

## DAFTAR PUSTAKA

- Abd El-Ghaffar, M. A., Hashem, M. S., El-Awady, M. K., & Rabie, A. M. (2012). PH-sensitive sodium alginate hydrogels for riboflavin controlled release. *Carbohydrate Polymers*, 89(2), 667–675.
- Ainsley Reid, A., Vuillemand, J. C., Britten, M., Arcand, Y., Farnworth, E., & Champagne, C. P. (2005). Microentrapment of probiotic bacteria in a Ca<sup>2+</sup>-induced whey protein gel and effects on their viability in a dynamic gastro-intestinal model. *Journal of Microencapsulation*, 22(6), 603–619.
- Arslan-Tontul, S., & Erbas, M. (2017). Single and double layered microencapsulation of probiotics by spray drying and spray chilling. *Lwt-Food Science and Technology*, 81, 160–169.
- Atia, A., Gomaa, A., Fliss, I., Beyssac, E., Garrait, G., & Subirade, M. (2016). A prebiotic matrix for encapsulation of probiotics: Physicochemical and microbiological study. *Journal of Microencapsulation*, 33(1), 89–101.
- Ayama, H., Sumpavapol, P., & Chanthachum, S. (2014). Effect of encapsulation of selected probiotic cell on survival in simulated gastrointestinal tract condition. *Songklanakarin Journal of Science and Technology*, 36(3), 291–299.
- Bajpai, S. K., & Sharma, S. (2004). Investigation of swelling/degradation behaviour of alginate beads crosslinked with Ca<sup>2+</sup> and Ba<sup>2+</sup> ions. *Reactive and Functional Polymers*, 59(2), 129–140.
- Baker-Austin, C., & Dopson, M. (2007). Life in acid: pH homeostasis in acidophiles. *Trends in Microbiology*, 15(4), 165–171.
- Begley, M., Hill, C., & Gahan, C. G. M. (2006). Bile salt hydrolase activity in probiotics. *Applied and Environmental Microbiology*, 72(3), 1729–1738.
- Bevilacqua, A., Campaniello, D., Speranza, B., Racioppo, A., Altieri, C., Sinigaglia, M., & Corbo, M. R. (2020). Microencapsulation of *Saccharomyces cerevisiae* into Alginate Beads: A Focus on Functional Properties of Released Cells. *Foods*, 9(8), 1051.
- Bhima, B., Marrivada, S. R., Devi, T. A., Reddy, Y. R., & Rao, L. V. (2010). Screening and characterization of stress tolerant *Saccharomyces cerevisiae* isolated from brewery effluents for animal probiotic applications. *IIOAB Journal*, 1(4), 32–39.
- Bilenler, T., Karabulut, I., & Candogan, K. (2017). Effects of encapsulated starter

- cultures on microbial and physicochemical properties of traditionally produced and heat treated sausages (sucuks). *LWT - Food Science and Technology*, 75, 425–433.
- Burgain, J., Gaiani, C., Cailliez-Grimal, C., Jeandel, C., & Scher, J. (2013). Encapsulation of *Lactobacillus rhamnosus* GG in microparticles: Influence of casein to whey protein ratio on bacterial survival during digestion. *Innovative Food Science and Emerging Technologies*, 19, 233–242.
- Călinescu, O., Paulino, C., Kühlbrandt, W., & Fendler, K. (2014). Keeping it simple, transport mechanism and pH regulation in Na<sup>+</sup>/H<sup>+</sup> exchangers. *Journal of Biological Chemistry*, 289(19), 13168–13176.
- Capela, P., Hay, T. K. C., & Shah, N. P. (2007). Effect of homogenisation on bead size and survival of encapsulated probiotic bacteria. *Food Research International*, 40(10), 1261–1269.
- Casalone, E., Barberio, C., Cappellini, L., & Polzinelli, M. (2005). Characterization of *Saccharomyces cerevisiae* natural populations for pseudohyphal growth and colony morphology. *Research in Microbiology*, 156(2), 191–200.
- Chan, E. S., Wong, S. L., Lee, P. P., Lee, J. S., Ti, T. B., Zhang, Z., Poncelet, D., Ravindra, P., Phan, S. H., & Yim, Z. H. (2011). Effects of starch filler on the physical properties of lyophilized calcium-alginate beads and the viability of encapsulated cells. *Carbohydrate Polymers*, 83(1), 225–232.
- Chandralekha, A., Tavanandi, A. H., Amrutha, N., Hebbar, H. U., Raghavarao, K. S. M. S., & Gadre, R. (2016). Encapsulation of yeast (*Saccharomyces cerevisiae*) by spray drying for extension of shelf life. *Drying Technology*, 34(11), 1307–1318.
- 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 Microbiological Methods*, 56(1), 27–35.
- Chávarri, M., Marañón, I., Ares, R., Ibáñez, F. C., Marzo, F., & Villarán, M. del C. (2010). Microencapsulation of a probiotic and prebiotic in alginate-chitosan capsules improves survival in simulated gastro-intestinal conditions. *International Journal of Food Microbiology*, 142(1–2), 185–189.
- Chelliah, R., Ramakrishnan, S. R., Prabhu, P. R., & Antony, U. (2016). Evaluation of antimicrobial activity and probiotic properties of wild-strain *Pichia kudriavzevii* isolated from frozen idli batter. *Yeast*, 33(8), 385–401.
- Chen, L. S., Ma, Y., Maubois, J. L., He, S. H., Chen, L. J., & Li, H. M. (2010). Screening for the potential probiotic yeast strains from raw milk to assimilate

- cholesterol. *Dairy Science and Technology*, 90(5), 537–548.
- Cook, M. T., Tzortzis, G., Charalampopoulos, D., & Khutoryanskiy, V. V. (2012). Microencapsulation of probiotics for gastrointestinal delivery. *Journal of Controlled Release*, 162(1), 56–67.
- Córdoba, A. L., Deladino, L., & Martino, M. (2014). Release of yerba mate antioxidants from corn starch-alginate capsules as affected by structure. *Carbohydrate Polymers*, 99, 150–157.
- Czerucka, D., Piche, T., & Rampal, P. (2007). Review article: Yeast as probiotics - *Saccharomyces boulardii*. *Alimentary Pharmacology and Therapeutics*, 26(6), 767–778.
- Dakhmouche, D., L, G., L, B., A, A.-K., K, L., T, N., & Z V, M. (2016). Amylolytic Yeasts: Producers of  $\alpha$ -amylase and Pullulanase. *International Journal of Life-Sciences Scientific Research*, 2(4).
- Davidovich-Pinhas, M., & Bianco-Peled, H. (2010). A quantitative analysis of alginate swelling. *Carbohydrate Polymers*, 79(4), 1020–1027.
- Davis, S. S., J G Hardy, & Fara, J. W. (2010). The transit of dosage forms through the small intestine. *International Journal of Pharmaceutics*, 395(1–2), 9–16.
- Díaz-Vergara, L., Pereyra, C. M., Montenegro, M., Pena, G. A., Aminahuel, C. A., & Cavaglieri, L. R. (2017). Encapsulated whey-native yeast *Kluyveromyces marxianus* as a feed additive for animal production. *Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment*, 34(5), 750–759.
- Diosma, G., Romanin, D. E., Rey-Burusco, M. F., Londero, A., & Garrote, G. L. (2014). Yeasts from kefir grains: Isolation, identification, and probiotic characterization. *World Journal of Microbiology and Biotechnology*, 30(1), 43–53.
- Donthidi, A. R., Tester, R. F., & Aidoo, K. E. (2010). Effect of lecithin and starch on alginate-encapsulated probiotic bacteria. *Journal of Microencapsulation*, 27(1), 67–77.
- Drageta, K. I., GåserØd, O., Aunea, I., Andersen, P. O., Storbakken, B., Stokke, B. T., & SmidsrØd, O. (2001). Effects of molecular weight and elastic segment flexibility on syneresis in Ca-alginate gels. *Food Hydrocolloids*, 15(4–6), 485–490.
- Duarte, J. C., Rodrigues, J. A. R., Moran, P. J. S., Valen  a, G. P., & Nunhez, J. R. (2013). Effect of immobilized cells in calcium alginate beads in alcoholic fermentation. *AMB Express*, 3, 1–8.

- Ernst, R., Klemm, R., Schmitt, L., & Kuchler, K. (2005). Yeast ATP-binding cassette transporters: Cellular cleaning pumps. *Methods in Enzymology*, 400(05), 460–484.
- FAO/WHO. (2006). Report of joint FAO/WHO expert consultation on evaluation of health and nutritional properties of probiotics in food including powder milk with live lactic acid bacteria.
- Fareez, I. M., Lim, S. M., Mishra, R. K., & Ramasamy, K. (2015). Chitosan coated alginate-xanthan gum bead enhanced pH and thermotolerance of *Lactobacillus plantarum* LAB12. *International Journal of Biological Macromolecules*, 72, 1419–1428.
- Feltre, G., Almeida, F. S., Sato, A. C. K., Dacanal, G. C., & Hubinger, M. D. (2020). Alginate and corn starch mixed gels: Effect of gelatinization and amylose content on the properties and in vitro digestibility. *Food Research International*, 132(December 2019), 109069.
- Figueroa-González, I., Quijano, G., Ramírez, G., & Cruz-Guerrero, A. (2011). Probiotics and prebiotics-perspectives and challenges. *Journal of the Science of Food and Agriculture*, 91(8), 1341–1348.
- Fuentes-Zaragoza, E., Sánchez-Zapata, E., Sendra, E., Sayas, E., Navarro, C., Fernández-López, J., & Pérez-Alvarez, J. A. (2011). Resistant starch as prebiotic: A review. *Starch/Stärke*, 63(7), 406–415.
- Gancedo, J. M. (2001). Control of pseudohyphae formation in *Saccharomyces cerevisiae*. *FEMS Microbiology Reviews*, 25(1), 107–123.
- Gbassi, G. K., & Vandamme, T. (2012). Probiotic encapsulation technology: From microencapsulation to release into the gut. *Pharmaceutics*, 4(1), 149–163.
- Gentile, Frank, T., Doherty, Edward, J., Rein, David, H., Shoichet, Molly, S., & Wim, Shelley, R. (1995). Reactive polymers Polymer science for macroencapsulation of cells for central nervous system transplantation. *Reactive Polymers*, 25, 207–227.
- Gerez, C. L., de Valdez, G. F., Gigante, M. L., & Grossio, C. R. F. (2012). Whey protein coating bead improves the survival of the probiotic *Lactobacillus rhamnosus* CRL 1505 to low pH. *Letters in Applied Microbiology*, 54(6), 552–556.
- Ghannoum, M., Ghannoum, A., Long, L., Pl, S., & Isham, N. (2019). BIOHM Probiotics Retain Viability in Low pH Environments Simulating the Digestive Environment Journal of Probiotics & Health. *Journal of Probiotics & Health*, 7(2), 1–4.

- Ghosh, K., & Mandal, S. (2015). Nutritional evaluation of groundnut oil cake in formulated diets for rohu, *Labeo rohita* (Hamilton) fingerlings after solid state fermentation with a tannase producing yeast, *Pichia kudriavzevii* (GU939629) isolated from fish gut. *Aquaculture Reports*, 2, 82–90.
- Gouin, S. (2004). Microencapsulation: Industrial appraisal of existing technologies and trends. *Trends in Food Science and Technology*, 15(7–8), 330–347.
- Gow, N. A. R. (1995). Yeast-hyphal dimorphism. In *The growing fungus* (pp. 403–422). Springer, Dordrecht.
- Graff, S., Hussain, S., Chaumeil, J. C., & Charrueau, C. (2008). Increased intestinal delivery of viable *Saccharomyces boulardii* by encapsulation in microspheres. *Pharmaceutical Research*, 25(6), 1290–1296.
- Haile, M., & Kang, W. H. (2019). Isolation, identification, and characterization of pectinolytic yeasts for starter culture in coffee fermentation. *Microorganisms*, 7(10).
- Hansen, L. T., Allan-Wojtas, P. M., Jin, Y. L., & Paulson, A. T. (2002). Survival of Ca-alginate microencapsulated *Bifidobacterium* spp. in milk and simulated gastrointestinal conditions. *Food Microbiology*, 19(1), 35–45.
- Haralampu, S. G. (2000). Resistant starch - a review of the physical properties and biological impact of RS3. *Carbohydrate Polymers*, 41(3), 285–292.
- Hébrard, G., Hoffart, V., Beyssac, E., Cardot, J. M., Alric, M., & Subirade, M. (2010). Coated whey protein/alginate microparticles as oral controlled delivery systems for probiotic yeast. *Journal of Microencapsulation*, 27(4), 292–302.
- Helmy, E. A., Soliman, S. A., Abdel-Ghany, T. M., & Ganash, M. (2019). Evaluation of potentially probiotic attributes of certain dairy yeast isolated from buffalo sweetened Karish cheese. *Heliyon*, 5(5), e01649.
- Herawati, H. (2016). Potensi Pengembangan Produk Pati Tahan Cerna sebagai Pangan Fungsional. *Jurnal Penelitian Dan Pengembangan Pertanian*, 30(1), 31–39.
- Hernández-Gómez, J. G., López-Bonilla, A., Trejo-Tapia, G., Ávila-Reyes, S. V., Jiménez-Aparicio, A. R., & Hernández-Sánchez, H. (2021). In vitro bile salt hydrolase (Bsh) activity screening of different probiotic microorganisms. *Foods*, 10(3), 1–10.
- Hong, S. M., Kwon, H. J., Park, S. J., Seong, W. J., Kim, I., & Kim, J. H. (2018). Genomic and probiotic characterization of SJP-SNU strain of *Pichia kudriavzevii*. *AMB Express*, 8(1).

- Horáčková, Š., Žaludová, K., & Plocková, M. (2011). Stability of selected lactobacilli in the conditions simulating those in the gastrointestinal tract. *Czech Journal of Food Sciences*, 29(Special Issue), S30–S35.
- Horáčková, Šárka, Plocková, M., & Demnerová, K. (2018). Importance of microbial defence systems to bile salts and mechanisms of serum cholesterol reduction. *Biotechnology Advances*, 36(3), 682–690.
- Hu, C., Lu, W., Mata, A., Nishinari, K., & Fang, Y. (2021). Ions-induced gelation of alginic acid: Mechanisms and applications. *International Journal of Biological Macromolecules*, 177, 578–588.
- Huang, X., Xiao, Y., & Lang, M. (2012). Micelles/sodium-alginate composite gel beads: A new matrix for oral drug delivery of indomethacin. *Carbohydrate Polymers*, 87(1), 790–798.
- Islam, K. B. M. S., Fukiya, S., Hagio, M., Fujii, N., Ishizuka, S., Ooka, T., Ogura, Y., Hayashi, T., & Yokota, A. (2011). Bile acid is a host factor that regulates the composition of the cecal microbiota in rats. *Gastroenterology*, 141(5), 1773–1781.
- Iyer, C., & Kailasapathy, K. (2005). Effect of co-encapsulation of probiotics with prebiotics on increasing the viability of encapsulated bacteria under in vitro acidic and bile salt conditions and in yogurt. *Journal of Food Science*, 70(1), 1–6.
- Jacobs, H., & Delcour, J. A. (1998). Hydrothermal Modifications of Granular Starch, with Retention of the Granular Structure: A Review. *Journal of Agricultural and Food Chemistry*, 46(8).
- Jantarathin, S., Borompichaichartkul, C., & Sanguandekul, R. (2017). Microencapsulation of probiotic and prebiotic in alginate-chitosan capsules and its effect on viability under heat process in shrimp feeding. *Materials Today: Proceedings*, 4(5), 6166–6172.
- Krasaekoopt, W., Bhandari, B., & Deeth, H. (2003). Evaluation of encapsulation techniques of probiotics for yoghurt. *International Dairy Journal*, 13(1), 3–13.
- Kumar, S., Bhanjana, G., Sharma, A., Sidhu, M. C., & Dilbaghi, N. (2014). Synthesis, characterization and on field evaluation of pesticide loaded sodium alginate nanoparticles. *Carbohydrate Polymers*, 101(1), 1061–1067.
- Kumura, H., Tanoue, Y., Tsukahara, M., Tanaka, T., & Shimazaki, K. (2004). Screening of dairy yeast strains for probiotic applications. *Journal of Dairy Science*, 87(12), 4050–4056.
- Kurdi, P., Kawanishi, K., Mizutani, K., & Yokota, A. (2006). Mechanism of

- growth inhibition by free bile acids in *Lactobacilli* and *Bifidobacteria*. *Journal of Bacteriology*, 188(5), 1979–1986.
- Kurtzman, C. P., Fell, J. W., Boekhout, T., & Robert, V. (2011). Methods for isolation, phenotypic characterization and maintenance of yeasts. In *The Yeasts* (Vol. 1).
- Lara-Hidalgo, Ce, Hernández, Sánchez, H., Rodríguez, Dorantes-, & Álvarez. (2017). Yeasts in Fermented Foods and their Probiotic Potential. *Austin J Nutr Metab. Austin J Nutr Metab*, 4(4), 1045–1.
- Lee, B. B., Ravindra, P., & Chan, E. S. (2013). Size and shape of calcium alginate beads produced by extrusion dripping. *Chemical Engineering and Technology*, 36(10), 1627–1642.
- Leong, J. Y., Lam, W. H., Ho, K. W., Voo, W. P., Lee, M. F. X., Lim, H. P., Lim, S. L., Tey, B. T., Poncelet, D., & Chan, E. S. (2016). Advances in fabricating spherical alginate hydrogels with controlled particle designs by ionotropic gelation as encapsulation systems. *Particuology*, 24, 44–60.
- Liliana, S. C., & Vladimir, V. C. (2013). Probiotic encapsulation. *African Journal of Microbiology Research*, 7(40), 4743–4753.
- Liu, L. M., Li, Y., Du, G. C., & Chen, J. (2006). Increasing glycolytic flux in *Torulopsis glabrata* by redirecting ATP production from oxidative phosphorylation to substrate-level phosphorylation. *Journal of Applied Microbiology*, 100(5), 1043–1053.
- Lohith, K., & Appaiah, K. A. A. (2014). *in Vitro Probiotic Characterization of Yeasts of Food and Environmental Origin*. 9(3), 2014.
- Lunn, J., & Buttriss, J. L. (2007). Carbohydrates and dietary fibre. *Nutrition Bulletin*, 32(1), 21–64.
- M. Adisa, A., O. T. Ifesan, B., Enujiughwa, V. N., & B. Adepeju, A. (2020). Microbiological and Probiotic Assessment of Yeast Isolated from Wholegrain Millet Sourdoughs. *Journal of Advances in Microbiology*, 20(1), 1–10.
- Mahmoud, M., Abdallah, N. A., El-Shafei, K., Tawfik, N. F., & El-Sayed, H. S. (2020). Survivability of alginate-microencapsulated *Lactobacillus plantarum* during storage, simulated food processing and gastrointestinal conditions. *Heliyon*, 6(3).
- Maldonado-Valderrama, J., Wilde, P., MacIerzanka, A., & MacKie, A. (2011). The role of bile salts in digestion. *Advances in Colloid and Interface Science*, 165(1), 36–46.

- Mandal, S., Puniya, A. K., & Singh, K. (2006). Effect of alginate concentrations on survival of microencapsulated *Lactobacillus casei* NCDC-298. *International Dairy Journal*, 16(10), 1190–1195.
- Mandal, Surajit, Hati, S., Puniya, A. K., Khamrui, K., & Singh, K. (2014). Enhancement of survival of alginate-encapsulated *Lactobacillus casei* NCDC 298. *Journal of the Science of Food and Agriculture*, 94(10), 1994–2001.
- Marham, H. D., Rustam, Y., & Sukmawati, D. (2017). Uji Kemampuan Antagonisme Khamir Asal Daun Jati (*Tectona grandis*) Terhadap Kapang Pengkontaminan Pada Pakan Ternak Ayam. *Bioma*, 12(2), 118.
- Martin, M. J., Lara-Villoslada, F., Ruiz, M. A., & Morales, M. E. (2013). Effect of unmodified starch on viability of alginate-encapsulated *Lactobacillus fermentum* CECT5716. *LWT - Food Science and Technology*, 53(2), 480–486.
- Martínez-Muñoz, G. A., & Kane, P. (2008). Vacuolar and plasma membrane proton pumps collaborate to achieve cytosolic pH homeostasis in yeast. *Journal of Biological Chemistry*, 283(29), 20309–20319.
- Mendes-Ferreira, A., Barbosa, C., Lage, P., & Mendes-Faia, A. (2011). The impact of nitrogen on yeast fermentation and wine quality. *Ciencia e Tecnica Vitivinicola*, 26(1), 17–32.
- Miskiyah, M., Juniarwati, J., & Widaningrum, W. (2020). Optimasi Pati-Alginat sebagai Bahan Pengkapsul Bakteri Probiotik terhadap Karakteristik Beads. *Jurnal Aplikasi Teknologi Pangan*, 9(1), 24.
- Mokarram, R. R., Mortazavi, S. A., Najafi, M. B. H., & Shahidi, F. (2009). The influence of multi stage alginate coating on survivability of potential probiotic bacteria in simulated gastric and intestinal juice. *Food Research International*, 42(8), 1040–1045.
- Moon, S. H., Chang, M., Kim, H. Y., & Chang, H. C. (2014). *Pichia kudriavzevii* is the major yeast involved in film-formation, off-odor production, and texture-softening in over-ripened Kimchi. *Food Science and Biotechnology*, 23(2), 489–497.
- Muthukumarasamy, P., Allan-Wojtas, P., & Holley, R. A. (2006). Stability of *Lactobacillus reuteri* in different types of microcapsules. *Journal of Food Science*, 71(1), 20–24.
- Nag, A., Han, K. S., & Singh, H. (2011). Microencapsulation of probiotic bacteria using pH-induced gelation of sodium caseinate and gellan gum. *International Dairy Journal*, 21(4), 247–253.
- Nayak, A. K., Malakar, J., Pal, D., Hasnain, M. S., & Beg, S. (2018). Soluble

- starch-blended Ca<sup>2+</sup>-Zn<sup>2+</sup>-alginate composites-based microparticles of aceclofenac: Formulation development and in vitro characterization. *Future Journal of Pharmaceutical Sciences*, 4(1), 63–70.
- Nazzaro, F., Fratianni, F., Coppola, R., Sada, A., & Orlando, P. (2009). Fermentative ability of alginate-prebiotic encapsulated *Lactobacillus acidophilus* and survival under simulated gastrointestinal conditions. *Journal of Functional Foods*, 1(3), 319–323.
- Neha, A., Kamaljit, S., Ajay, B., & Tarun, G. (2012). Probiotic: As Effective Treatment of Diseases. *International Research Journal of Pharmacy*, 3(1), 96–101.
- Noriega, L., Gueimonde, M., Sánchez, B., Margolles, A., & De Los Reyes-Gavilán, C. G. (2004). Effect of the adaptation to high bile salts concentrations on glycosidic activity, survival at low PH and cross-resistance to bile salts in *Bifidobacterium*. *International Journal of Food Microbiology*, 94(1), 79–86.
- Nugent, A. P. (2005). Health properties of resistant starch. *Nutrition Bulletin*, 30(1), 27–54.
- Ogunremi, O. R., Sanni, A. I., & Agrawal, R. (2015). Probiotic potentials of yeasts isolated from some cereal-based Nigerian traditional fermented food products. *Journal of Applied Microbiology*, 119(3), 797–808.
- Ortiz, D. F., St. Pierre, M. V., Abdulmessih, A., & Arias, I. M. (1997). A yeast ATP-binding cassette-type protein mediating ATP-dependent bile acid transport. *Journal of Biological Chemistry*, 272(24), 15358–15365.
- Pankasesuk, T., Apichartsrangkoon, A., Worametrachanon, S., & Techarang, J. (2016). Encapsulation of *Lactobacillus casei* 01 by alginate along with himaize starch for exposure to a simulated gut model. *Food Bioscience*, 16, 32–36.
- Pennacchia, C., Blaiotta, G., Pepe, O., & Villani, F. (2008). Isolation of *Saccharomyces cerevisiae* strains from different food matrices and their preliminary selection for a potential use as probiotics. *Journal of Applied Microbiology*, 105(6), 1919–1928.
- Pinpimai, K., Rodkhum, C., Chansue, N., Katagiri, T., Maita, M., & Pirarat, N. (2015). The study on the candidate probiotic properties of encapsulated yeast, *Saccharomyces cerevisiae* JCM 7255, in Nile Tilapia (*Oreochromis niloticus*). *Research in Veterinary Science*, 102, 103–111.
- Piper, P. W. (2011). Resistance of Yeasts to Weak Organic Acid Food Preservatives. In *Advances in Applied Microbiology* (1st ed., Vol. 77). Elsevier Inc.

- Poncelet, D., Davarci, F., Sayad, M., Guessasma, S., Oniris, Nantes, & France. (2011). HOW TO OBSERVE A DRIPPING PROCESS ? *Handbook of Encapsulation and Controlled Release*, September, 201–224.
- Ragavan, M. L., & Das, N. (2018). Process optimization for microencapsulation of probiotic yeasts. *Frontiers in Biology*, 13(3), 197–207.
- Rao, A. V., Shiwnarain, N., & Maharaj, I. (1989). Survival of Microencapsulated *Bifidobacterium pseudolongum* in Simulated Gastric and Intestinal Juices. *Canadian Institute of Food Science and Technology Journal*, 22(4), 345–349.
- Ratnaningtyas, N. I., Andarwanti, S., Ekowati, N., Purwanti, E. S., & Sukmawati, D. (2018). Effects of Ganoderma lucidum Extract on Diabetic Rats. *Biosaintifika*, 10(3), 642–647.
- Riaz, Q. U. A., & Masud, T. (2013). Recent Trends and Applications of Encapsulating Materials for Probiotic Stability. *Critical Reviews in Food Science and Nutrition*, 53(3), 231–244.
- Rokka, S., & Rantamäki, P. (2010). Protecting probiotic bacteria by microencapsulation: Challenges for industrial applications. *European Food Research and Technology*, 231(1), 1–12.
- Ruiz, L., Margolles, A., & Sánchez, B. (2013). Bile resistance mechanisms in *Lactobacillus* and *Bifidobacterium*. *Frontiers in Microbiology*, 4(DEC), 1–8.
- Saier, M. H., & Mansour, N. M. (2006). Probiotics and prebiotics in human health. *Journal of Molecular Microbiology and Biotechnology*, 10(1), 22–25.
- Salminen, S., Nybom, S., Meriluoto, J., Collado, M. C., Vesterlund, S., & El-nezami, H. (2010). Interaction of probiotics and pathogens — benefits to human health ? *Current Opinion in Biotechnology*, 21(2), 157–167.
- Samedi, L., & Charles, A. L. (2019). Viability of 4 probiotic bacteria microencapsulated with arrowroot starch in the simulated gastrointestinal tract (GIT) and yoghurt. *Foods*, 8(5).
- Sanna, M. L., Zara, S., Zara, G., Micheli, Q., Budroni, M., & Mannazzu, I. (2012). *Pichia fermentans* dimorphic changes depend on the nitrogen source. *Fungal biology*, 116(7), 769-777.
- Sathyabama, S., Ranjith kumar, M., Bruntha devi, P., Vijayabharathi, R., & Brindha priyadharisini, V. (2014). Co-encapsulation of probiotics with prebiotics on alginate matrix and its effect on viability in simulated gastric environment. *LWT - Food Science and Technology*, 57(1), 419–425.
- Seifert, D. B., & Phillips, J. A. (1997). Production of small, monodispersed

- alginate beads for cell immobilization. *Biotechnology Progress*, 13(5), 562–568.
- Sharif, M. R., Kashani, H. H., Ardakani, A. T., Kheirkhah, D., Tabatabaei, F., & Sharif, A. (2016). The Effect of a Yeast Probiotic on Acute Diarrhea in Children. *Probiotics and Antimicrobial Proteins*, 8(4), 211–214.
- Singh, B., Sharma, D. K., & Gupta, A. (2009). A study towards release dynamics of thiram fungicide from starch-alginate beads to control environmental and health hazards. *Journal of Hazardous Materials*, 161(1), 208–216.
- Sorokulova, I. (2008). Preclinical testing in the development of probiotics: A regulatory perspective with *Bacillus* strains as an example. *Clinical Infectious Diseases*, 46(SUPPL. 2).
- Straccia, M. C., Romano, I., Oliva, A., Santagata, G., & Laurienzo, P. (2014). Crosslinker effects on functional properties of alginate/N-succinylchitosan based hydrogels. *Carbohydrate Polymers*, 108(1), 321–330.
- Sujka, M., & Jamroz, J. (2007). Starch granule porosity and its changes by means of amylolysis. *International Agrophysics*, 21(1), 107–113.
- Sultana, K., Godward, G., Reynolds, N., Arumugaswamy, R., Peiris, P., & Kailasapathy, K. (2000). Encapsulation of probiotic bacteria with alginate-starch and evaluation of survival in simulated gastrointestinal conditions and in yoghurt. *International Journal of Food Microbiology*, 62(1–2), 47–55.
- Sumanti, D. M., Lanti, I., Hanidah, I.-I., Sukarminah, E., & Giovanni, A. (2016). Pengaruh Konsentrasi Susu Skim dan Maltodekstrin Sebagai Penyalut Terhadap Viabilitas dan Karakteristik Mikroenkapsulasi Suspensi Bakteri *Lactobacillus plantarum* menggunakan metode freeze drying. *Jurnal Penelitian Pangan (Indonesian Journal of Food Research)*, 1(1), 7–13.
- Suvarna, S., Dsouza, J., Ragavan, M. L., & Das, N. (2018). Potential probiotic characterization and effect of encapsulation of probiotic yeast strains on survival in simulated gastrointestinal tract condition. *Food Science and Biotechnology*, 27(3), 745–753.
- Thompson, D. B. (2000). Strategies for the manufacture of resistant starch. *Trends in Food Science and Technology*, 11(7), 245–253.
- Trabelsi, I., Bejar, W., Ayadi, D., Chouayekh, H., Kammoun, R., Bejar, S., & Ben Salah, R. (2013). Encapsulation in alginate and alginate coated-chitosan improved the survival of newly probiotic in oxgall and gastric juice. *International Journal of Biological Macromolecules*, 61, 36–42.
- Ullah, F., Othman, M. B. H., Javed, F., Ahmad, Z., & Akil, H. M. (2015). Classification, processing and application of hydrogels: A review. *Materials*

- Science and Engineering C*, 57, 414–433.
- Urbanova, M., Pavelkova, M., Czernek, J., Kubova, K., Vyslouzil, J., Pechova, A., Molinkova, D., Vyslouzil, J., Vetchy, D., & Brus, J. (2019). Interaction Pathways and Structure-Chemical Transformations of Alginate Gels in Physiological Environments. *Biomacromolecules*, 20(11), 4158–4170.
- Valero-Cases, E., & Frutos, M. J. (2015). Effect of different types of encapsulation on the survival of *Lactobacillus plantarum* during storage with inulin and in vitro digestion. *LWT - Food Science and Technology*, 64(2), 824–828.
- Velings, N. M., & Mestdagh, M. M. (1995). Physico-chemical properties of alginate gel beads. *Polymer Gels and Networks*, 3(3), 311-330.
- Wang, S., Wu, T., Cui, W., Liu, M., Wu, Y., Zhao, C., Zheng, M., Xu, X., & Liu, J. (2020). Structure and in vitro digestibility on complex of corn starch with soy isoflavone. *Food Science and Nutrition*, 8(11), 6061–6068.
- Wartmann, T., Krüger, A., Adler, K., Duc, B. M., Kunze, I., & Kunze, G. (1995). Temperature-dependent dimorphism of the yeast *Arxula adeninivorans* LS3. *Antonie van Leeuwenhoek*, 68(3), 215-223.
- Wu, C., Zhang, J., Wang, M., Du, G., & Chen, J. (2012). *Lactobacillus casei* combats acid stress by maintaining cell membrane functionality. *Journal of Industrial Microbiology and Biotechnology*, 39(7), 1031–1039.
- Wu, Z., He, Y., Chen, L., Han, Y., & Li, C. (2014). Characterization of *Raoultella planticola* RS-2 microcapsule prepared with a blend of alginate and starch and its release behavior. *Carbohydrate Polymers*, 110, 259–267.
- Yang, Y., Kadim, M. I., Khoo, W. J., Zheng, Q., Setyawati, M. I., Shin, Y. J., Lee, S. C., & Yuk, H. G. (2014). Membrane lipid composition and stress/virulence related gene expression of *Salmonella Enteritidis* cells adapted to lactic acid and trisodium phosphate and their resistance to lethal heat and acid stress. *International Journal of Food Microbiology*, 191, 24–31.
- Yao, N., Paez, A. V., & White, P. J. (2009). Structure and function of starch and resistant starch from corn with different doses of mutant amylose-extender and floury-1 alleles. *Journal of Agricultural and Food Chemistry*, 57(5), 2040–2048.
- Yuangsard, N., Yongmanitchai, W., Yamada, M., & Limtong, S. (2013). Selection and characterization of a newly isolated thermotolerant *Pichia kudriavzevii* strain for ethanol production at high temperature from cassava starch hydrolysate. *Antonie van Leeuwenhoek, International Journal of General and Molecular Microbiology*, 103(3), 577–588.

Zaragoza, O., & Gancedo, J. M. (2000). *Pseudohyphal growth is induced in Saccharomyces cerevisiae by a combination of stress and cAMP signalling.* 1–8.

Zhou, J., Liu, L., Shi, Z., Du, G., & Chen, J. (2009). ATP in current biotechnology: Regulation, applications and perspectives. *Biotechnology Advances*, 27(1), 94–101.

Zuidam, N. J., & Nedović, V. A. (2010). Encapsulation technologies for active food ingredients and food processing. In *Encapsulation Technologies for Active Food Ingredients and Food Processing*.

