

## DAFTAR PUSTAKA

- Akbardiansyah, Desniar, & Uju. (2018). Karakteristik Ikan Asin Kambing-Kambing (*Canthidermis maculata*) dengan Penggaraman Kering. Jurnal Pengolahan Hasil Perikanan Indonesia, 21(2), 345–355.
- Alimentarius, C. (2005). Codex Standard for Salted Fish and Dried Salted Fish. 1989(i), 1–10.
- Amir, N., Suprayitno, E., Hardoko, & Nursyam, H. (2014). Cypermethrin Residues on Jambal Roti Product of Giant Catfish (*Arius thalassinus* Rupell). International Journal of ChemTech Research, 6(11), 4789–4795.
- Anihouvi, V B, Kindossi, J. M., & Hounhouigan, J. D. (2012). Processing and Quality Characteristics of Some Major Fermented Fish Products from Africa: A Critical Review. International Research Journal of Biological Sciences, 1(7), 72–84.
- Anonim. (2019). Laporan-Riskesdas 2018 Kementerian Kesehatan Republik Indonesia. Kementerian Kesehatan RI, 1(1), 1. <https://www.kemkes.go.id/article/view/19093000001/penyakit-jantung-penyebab-kematian-terbanyak-ke-2-di-indonesia.html>
- Anonim. (2020). Kementerian Kelautan Dan Perikanan Tahun 2020-2024. Laporan Tahunan KKP, 1–59.
- Association of Official Analytical Chemist. (1990). Official Methods of Analysis. AOAC international.
- Axelsson, L. (1998). Lactic Acid Bacteria : Classification and Physicology (W. A. Seppo Salminen (ed.)). Marcel Dekker.
- Azka, A., Wening, R. P., Efri, H. N., & Sada, H. K. (2019). Pengaruh perbedaan konsentrasi garam terhadap komposisi proksimat ikan biang (*Ilisha elongata*) asin kering. Aurelia Journall, 1(1), 24–29.
- Baehaki, A., & Budiman, A. (2011). Isolation and Characterization of Proteases from Indralaya Soil Swamp Bacteria , South Sumatera. Jurnal Teknologi Dan Industri Pangan , 22(1), 1–6.
- Bakhiet, H. H. A., & Khogalie, F. A. E. (2013). Effect Of Different Salt Concentration On Total Bacterial Count And Heavy Metal Composition Of The Fish *Hydrocynus* spp . Online Journal of Animal and Feed Research, 3(2), 87–90.
- Barry, A., & Kolstad, J. (1983). Proteolytic Systems in Lactic Acid Bacteria. Antonie van Leeuwenhoek, 49, 225–245.

- Bhuyan, B. J., & Mugesh, G. (2012). Antioxidant activity of peptide-based angiotensin converting enzyme inhibitors. *Organic & Biomolecular Chemistry*, 10(11), 2237. <https://doi.org/10.1039/c2ob06533a>
- Budiharjo, R., Sarjono, P. R., & Asy'ari, M. (2017). Pengaruh Konsentrasi NaCl Terhadap Aktivitas Spesifik Protease Ekstraseluler dan Pertumbuhan Bakteri Halofilik Isolat Bittern Tambak Garam Madura. *Jurnal Kimia Sains Dan Aplikasi*, 20(3), 142–145. <https://doi.org/10.14710/jksa.20.3.142-145>
- Cai, Y., Kumai, S., Ogawa, M., Benno, Y., & Nakase, T. (1999). Characterization and identification of *Pediococcus* species isolated from forage crops and their application for silage preparation. *Applied and Environmental Microbiology*, 65(7), 2901–2906. <https://doi.org/10.1128/aem.65.7.2901-2906.1999>
- Chalid, S. R. I. Y., Nurbayti, S., & Pratama, A. F. (2018). Karakterisasi dan Uji Aktivitas Protein Susu Kerbau (*Bubalus bubalis*) Fermentasi sebagai *Angiotension Converting Enzyme* (ACE) Inhibitor. *Jurnal Ilmu Kefarmasian Indonesia*, 16(2), 214–224.
- Church, F. C., Porter, D. H., Catignani, G. L., & Swaiscodd, H. E. (1985). An o-Phthalaldehyde Spectrophotometric Assay For Proteinases '. *Journal Dairy Science*, 348, 343–348.
- Cushman, D., & Cheung, H. (1971). Spectrophotometric Assay And Properties Of The Angiotensin Converting Enzyme Of Rabbit Lung. *Biochem Pharmacol*, 29, 1637,1648.
- de Giori, G. S., de Valdez, G. F., de Ruiz Holgado, A. P., & Oliver, G. (1985). Effect of pH and Temperature on the Proteolytic Activity of Lactic Acid Bacteria. *Journal of Dairy Science*, 68(9), 2160–2164. [https://doi.org/10.3168/jds.S0022-0302\(85\)81085-7](https://doi.org/10.3168/jds.S0022-0302(85)81085-7)
- De Vuyst, L., & Leroy, F. (2007). Bacteriocins from lactic acid bacteria: Production, purification, and food applications. *Journal of Molecular Microbiology and Biotechnology*, 13(4), 194–199. <https://doi.org/10.1159/000104752>
- Dharmayanti, N. I. (2011). Filogenetika Molekular: Metode Taksonomi Organisme Berdasarkan Sejarah Evolusi. *Wartazoa* 21(1). 1–10. <http://medpub.litbang.pertanian.go.id/index.php/wartazoa/article/view/948>
- Suliman, A. M., Abd Elgadir, H. O., & Elkhailifa, E. A. (2012). Chemical and Microbiological Characteristics of Fermented Milk Product, Mish. *International Journal of Food Science and Nutrition Engineering*, 1(1), 1–4. <https://doi.org/10.5923/j.food.20110101.01>
- Essuman, K.M. (1992). Fermented Fish in Africa. *Food and Agriculture*

## Organization of The United Nation.

- Ezeama, C., & Udoh, E. (2012). Effects of fermentation and salting on the bacterial, chemical and sensory characteristics of Tilapia (*Chromidotilapia guentheri*) based marinate in Nigeria. American Journal of Food and Nutrition, 2(1), 7–13. <https://doi.org/10.5251/ajfn.2012.2.1.7.13>
- Fadda, S., Vildoza, M. J., & Vignolo, G. (2010). Hydrolysis During Meat Fermentation. Journal of Muscle Foods, 21(ext 116), 545–556.
- Fajriani, B., Budiharjo, A., & Pujiyanto, S. (2018). Isolasi dan Identifikasi Molekuler Bakteri Antagonis Terhadap *Vibrio Parahaemolyticus* Patogen Pada Udang *Litopenaeus Vannamei* dari Produk Probiotik dan Sedimen Mangrove di Rembang. Jurnal Biologi, 7(1), 52–63.
- Fall, N. G., Tounkara, L. S., Diop, M. B., Mbasse, A., & Thonart, P. (2017). Chemical Characteristics and Microbial Quality of Guedj a Traditional Fermented Fish from Senegal. International Journal or Science. 6(06). 48-54 <https://doi.org/10.18483/ijSci.1323>
- Fatimah, F., Pelealu, J. J., Gugule, S., Yempormase, H. V., & Tallei, T. E. (2017). Quality evaluation of bakasang processed with variation of salt concentration, temperature and fermentation time. Pakistan Journal of Biological Sciences, 20(11), 543–551. <https://doi.org/10.3923/pjbs.2017.543.551>
- Fernandes R. (2009). Microbiology Handbook Fish and Seafood. Leatherhead Publishing.
- Förster, A. H., & Gescher, J. (2014). Metabolic engineering of Escherichia coli for production of mixed-acid fermentation end products. Frontiers in Bioengineering and Biotechnology. 2. 1–12. <https://doi.org/10.3389/fbioe.2014.00016>
- Fujita, H., & Yoshikawa, M. (1999). LKPNM: A prodrug-type ACE-inhibitory peptide derived from fish protein. Immunopharmacology, 44(1–2), 123–127. [https://doi.org/10.1016/S0162-3109\(99\)00118-6](https://doi.org/10.1016/S0162-3109(99)00118-6)
- Hwanhlem, N., Buradaleng, S., Wattanachant, S., & Benjakul, S. (2011). Isolation and screening of lactic acid bacteria from Thai traditional fermented fish (Plasom) and production of Plasom from selected strains. Food Control. 22. (401-407. <https://doi.org/10.1016/j.foodcont.2010.09.010>
- Indriati, N., Setiawan, I. D., & Yulneriwarni. (2006). Potensi Antibakterial Bakteri Asam Laktat dari Peda, Jambal Roti dan Bekasam. Jurnal Perikanan . 7(2), 153–159. <https://doi.org/10.1002/asia.201300328>
- Irianto, H. E. (2012). Produk Fermentasi Ikan. Jakarta. Penebar Swadaya.

- Itou, K., & Akahane, Y. (2004). Antihypertensive effect of heshiko , a fermented mackerel product , on spontaneously hypertensive rats. *Fisheries Science*, 70, 1121–1129.
- Je, J. Y., Park, J. Y., Jung, W. K., Park, P. J., & Kim, S. K. (2005a). Isolation of angiotensin I converting enzyme (ACE) inhibitor from fermented oyster sauce, *Crassostrea gigas*. *Food Chemistry*, 90(4), 809–814. <https://doi.org/10.1016/j.foodchem.2004.05.028>
- Je, J. Y., Park, P. J., Byun, H. G., Jung, W. K., & Kim, S. K. (2005b). Angiotensin I converting enzyme (ACE) inhibitory peptide derived from the sauce of fermented blue mussel, *Mytilus edulis*. *Bioresource Technology*, 96(14), 1624–1629. <https://doi.org/10.1016/j.biortech.2005.01.001>
- Jini R, Swapna HC, Amit Kumar Rai, Vrinda R, Halami PM, Sachindra NM, B. N. (2011). Isolation and Characteriation of Potential Lactic Acid Bacteria (LAB) from Freshwater Fish Processing Wastes For Application in Fermentative Utilisation of Fish Processing Waste. *Brazilian Journal of Microbiology*, 42, 1516–1525.
- Jung, J. Y., Lee, H. J., Chun, B. H., & Jeon, C. O. (2016). Effects of Temperature on Bacterial Communities and Metabolites during Fermentation of Myeolchi-Aekjeot , a Traditional Korean Fermented Anchovy Sauce. *PLoS ONE*, 1–20. <https://doi.org/10.1371/journal.pone.0151351>
- Kakati, B. K., & Goswami, U. C. (2013). Characterization of the traditional fermented fish product Shidol of Northeast India prepared from *Puntius sophore* and *Setipinna phasa*. *Indian Journal of Thailand Knoeledge*. 12(1), 85–90.
- Kamukuru, A. T., & Tamatamah, R. A. (2015). The Distribution , Biological Characteristics and Vulnerability of the Giant Sea Catfish , *Arius thalassinus* ( Rüppell , 1837 ), to Fishing at Mafia Island , Tanzania. *Western Indian Ocean Journal Marine Science*, 13(2), 163–175.
- Kandler, O. (1983). Carbohydrate metabolism in lactic acid bacteria. *Antonie van Leeuwenhoek*, 49, 209–224.
- Karparvar, N., Safaei, H. G., & Derakhshandeh, A. (2019). Isolation and Identification of Lactic Acid Bacteria from a Traditional Fermented Fish Sauce ( Mahyaveh ) in Fars. *International Journal of Nutrition Sciences*, 4(1), 49–53.
- Khirzin, M. H., Yuliana, N. D., Fawzya, Y. N., & Chasanah, E. (2015a). Aktivitas Inhibitor Enzim Pengubah Angiotensin (ACE) dan Antioksidan Peptida Kolagen dari Teripang Gama (*Stichopus variegatus*). *Jurnal Pascapanen dan Bioteknologi Kelautan Dan Perikanan*, 10(1), 27–35.

- Kim, H.-J., Kang, S.-G., Jaiswal, L., Li, J., Choi, J.-H., Moon, S.-M., Cho, J.-Y., & Ham, K.-S. (2016). Identification of four new angiotensin I-converting enzyme inhibitory peptides from fermented anchovy sauce. *Applied Biological Chemistry*, 59(1), 25–31. <https://doi.org/10.1007/s13765-015-0129-4>
- Kim, H.R., Seo, H. J., Byun, D. S., & Pyeun, J.-H. (2002). Proteolytic Enzymes from Fish and Their Utilization. *Fisheries Science*, 1557–1562.
- Kitts, D. D., & Weiler, K. (2003). Bioactive Proteins and Peptides from Food Sources . Applications of Bioprocesses used in Isolation and Recovery. *Current Pharmaceutical Design*, 9, 1309–1323.
- Kopermsub, P., & Yunchalard, S. (2010). Identification of lactic acid bacteria associated with the production of pla-som, a traditional fermented fish product of Thailand. *International Journal of Food Microbiology*, 138(3), 200–204. <https://doi.org/10.1016/j.ijfoodmicro.2010.01.024>
- Kowalczy, M., Mayo, B., Fernández, M., & Aleksandrak-Piekarczyk, T. (2010). Biotechnology of lactic acid bacteria: Novel applications: Second edition. 1–374. <https://doi.org/10.1002/9781118868386>
- Kunji, E. R. S., Mierau, I., Hagfing, A., Poolman, B., & Konings, W. N. (1996). The Proteolytic systems of lactic acid bacteria. *Antonie van Leeuwenhoek* 70: 187-221, 1996., 70, 187–221. <https://doi.org/10.1007/s00253-006-0427-1>
- Law, B. A., & Kolstad, J. (1983). Proteolytics Systems in Lactic Acid Bacteria. *Antonie van Leeuwenhoek*, 49, 240.
- Lawalata, H. J., Sembiring, L., & Rahayu, E. S. (2011). Molecular Identification of Lactic Acid Bacteria Producing Antimicrobial Agents from Bakasang , An Indonesian Traditional Fermented Fish Product. 93–99.
- Lawalata, H. J., & Satiman, U. (2015). Identification of lactic acid bacteria proteolytic isolated from an Indonesian traditional fermented fish sauce bakasang by amplified ribosomal DNA restriction analysis (ARDRA). *International Journal of Chemical Technology Research*, 8(12), 630–636.
- Lestari, S. D., Herpandi, & Simamora, G. R. R. (2017). Effects of different *Pediococcus halophilus* level and fermentation time on chemical properties of fermented anchovy paste “terasi ikan.” IOP Conference Series: Materials Science and Engineering, 193(1). <https://doi.org/10.1088/1757-899X/193/1/012004>
- Madikandarajan T, Eswar A, Anbarasu R, & Ramamorrthy K, S. G. (2015). Proximate , Amino Acid , Fatty Acid , Vitamins and Mineral analysis of Catfish , *Arius maculatus* and *Plotosus lineatus* from Parangipettai South East

Coast of India. Journal of Enviromental Science, Toxicology and Food Technology, 8(4), 1–9. <https://doi.org/10.9790/2402-08513240>

Maeno, M., Yamamoto, N., & Takano, T. (1996). Identification of an Antihypertensive Peptide from Casein Hydrolysate Produced by a Proteinase from *Lactobacillus helveticus* CP790. Journal of Dairy Science, 79(8), 1316–1321. [https://doi.org/10.3168/jds.S0022-0302\(96\)76487-1](https://doi.org/10.3168/jds.S0022-0302(96)76487-1)

Mahmoodani, F., Ghassem, M., Babji, A. S., Yusop, S. M., & Khosrokhavar, R. (2014). ACE inhibitory activity of pangasius catfish (*Pangasius sutchi*) skin and bone gelatin hydrolysate. Journal of Food Science and Technology, 51(9), 1847–1856. <https://doi.org/10.1007/s13197-012-0742-8>

Mahulette, F., Suwanto, A., Widanarni, & Mubarik, N. R. (2018). Microbiological and Physicochemical Characteristics of Inasua Traditional Fish Fermented from Maluku Islands. Biosaintifika, 10(2), 298–305.

Matti, A., Utami, T., Hidayat, C., & Rahayu, E. S. (2019). Isolation , Screening , and Identification of Proteolytic Lactic Acid Bacteria from Indigenous Chao Product Bacteria from Indigenous Chao Product. Journal of Aquatic Food Product Technology, 28(7), 781–793. <https://doi.org/10.1080/10498850.2019.1639872>

Matti, A., Utami, T., Hidayat, C., & Rahayu, E. S. (2021). Fermentasi Chao Ikan Tembang (*Sardinella gibbosa*) Menggunakan Bakteri Asam Laktat Proteolitik. AgriTECH, 41(1), 34. <https://doi.org/10.22146/agritech.56155>

Maulid, D., & Abrian. (2020). Kandungan Garam Dan Komposisi Proksimat Ikan Asin Jambal Roti ( *Arius thalassinus* ) Dari Pangandaran. Marine and Fisheries Science Technology Journal, 1(1), 1–6.

Miyashita, M., Yukphan, P., Chaipitakchonlatarn, W., Malimas, T., Sugimoto, M., Yoshino, M., Kamakura, Y., Potachoen, W., Tanasupawat, S., Tanaka, N., Nakagawa, Y., & Suzuki, K. (2017). *Lactobacillus plajomi* sp.nov. and *Lactobacillus modestisalitolersans* sp.nov., isolated from traditional fermented foods. International Journal of Systematics and Evalutionary Microbiology, 2015, 2485–2490. <https://doi.org/10.1099/ij.s.0.000290>

Molina, I., & Toldra, F. (1992). Detection of Proteolytic Activity in Microorganisms Isolated from Dry-Cured Ham. Journal of Food Science, 57(6), 1308–1310. <https://doi.org/10.1111/j.1365-2621.1992.tb06843.x>

Moulay, M., Aggad, H., Benmechernene, Z., Guessas, B., Henni, D. E., & Kihal, M. (2006). Cultivable Lactic Acid Bacteria Isolated from Algerian Raw Goat ' s Milk and Their Proteolytic Activity. World Journal of Diary & Food Sciences, 1(1), 12–18.

Mueda, R. T. (2015). Physico-chemical and color characteristics of saltfermented



fish sauce from anchovy *stolephorus commersonii*. Aquaculture, Aquarium, Conservation & Legislation International Journal of the Bioflux Society, 8(4), 565–572.

- Nigatu, A., Ahrne, S., Gashe, B. A., & Molin, G. (1998). Randomly amplified polymorphic DNA ( RAPD ) for discrimination of *Pediococcus pentosaceus* and *Pediococcus acidilactici* and rapid grouping of *Pediococcus* isolates. Letters in Applied Microbiology, 26, 412–416.
- Nofiani, R., Elminah, E., & Ardiningsih, P. (2019). Chemical And Microbiological Properties Of Buduk , A Commercial Fish Sauce From West Kalimantan dari Kalimantan Barat. Pengolahan Hasil Perikanan Indonesia. 22 (3), 601–608.
- Nuraida, L. (2015). A review : Health promoting lactic acid bacteria in traditional Indonesian fermented foods. Food Science and Human Wellness. 4, 47–55.
- Nurfarhana Ahmad Puat, S., Huda, N., Nadiah Wan Abdullah, W., & Fadhl Mubarek Al-Karkhi, A. (1994). Chemical Composition and Protein Quality of Fish Sauces (Kecap Ikan and Nampla). Asia Pacific Journal of Sustainable Agriculture Food and Energy, 3(2), 2–9. <http://journal.bakrie.ac.id/index.php/APJSAFE>
- Okamoto, A., Hanagata, H., Matsumoto, E., Kawamura, Y., Koizumi, Y., & Yanagida, F. (1995). Angiotensin I Converting Enzyme Inhibitory Activities of Various Fermented Foods. Bioscience, Biotechnology, And Biochemistry, 59(6), 1147–1149. <https://doi.org/10.1271/bbb.59.1147>
- Osman, O. A., Sulieman, A. M. E., Elkhaila, E. A., & Mustafa, W. A. (2012). Chemical and Microbiological Characteristics of Fermented Fish Product , Fassiekh. Food and Public Health, 2(6), 213–218. <https://doi.org/10.5923/j.fph.20120206.05>
- Phadke, G., Elavarasan, K., & Shamasundar, B. A. (2014). Angiotensin-I Converting Enzyme (ACE) Inhibitory Activity And Antioxidant Activity Of Fermented Fish Product Ngari As Influenced By Fermentation Period. International Journal of Pharma and Bio Sciences, 5(2). 134-142.
- Pramono, H., Suciati, P., Putra, T. F., Andika, N., & Utari, S. (2018). Reduction of Pathogenic Bacteria During Fermentation of Masin By Protease and Bacteriocin-Producing Lactic Acid Bacteria. Aquasains, 7(1), 629. <https://doi.org/10.23960/aqs.v7i1.p629-636>
- Prihanto, A. A., Darius, & Firdaus, M. (2013). Proteolytic And Fibrinolytic Activities Of Halophilic Lactic Acid Bacteria From Two Indonesian Fermented Foods. Journal of Microbiology, Biotechnology and Food Sciences, 2(5), 2291–2293.

- Purwandhani, S. N., Utami, T., & Rahayu, E. S. (2018). Isolation , characterization and screening of folate-producing bacteria from traditional fermented food ( dadih ) Isolation , characterization and screening of folate-producing bacteria from traditional fermented food ( dadih ). *International Food Research Journal*, 25(2), 566–572.
- Rahayu, E. S. (2003). Lactic acid bacteria in fermented foods of Indonesian Origin. *AgriTECH*, 23(2), 75–84.
- Rahayu, E. S., & Margino S. (1997). Materi workshop :Bakteri Asam Laktat,Isolasi dan Identifikasi. Yogyakarta. UGM
- Rahmani, Yunianta, & Martati, E. (2007). Pengaruh Metode Penggaraman Basah terhadap karakteristik Produk Ikan Asin Gabus (*Ophiocephalus striatus*). *Jurnal Teknologi Pertanian*, 8(3), 142–152.
- Rinto. (2010). Perubahan kandungan mikroflora akibat penambahan starter *Pediococcus acidilactici* F11 dan Garam Selama Fermentasi Peda. *Jurnal Pengolahan Hasil Perikanan Indoensia*, 13, 35–47.
- Rochima, E. (2005). Pengaruh fermentasi garam terhadap karakteristik jambal roti. *Buletin Hasil Perikanan*. 7, 46–56.
- Rusdah, R., Suhartono, M. T., Palupi, N. S., & Ogawa, M. (2017). Tingkat Kelarutan Peptida Tempe dengan Bobot Molekul Kecil pada Berbagai Jenis Pelarut. *AgriTECH*, 37(3), 327–333.
- Saanin. (1984). Taksonomi dan Kunci Identifikasi Ikan (1 dan 2). Bina Cipta. Jakarta
- Sainnoin, R., Mauboy, R., & Ati, V. (2019). Pengaruh Kadar NaCl Terhadap Kadar Lemak Beberapa Jenis Ikan Asin Yang Dijual Di Pasar Oeba Dan Pasar Oesapa Kota Kupang. *Journal Biotropical Sains*, 16(1), 78–92.
- Sanni, A. I., Asiedu, M., & Ayernor, G. S. (2002). Microflora and Chemical Composition of Momoni , a Ghanaian Fermented Fish Condiment. *Journal of Food Composition and Analysis*, 15, 577–583. <https://doi.org/10.1006/jfca.2002.1063>
- Savijoki, K., Ingmer, H., & Varmanen, P. (2006). Proteolytic systems of lactic acid bacteria. *Applied Microbiology and Biotechnology*, 71(4), 394–406. <https://doi.org/10.1007/s00253-006-0427-1>
- Siddegowda, G. S., Bhaskar, N., & Gopal, S. (2017). Fermentative Properties of Proteolytic *Pediococcus* Strains Isolated from Salt Fermented Fish Hydrolysate Prepared Using Freshwater Fish Rohu (*Labeo rohita*). *Journal of Aquatic Food Product Technology*, 26(3), 341–355. <https://doi.org/10.1080/10498850.2016.1185754>



- Siswanto, Y., Widyawati, S. A., Wijaya, A. A., Salfana, B. D., & Karlina, K. (2020). Hipertensi pada Remaja di Kabupaten Semarang. *Jurnal Penelitian Dan Pengembangan Kesehatan Masyarakat Indonesia*, 1(1), 11–17. <https://doi.org/10.15294/jppkmi.v1i1.41433>
- Smith, G., Hole, M., & Hanson, S. W. (1990). Assessment of lipid oxidation in indonesian salted-dried marine catfish (*Arius thalassinus*). *Journal of the Science of Food and Agriculture*, 51(2), 193–205. <https://doi.org/10.1002/jsfa.2740510207>
- Spigaglia, P., & Mastrantonio, P. (2003). Evaluation of repetitive element sequence-based PCR as a molecular typing method for *Clostridium difficile*. *Journal of Clinical Microbiology*, 41(6), 2454–2457. <https://doi.org/10.1128/JCM.41.6.2454-2457.2003>
- Sriphochanart, W., & Skolpap, W. (2010). Characterization of Proteolytic effect of lactic acid bacteria starter cultures on thai fermented sausages. *Food Biotechnology*, 24(4), 293–311. <https://doi.org/10.1080/08905436.2010.507163>
- Stanton, C. (2011). Bioactive Peptides from Muscle Sources : Meat and Fish. *Nutrient*, 3, 765-791. <https://doi.org/10.3390/nu3090765>
- Suharna. (2006). Kajian sistem manajemen mutu pada pengolahan “ikan jambal roti” di Pangandaran - Kabupaten Ciamis. *Thesis*. Semarang : Universitas Diponegoro.
- Suhartatik, N., Cahyanto, M. N., Rahardjo, S., Miyashita, M., & Rahayu, E. S. (2014). Isolation and identification of lactic acid bacteria producing  $\beta$  glucosidase from Indonesian fermented foods. *International Food Research Journal*, 21(3), 973–978.
- Sulistiana, & Handayani, R. (2018). Application Biopreservatives Produced by Lactic Acid Bacteria ( LAB ) for Preservation Boiled-Salted ( Pindang ) Tuna ( *Euthynnus affinis* Cantor , 1849 ). Inventing Prosperous Future through Biological Research and Tropical Biodiversity Management, AIP Conference Proceeding. <https://doi.org/10.1063/1.5050156>
- Syahrudin, H. (2013). Pengaruh penggaraman terhadap protein ikan layang. *Calyptra: Jurnal Ilmiah Mahasiswa Universitas Surabaya*, 2(1), 1–11.
- Tanasupawat, S., Namwong, S., Kudo, T., & Itoh, T. (2009). Identification Of Halophilic Bacteria From Fish Sauce. *Journal of Culture Collections*, 6, 69–75.
- Taylor, P., Lopetcharat, K., Choi, Y. J., & Park, J. W. (2001). Fish Sauce Products And Manufacturing : A Review *Food Review International*, 17(1), 65–88.

- Thariq, A., Swastawati, F., & Surti, T. (2014). Pengaruh Perbedaan Konsentrasi Garam pada Ped Ikan Kembung (*Rastrelliger neglectus*) Terhadap kandungan Kandungan Asam Glutamat Pemberi rasa Gurih (Umami). Jurnal Pengolahan Dan Bioteknologi Hasil Perikanan, 3(3), 40–46.
- Toe, C. J., Foo, H. L., Loh, T. C., Mohamad, R., Rahim, R. A., & Idrus, Z. (2019a). Extracellular Proteolytic Activity And Amino Acid Production By Lactic Acid Bacteria Isolated From Malaysian Foods. International Journal of Molecular Sciences. 20(7). <https://doi.org/10.3390/ijms20071777>
- Toha, A. H. A. (2001). Biokimia : Metabolisme Biomelokul. Bandung. Alfabeta.
- Toledano, A., Jordano, R., Ló Pez, C., & Medina, L. M. (2011). Proteolytic Activity Of Lactic Acid Bacteria Strains And Fungal Biota For Potential Use As Starter Cultures In Dry-Cured Ham. Journal of Food Protection, 74(5), 826–829. <https://doi.org/10.4315/0362-028X.JFP-10-471>
- Topisirovic, L., Strahinic, I., Kojic, M., Tolinacki, M., & Fira, D. (2010). The presence of prtP proteinase gene in natural isolate *Lactobacillus plantarum* BGSJ3-18. Letters in Applied Microbiology, 50(1), 43–49. <https://doi.org/10.1111/j.1472-765X.2009.02748.x>
- Udomsil, N., Rodtong, S., Tanasupawat, S., & Yongsawatdigul, J. (2010). International Journal of Food Microbiology Proteinase-producing halophilic lactic acid bacteria isolated from fish sauce fermentation and their ability to produce volatile compounds. International Journal of Food Microbiology, 141, 186–194. <https://doi.org/10.1016/j.ijfoodmicro.2010.05.016>
- Wikandari, P. R., Marsono, Y., Rahayu, E. S., (2012a). Potensi Bakteri Asam Laktat yang Diisolasi dari Bekasam Penghasil Angiotensi Converting Enzym Inhibitor Pada Fermentasi Bekasam-like Product. AgriTECH. 32(3), 258–264.
- Wikandari, P. R., Marsono, Y., & Rahayu, S. (2012b). Karakterisasi Bakteri Asam Laktat Proteolitik pada Bekasam. Jurnal Natur Indonesia. 14(2), 120–125.
- Wikandari, P. R., & Yuanita, L. (2014). Potensi Bekasam Yang Difermentasi Dengan *Lactobacillus Plantarum* B1765 Dalam Menurunkan Tekanan Darah Tikus Hipertensi .Proseding Seminar Nasional Kimia, Jurusan Kimia FMIPA Universitas Negeri Surabaya. 20 September 2014, 287–291.
- Wikandari, P. R., & Yuanita, L. (2016). Angiotensin Converting Enzyme Inhibitor Bekasam Dengan *Lactobacillus plantarum* B1765. AgriTECH, 36(2), 170–175.
- Xu, Y., Xia, W., Yang, F., & Nie, X. (2010). Physical and chemical changes of silver carp sausages during fermentation with *Pediococcus pentosaceus*. Food Chemistry, 122(3), 633–637.

<https://doi.org/10.1016/j.foodchem.2010.03.023>

- Yam, B., Khomeri, M., Amirkhani, S., & Sabagh, M. (2015). Microbial Quality of Salted Dried Fish Sold Near Caspian Sea, Iran. *Basic Research Journal of Microbiology*, 2(4), 61–65.
- Yang, F., Rustad, T., Xu, Y., Jiang, Q., & Xia, W. (2015). Endogenous proteolytic enzymes – A study of their impact on cod ( *Gadus morhua* ) muscle proteins and textural properties in a fermented product. *Food Chemistry*, 172, 551–558.
- Yanshun, X., Mengjie, D., Jinhong, Z., Qixing, J., & Wenshui, X. (2015). Purification and Characterization of an Extracellular Acidic Protease of *Pediococcus pentosaceus* Isolated from Fermented Fish. *Food Science and Technology Research*. 21(5), 739–744. <https://doi.org/10.3136/fstr.21.739>