

DAFTAR PUSTAKA

- Ayama, H., Sumpavapol, P., Chanthachum, S. 2014. Effect of encapsulation of selected probiotic cell on survival in simulated gastrointestinal tract condition. *Songklanakarin J. Sci. Technol*, 36(3): 291-299.
- Begley, M., Gahan, C. G., Hill. C. 2005. The interaction between bacteria and bile. *FEMS Microbiol*, 29: 625-651.
- Boza, Y., Barbin, D., Scamparini, A. 2004. Effect of spray-drying on the quality of encapsulated cells of *Beijerinckia* sp. *Process Biochem*, 39: 1275-1284.
- Capela, P., Hay, T.K.C., and Shah, N.P., 2006. Effect of cryoprotectants, prebiotics and microencapsulation on survival of probiotic organisms in yoghurt and freeze-dried yoghurt. *Food Reserach International*, 39, 203-211.
- Chandan, R. C., White, C. H., Kilara, A., Hui, Y. H. 2006. *Manufacturing Yogurt and Fermented Milks*. New Jersey: Blackwell Publishing. pp. 89-97.
- Chandramouli, V., Kailasapathy, K., Peiris, P., & Jones, M. (2004). An improved method of microencapsulation and its evaluation to protect *Lactobacillus* spp. in simulated gastric conditions. *Journal of Microbiology Methods*, 56(1), 27e35.
- Chávarri, M., Marañón, I., Ares, R., Ibanez, F. C., Marzo, F., & Villaran, M. 2010. Microencapsulation of a probiotic and prebiotic in alginate-chitosan capsules improves survival in simulated gastro-intestinal conditions. *International Journal of Food Microbiology*, 142, 185-189.
- Chávarri, M., Marañón, I., Villarán, M. C. 2012. Encapsulation technology to protect probiotic bacteria. *Immunology and Microbiology*, 23: 502-540.
- Dey, S. S and Dora, K. C. 2011. Suitability of chitosan as cryoprotectant on croaker fish (*Johnius gangeticus*) surimi during frozen storage. *J Food Sci Technol*. 48(6): 699–705.
- Ding, W. K. & Shah, N. P. 2008. Survival of free and microencapsulated probiotic bacteria in orange and apple juices. *International Food Research Journal*, 15(2): 219-232.
- Fernandes, R. 2009. *Microbiology Handbook: Dairy Products*. Leatherland: Leatherhead International Limited. pp. 77-81.
- Fox, P. F., Uniacke-Lowe, T., McSweeney, P. L. H., O'Mahoney, J. A. 2015. *Dairy Chemistry and Biochemistry*. New York: Springer. pp. 548-550.

- Guarner, F., Khan, A. G., Garisch, J., Eliakim, R., Gangl, A., Thomson, A., Krabshuis, J., Lemair, T. 2011. *Probiotics and Prebiotics*. Milwaukee: World Gastroenterology Organisation. pp. 3-11.
- Hasler, C. M., Brown, A. C., American Dietetic Association. 2009. Position of the American Dietetic Association: functional foods. *J Am Diet Assoc*, 109:735-746.
- Hofmann, A. F. 1994. "Bile acids," In *The Liver: Biology and Pathobiology*, eds I. RavenPressLtd, 677-718.
- Hui, Y. H. 2006. *Handbook of Food Science, Technology, and Engineering, Volume 3*. Florida: CRC Press. pp. 105-106.
- Hsieh, F. & Mustapha, A. 2015. Microencapsulation and Viability of a Probiotic in a Simulated Gastrointestinal Environment. Columbia: University of Missouri. pp 1-11.
- Krasaekoopt, W., Bhandari, B., Deeth, H., 2004. The influence of coating materials on some properties of alginate beads and survivability of microencapsulated probiotic bacteria. *Int. Dairy J.*, 14: 737-743.
- Kets, E.P.W., Teunissen, P.J.M., de Bont, J.A.M., 1996. Effect of compatible solutes on survival of lactic acid bacteria subjected to drying. *Appl. Environ. Microbiol.* 62, 259-291.
- Lee, H.W., Park, Y.S., Jung, J.S., and Shin, W.S., 2002. Chitosan oligosaccharides, dp 2-8, have prebiotic effect on the *Bifidobacterium bifidum* and *Lactobacillus* sp. *Anaerobe*, 8, 319-324.
- Lee, Y. K. & Salminen, S. 2009. *Handbook of Probiotics and Prebiotics*. New Jersey: John Wiley & Sons. pp. 52.
- Morais, A. R., Alencar, E. D., Junior, F. H., Oliveira, C. M., Marcelino, H. R., Barrat, G., Elaisari, A. 2016. Freeze-drying of emulsified systems: a review. *International Journal of Pharmaceutics*, 503(1-2): 102-114.
- Nazzaro, F., Fratianni, F., Coppola, R., Sada, A., and Orlando, P., 2009. Fermentative ability of alginate-prebiotic encapsulated *Lactobacillus acidophilus* and survival under simulated gastrointestinal conditions. *Journal of Functional Foods*, 1, 319-323.
- Parades-Juares, G. A., Spasojevic, M., Faas, M. M., Vos, P. 2014. Immunological and technical considerations in application of alginate-beads microencapsulation systems. *Frontiers in Bioengineering and Biotechnology*, 2(26): 1-15.

- Paul, C. 2006. *Use of Cryoprotectants, Prebiotics, and Microencapsulation of Bacterial Cells in Improving the Viability of Probiotic Organism in Freeze Dried Yoghurt*. Retrieved from Victoria University: <http://vuir.vu.edu.au/580/> (13 Oktober 2017).
- Pfeiler, E. A. & Klaenhammer, T. R. 2009. Role of transport proteins in bile tolerance of *Lactobacillus acidophilus*. *Appl. Environ. Microbiol*, 75: 6013-6016.
- Rastall, R. A. 2009. *Prebiotics and Probiotics Science and Technology*. New York: Springer Science & Business Media. pp. 807-826.
- Rege, D. V. & Sreenivan, A. 1953. *An Unidentified Growth Factor in the Nutrition of Lactobacillus casei*. University of Bombay: India. pp 680-685.
- Ren, J., Sun, K., Wu, Z., Yao, J., Guo, B. 2011. All 4 bile salt hydrolase proteins are responsible for the hydrolysis activity in *Lactobacillus plantarum* ST-III. *J Food Sci*, 76(9): M622-8.
- Rezvani, F., Ardestani, F., Najafpour, G. 2017. Growth kinetic models of five species of *Lactobacilli* and lactose consumption in batch submerged culture. *Brazilian Journal of Microbiology*, 48: 251-258.
- Ruiz, L., Margolles, A., Sanchez, B. 2013. Bile resistance mechanisms in *Lactobacillus* and *Bifidobacterium*. *Frontiers in Microbiology*, 4(396):1-8.
- Sanchez, B., Ruiz, L., Gueimonde, M., Ruas-Madiedo, P., Margolles, A. 2013. Adaptation of bifidobacterial to the gastrointestinal tract and functional consequences. *Pharmacological Research*, 69: 127-136.
- Shori, A. B. 2017. Microencapsulation improved probiotics survival during gastric transit. *Hayati Journal of Biosciences*, 24:1-5.
- Smith, J. & Charter, E. *Functional Food Product Development*. Oxford: John Wiley & Sons. pp 4-9.
- Solanki, H. K., Pawar, D. D., Shah, D. A., Prajapati, V. D., Jani, G. K., Mulla, A. M., Thakar, P. M. 2013. Development of microencapsulation delivery system for long-term preservation of probiotics as biotherapeutic agent. *BioMed Research International*, 2013: 1-21.
- Sultana, K., Godward, G., Reynolds, N., Arumugaswamy, R., Peris, P., and Kailasapathy, K., 2000. Encapsulation of probiotic bacteria with alginate-starch and evaluation of survival in simulated gastro-intestinal conditions and in yoghurt. *International Journal of Food Microbiology*, 62, 47-55.

- Tee, W. F., Nazaruddin, R., Tan, Y. N., Ayob, M. K. 2014. Effects of encapsulation on the viability of potential probiotic *Lactobacillus plantarum* exposed to high acidity condition and presence of bile salts. *Food Sci Technol Int*, 20(6): 399-404.
- University of California Davis. 2014. *Colony Forming Units/Dilution Plating*. Retrieved from University of California Davis: http://wineserver.ucdavis.edu/industry/enology/methods_and_techniques/techniques/colony_forming_units.html (13 Oktober 2017).
- Vos, P., Bucko, M., Gemeneir, P., Navratil, M., Svitel, J., Faas, M., Strand, B. L., Braek, G. S., Morch, Y. A., Virkatovska, A., Lacik, I., Kollarikova, G., Orive, G., Poncelet, D., Pedraz, J. L. & Schumacher, M. B. A. 2009. Multiscale requirements for bioencapsulation in medicine and biotechnology. *Biomaterials*. 30(13):2559-70.
- Vrese, M. & Schrezenmeir, J. 2008. *Pro-, Pre-, and Synbiotics and Health*. Karlsruhe: Max Rubner Institut. pp. 24-25.
- Watheley, T. L., 1996. *Microencapsulation of Drugs*. Switzerland: Hardwood Academics. pp 52.
- Wolkers, W. F. 2015. *Cryopreservation and Freeze-Drying Protocols*. Hatfield: Humana Press. pp 477-488.
- Xiong, Z., Wang, Q., Kong, L., Song, X., Wang, G., Xia, Y., Zhang, H., Sun, Y., Ai, L. 2016. Short communication: improving the activity of bile salt hydrolases in *Lactobacillus casei* based on in silico molecular docking and heterologous expression. *Journal of Dairy Science*, 2: 975-980.
- Xu, M., Gagne-Bourque, F., Dumont, M., Jabaji, S. 2016. Encapsulation of *Lactobacillus casei* ATCC 393 cells and evaluation of their survival after freeze-drying, storage, and under gastrointestinal conditions. *Journal of Food Engineering*, 168: 52-59.
- Yamada, K., Sato-Mito, N., Nagata, J., Umegaki, K. 2008. Health claim evidence requirements in Japan. *Journal of Nutrition*, 1192S-1108S.
- Yeung, T. W., Ucock, E. F., Tian, K. A., McClements, D. J., Sela, D. A. 2016. Microencapsulation in alginate and chitosan microgels to enhance viability of *Bifidobacterium longum* for oral delivery. *Front. Microbiol*, 7: 494.
- Younes, I. & Rinaudo, M. 2015. Chitin and chitosan preparation from marine sources, structures, properties, and applications. *Marine Drugs*, 13: 1133-1174.