraes, M. De, Queiroz, L., Jacob-lobes, E., Smanioto, Juliano., Raimundo, Carlos., Grosso, Ferreira., Ragagnin, Cristiano., and Menezes, De., 2016, Effect of resistant starch and chitosan on survival of *Lactobacillus acidophilus* microencapsulated with sodium alginate, *LWT- Food Sci. Technol.* **65**: 511–517.
- Balcerzak, J. and Mucha, M., 2010, Analysis of model drug release kinetics from complex matrices of polylactide-chitosan, *Prog. Chem. Appl. Chitin* **15**: 117–126.
- Bourtoom T., 2008, Plasticizer effect on the properties of biodegradable blend film from rice starch-chitosan, *J. Sci. Technol.* **30**: 149–165.
- Coimbra, P., Ferreira, P., Sousa, H.C.De, 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.
- Dash, S., Murthy, P.N., Nath, L., and Chowdhury, P., 2010, Kinetic modeling on drug release from controlled drug delivery systems, *Acta Pol. Pharm.* **67**: 217–23.
- Dicastillo, C.L. De, 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**: 522–528.
- Fakhuory, F., Martelli, S., Bertan, L., Yamashita, F., Mei, L., and Queiroz, F., 2012, Edible films made from blends of manioc starch and gelatin-influence of different types of plasticizer and different levels of macromolecules on their properties, *Food Sci. Technol.* **40**: 257–265.
- Farhath, S., Vijaya P.P., and Vimal M., 2013, Antioxidant activity of geraniol, geranial acetate, gingerol and eugenol, *Res. Pharm.* **3**: 1–6.
- Gargiulo, N., Attianese, I., Giuliana, 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, *Micropor. Mesopor. Mater.* **167**: 10–15.
- Gata, M.O., Oshi, M.H., Rano, S.U., and Ndo, T.E., 2000, Antioxidant activity of eugenol and related monomeric and dimeric compounds, *Chem. Pharm. Bull* **48**: 1467–1469.
- Gomez-Estaca, J., Gavara, R., Lopez-de-Dicastillo, C., Hernandez-Munoz, P., and Catala, R., 2014, Advances in antioxidant active food packaging, *Trends Food Sci. Technol.* **35**: 42–51.

- Hosseini, M., Razavi, S., and Mousavi, M., 2009, Antimicrobial, physical, and mechanical properties of chitosan-based films incorporated with thyme, clove, and cinnamon essential oils, *J. Food Process. Preserv.* **33**: 727–743.
- Khalil, A.A., Deraz, S.F., Elrahman, S.A., and Gomaa El-Fawal, 2015, Enhancement of mechanical properties, microstructure, and antimicrobial activities of zein films cross-linked using succinic anhydride, eugenol, and citric acid, *Prep. Biochem. Biotechnol.* **45**: 551–567.
- Lawrie, G., Keen, I., Drew, B., Chandler-temple, A., Rintoul, L., Fredericks, P., and Grøndahl, L., 2007, Interactions between alginate and chitosan biopolymers characterized using FTIR and XPS, *Biomacromolecules* **8**: 2533–2541.
- Li, J., Miao, J., Wu, J., Chen, S., and Zhang, Q., 2014, Preparation and characterization of active gelatin-based films incorporated with natural antioxidants, *Food Hydrocoll.* **37**: 166–173.
- Majid, I., Nayik, G.A., Dar, S.M., and Nanda, V., 2016, Novel food packaging technologies : Innovations and future prospective, *J. Saudi Soc. Agric. Sci.* **30**: 1–9.
- Martins, J., Cerqueira, and Vincente, A., 2012, Influence of a-tocopherol on physicochemical properties of chitosan-based films, *Food Hydrocoll.* **27**: 220–227.
- Molyneux, P., 2004, The use of the stable free radical diphenylpicryl- hydrazyl (DPPH) for estimating antioxidant activity, *Songklanakarinn J. Sci. Technol.*, **26**: 211-219.
- Nagababu, E., Rifkind, J.M., Sesikeran, B., and Lakshmaiah, N., 2011, *Methods Mol. Biol.* **610**: 165–180.
- Pavia, D.L., Lampiman G.M., Kriz, G.S. and Vyvyan, J.A., 2009, *Introduction to Spectroscopy Fourth Edition.*, Boston: Cengage learning.
- Peng, Y., Wu, Y., and Li, Y., 2013, Development of tea extracts and chitosan composite films for active packaging materials, *Int. J. Biol. Macromol.* **59**: 282–289.
- Ramos, M., Jiménez, A., Peltzer, M., and Garrigós, M.C., 2012, Characterization and antimicrobial activity studies of polypropylene films with carvacrol and thymol for active packaging, *J. Food Eng.* **109**: 513–519.
- Rreola, W.I.T.O., Aldez, H.E.S.O.T.O., Eralta, E.L.P., Pez, Ä., Arina, J.O.M., and Rauer, E.Z., 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.
- Rubilar, J.F., Cruz, R.M.S., Silva, H.D., Vicente, A.A., Khmelinskii, I., and Vieira, M.C., 2013, Physico-mechanical properties of chitosan films with carvacrol and

grape seed extract, *J. Food Eng.* **115**: 466–474.

Siripatrawan, U. and Harte, B.R., 2010, Physical properties and antioxidant activity of an active film from chitosan incorporated with green tea extract, *Food Hydrocoll.* **24**: 770–775.

Smitha, B., Sridhar, S., and Khan, A., 2005, Chitosan-sodium alginate polyion complexes as fuel cell membranes, *Eur. Polym. J.* **41**: 1859–1866.

Tongnuanchan, P., Benjakul, S., and Prodpran, T., 2013, Physico-chemical properties, morphology and antioxidant activity of film from fish skin gelatin incorporated with root essential oils, *J. Food Eng.* **117**: 350–360.

Woranuch, S. and Yoksan, R., 2013, Eugenol-loaded chitosan nanoparticles : II. Application in bio-based plastics for active packaging, *Carbohydr. Polym.* **96**: 586–592.

Yan, X., Khor, E., and Lim, L., 2000, PEC Films prepared from chitosan-alginate coacervates, *Chem. Pharm. Bull* **48**: 941–946.