

DAFTAR PUSTAKA

- Abdelfattah, A., Malacrinò, A., Wisniewski, M., Cacciola, S. O. and Schena, L. 2018. Metabarcoding: A powerful tool to investigate microbial communities and shape future plant protection strategies. *Biological Control*, 120: 1–10.
- Agustia, F. C., Supriyadi, S., Murdiati, A. and Indrati, R. 2023. Germination of jack bean [*Canavalia ensiformis* (L.) DC.] and its impact on nutrient and anti-nutrient composition. *Food Research*, 7(5): 210–218.
- Ahirwar, R. and Nahar, P. 2015. Development of an aptamer-affinity chromatography for efficient single step purification of Concanavalin A from *Canavalia ensiformis*. *Journal of Chromatography B*, 997: 105–109.
- Akrapunam, M. A. and Sefa-Dedeh, S. 1997. Jack bean (*Canavalia ensiformis*): Nutrition related aspects and needed nutrition research. *Plant Foods for Human Nutrition*, 50(2): 93–99.
- Andriati, N., Anggrahini, S., Setyaningsih, W., Sofiana, I., Pusparasi, D. A. and Mossberg, F. 2018. Physicochemical characterization of jack bean (*Canavalia ensiformis*) tempeh. *Food Research*, 2(5): 481–485.
- Arbianto, P. (1995) Pengembangan industri fermentasi tradisional umumnya, tempe khususnya : Suatu gagasan. *Prosiding Pengembangan Tempe dalam Industri Pangan Modern* (pp.182-188). Yayasan Tempe Indonesia, Jakarta.
- Ardiani, I., A'yun, Q. and Nazua, K. S. 2024. Variasi Spesies *Rhizopus* Yang Berperan Dalam Pembuatan Tempe Di Daerah Bekasi. *Jurnal Biology Science & Education*, 13(1): 10–18.
- Aryuman, P., Lertsiri, S., Visessanguan, W., Niamsiri, N., Bhumiratana, A. and Assavanig, A. 2015. Glutaminase-producing *Meyerozyma* (*Pichia*) *guilliermondii* isolated from Thai soy sauce fermentation. *International Journal of Food Microbiology*, 192: 7–12.
- Aung, T. and Eun, J.-B. 2022. Impact of time and temperature on the physicochemical, microbiological, and nutraceutical properties of laver kombucha (*Porphyra dentata*) during fermentation. *LWT*, 154: 112643.
- Austin, B. 2015. *Rothia*. In W. B. Whitman (Ed.), *Bergey's Manual of Systematics of Archaea and Bacteria* (pp. 1–13). Wiley.
- Baek, J.-H., So, K.-K., Ko, Y.-H., Kim, J.-M. and Kim, D.-H. 2014. Mycoflora and enzymatic characterization of fungal isolates in commercial meju, starter for a Korean traditional fermented soybean product. *Mycobiology*, 42(3): 291–295.
- Bao, Y., Yangzong, Z., Yuan, Z., Shi, R., Feng, K., Xin, P. and Song, T. 2023. The microbial communities and natural fermentation quality of ensiling oat (*Avena sativa* L.) harvest from different elevations on the Qinghai-Tibet Plateau. *Frontiers in Microbiology*, 13: 1108890.
- Barhoum, A. and García-Betancourt, M. L. 2018. Physicochemical characterization of nanomaterials: Size, morphology, optical, magnetic, and electrical

- properties. In *Emerging Applications of Nanoparticles and Architecture Nanostructures* (pp. 279–304). Elsevier.
- Barus, T., Suwanto, A., Tri Wahyudi, A. and Wijaya, H. 2008. Role of bacteria in tempe bitter taste formation: Microbiological and molecular biological analysis based on 16S rRNA gene. *Microbiology Indonesia*, 2(1): 17–21.
- Becker, K., Heilmann, C. and Peters, G. 2014. Coagulase-negative staphylococci. *Clinical Microbiology Reviews*, 27(4): 870–926.
- Belkher, N. A., Al-abbas, A. A. and Zidan, M. 2019. Potentiometric studies on stability constant of the complexes of some essential transition metal ions with L-valine. *Journal of Chemical and Pharmaceutical Research*, 3: 1–10.
- Beuchat, L. R. 1987. *Food and Beverage Mycology* (2nd ed.). Springer Science & Business Media.
- Björkroth, J., Dicks, L. M. T., and Endo, A. 2014. The genus *Weissella*. In W. H. Holzapfel and B. J. B. Wood (Eds). *Lactic Acid Bacteria*. 1st ed. Pp. 417–428, Wiley. New Jersey.
- Blaalid, R., Kumar, S., Nilsson, R. H., Abarenkov, K., Kirk, P. M. and Kauserud, H. 2013. ITS1 versus ITS2 as DNA metabarcodes for fungi. *Molecular Ecology Resources*, 13(2): 218–224.
- Bodilis, J., Nsigue-Meilo, S., Besaury, L. and Quillet, L. 2012. Variable copy number, intra-genomic heterogeneities and lateral transfers of the 16S rRNA gene in *Pseudomonas*. *PLoS ONE*, 7(4): e35647.
- Breitwieser, F. P. and Salzberg, S. L. 2020. Pavian: Interactive analysis of metagenomics data for microbiome studies and pathogen identification. *Bioinformatics*, 36(4): 1303–1304.
- Canoy, T. S., Wiedenbein, E. S., Bredie, W. L. P., Meyer, A. S., Wösten, H. A. B. and Nielsen, D. S. 2024. Solid-state fermented plant foods as new protein sources. *Annual Review of Food Science and Technology*, 15(1): 189–210.
- Chao, A., Chazdon, R. L., Colwell, R. K., & Shen, T. (2004). A new statistical approach for assessing similarity of species composition with incidence and abundance data. *Ecology Letters*, 8(2), 148–159.
- Coda, R., Rizzello, C. G., Di Cagno, R., Trani, A., Cardinali, G. and Gobbetti, M. 2013. Antifungal activity of *Meyerozyma guilliermondii*: Identification of active compounds synthesized during dough fermentation and their effect on long-term storage of wheat bread. *Food Microbiology*, 33(2): 243–251.
- Colombo, A. L., Padovan, A. C. B. and Chaves, G. M. 2011. Current knowledge of *Trichosporon* spp. and trichosporonosis. *Clinical Microbiology Reviews*, 24(4): 682–700.
- Cooney, S., O'Brien, S., Iversen, C. and Fanning, S. 2014. Bacteria: Other pathogenic enterobacteriaceae – *Enterobacter* and other genera. In *Encyclopedia of Food Safety* (pp. 433–441). Elsevier.

- Cristescu, M. E. 2014. From barcoding single individuals to metabarcoding biological communities: Towards an integrative approach to the study of global biodiversity. *Trends in Ecology & Evolution*, 29(10): 566–571.
- Damanik, R. N. S., Pratiwi, D. Y. W., Widyastuti, N., Rustanti, N., Anjani, G. and Afifah, D. N. 2018. Nutritional composition changes during tempeh gembus processing. *IOP Conference Series: Earth and Environmental Science*, 116: 012026.
- D'Amore, R., Ijaz, U. Z., Schirmer, M., Kenny, J. G., Gregory, R., Darby, A. C., Shakya, M., Podar, M., Quince, C. and Hall, N. 2016. A comprehensive benchmarking study of protocols and sequencing *platforms* for 16S rRNA community profiling. *BMC Genomics*, 17(1): 55.
- De Coster, W., D'Hert, S., Schultz, D. T., Cruts, M. and Van Broeckhoven, C. 2018. NanoPack: Visualizing and processing long-read sequencing data. *Bioinformatics*, 34(15): 2666–2669.
- de Oliveira, I. M. F., Ng, D. Y. K., van Baarlen, P., Stegger, M., Andersen, P. S. and Wells, J. M. 2022. Comparative genomics of *Rothia* species reveals diversity in novel biosynthetic gene clusters and ecological adaptation to different eukaryotic hosts and host niches. *Microbial Genomics*, 8(9): 000854.
- de Vos, P., Garrity, G. M., Jones, D., Krieg, N. R., Ludwig, W., Rainey, F. A., Schleifer, K.-H. and Whitman, W. B. (Eds.). 2009. *Bergey's Manual of Systematic Bacteriology* (2nd ed., Vol. 3). Springer.
- Deamer, D., Akeson, M. and Branton, D. 2016. Three decades of nanopore sequencing. *Nature Biotechnology*, 34(5): 518–524.
- Dwidjoseputro, D. and Wolf, F. T. 1970. Microbiological studies of Indonesian fermented foodstuffs. *Mycopathologia et Mycologia Applicata*, 41(3–4): 211–222.
- Efriwati, Suwanto, A., Rahayu, G. and Nuraida, L. 2013. Population dynamics of yeasts and lactic acid bacteria (LAB) during tempeh production. *HAYATI Journal of Biosciences*, 20(2): 57–64.
- Fatahi-Bafghi, M. 2021. Characterization of the *Rothia* spp. and their role in human clinical infections. *Infection, Genetics and Evolution*, 93: 104877.
- Ferrocino, I. and Cocolin, L. 2017. Current perspectives in food-based studies exploiting multi-omics approaches. *Current Opinion in Food Science*, 13: 10–15.
- Fischer, E. R., Hansen, B. T., Nair, V., Hoyt, F. H., Schwartz, C. L. and Dorward, D. W. 2024. Scanning electron microscopy. *Current Protocols*, 4(5): e1034.
- Fredrickson, A. G. 1977. Behavior of mixed cultures of microorganisms. *Annual Review of Microbiology*, 31(1): 63–88.
- Freese, S., Vogts, T., Speer, F., Schäfer, B., Passoth, V. and Klinner, U. 2011. C- and N-catabolic utilization of tricarboxylic acid cycle-related amino acids by *Scheffersomyces stipitis* and other yeasts. *Yeast*, 28(5): 375–390.

- Giovani, S., Putri, A. D., Adelina, N. M. and Setiyoko, A. 2024. Quality characteristics of jack bean (*Canavalia ensiformis* L.) tempeh milk with addition of Ajwa date (*Phoenix dactylifera* L.) and various types of stabilizers. *Journal of Agri-Food Science and Technology*, 5(1): 18–32.
- Giraffa, G. 2004. Studying the dynamics of microbial populations during food fermentation. *FEMS Microbiology Reviews*, 28(2): 251–260.
- Goh, H. F. and Philip, K. 2015. Purification and characterization of bacteriocin produced by *Weissella confusa* A3 of dairy origin. *PLOS ONE*, 10(10): e0140434.
- Golding, C. G., Lamboo, L. L., Beniac, D. R. and Booth, T. F. 2016. The scanning electron microscope in microbiology and diagnosis of infectious disease. *Scientific Reports*, 6(1): 26516.
- Goswami, K., & Sanan-Mishra, N. 2021. RNA-seq for revealing the function of the transcriptome. In *Bioinformatics Methods and Applications* (pp. 105–129). Academic Press.
- Guan, L., Cho, K. H. and Lee, J.-H. 2011. Analysis of the cultivable bacterial community in jeotgal, a Korean salted and fermented seafood, and identification of its dominant bacteria. *Food Microbiology*, 28(1): 101–113.
- Harnelly, E., Kusuma, H. I., Thomy, Z. and Samingan, S. 2022. Internal transcribed spacer (ITS) gene as an accurate DNA barcode for identification of macroscopic fungus in Aceh. *Biodiversitas Journal of Biological Diversity*, 23(5): 2469–2476.
- Hofer, C., Lingenhag, S., Moncadas, L. S., Rain-Franco, A., and Andrei, A. 2023. Q20+ Nanopore sequencing data recover a high-quality *Asticcacaulis* sp. genome. *Microbiology Resource Announcements*, 12(10).
- Huang, L., Hwang, C.-A., Liu, Y., Renye, J. and Jia, Z. 2022. Growth competition between lactic acid bacteria and *Listeria monocytogenes* during simultaneous fermentation and drying of meat sausages – A mathematical modeling. *Food Research International*, 158: 111553.
- Jain, M., Olsen, H. E., Paten, B. and Akeson, M. 2016. The Oxford Nanopore MinION: Delivery of nanopore sequencing to the genomics community. *Genome Biology*, 17(1): 239.
- Johnson, E. A. and Echavarri-erasun, C. 2011. Yeast biotechnology. In C. P. Kurtzman, J. W. Fell and T. Boekhout (Eds.), *The Yeasts, A Taxonomic Study* (4th ed., pp. 21–44). Elsevier B.V.
- Khusro, A. and Aarti, C. 2022. Metabolic heterogeneity and techno-functional attributes of fermented foods-associated coagulase-negative staphylococci. *Food Microbiology*, 105: 104028.
- Kim, T. W., Lee, J. H., Park, M. H. and Kim, H. Y. 2010. Analysis of bacterial and fungal communities in Japanese and Chinese-fermented soybean pastes using nested PCR-DGGE. *Current Microbiology*, 60(5): 315–320.

- Kim, J. S., Kim, J., Kim, S. H., & Moon, K.-D. 2025. Development of chickpea tempeh using *Rhizopus oryzae* for dysphagia diet: Effect of fermentation time and heat treatment. *Innovative Food Science & Emerging Technologies*, 100(103940): 1-9.
- Kloos, W. E., Tornabene, T. G. and Schleifer, K. H. 1974. Isolation and characterization of micrococci from human skin, including two new species: *Micrococcus zyzae* and *Micrococcus kristinae*. *International Journal of Systematic Bacteriology*, 24(1): 79–101.
- Kress, W. J. and Erickson, D. L. 2008. DNA barcodes: Genes, genomics, and bioinformatics. *Proceedings of the National Academy of Sciences*, 105(8): 2761–2762.
- Kurtzman, C. P. 2011. *Meyerozyma* Kurtzman & M. Suzuki (2010). In C. P. Kurtzman, J. W. Fell and T. Boekhout (Eds.), *The Yeasts* (4th ed., pp. 621–624). Elsevier.
- Lee, Y.-K. and Murugesan, S. 2009. Substrate specificity of glucose dehydrogenase and carbon source utilization pattern of *Pantoea dispersa* strain P2 and its radiation-induced mutants. *Journal of Radiation Industry*, 3(2): 121–125.
- Li, H.-M., Du, H.-T., Liu, W., Wan, Z. and Li, R.-Y. 2005. Microbiological characteristics of medically important *Trichosporon* species. *Mycopathologia*, 160(3): 217–225.
- Liu, X.-Z., Wang, Q.-M., Göker, M., Groenewald, M., Kachalkin, A. V., Lumbsch, H. T., Millanes, A. M., Wedin, M., Yurkov, A. M., Boekhout, T. and Bai, F.-Y. 2015. Towards an integrated phylogenetic classification of the *Tremellomycetes*. *Studies in Mycology*, 81(1): 85–147.
- López-Sánchez, R., Hernández-Oaxaca, D., Escobar-Zepeda, A., Ramos Cerrillo, B., López-Munguía, A. and Segovia, L. 2023. Analysing the dynamics of the bacterial community in pozol, a Mexican fermented corn dough. *Microbiology*, 169(7): 001355.
- Lu, H., Giordano, F. and Ning, Z. 2016. Oxford Nanopore MinION Sequencing and Genome Assembly. *Genomics Proteomics & Bioinformatics*, 14(5): 265–279.
- Magdalena, S., Surya, N. A. and Yogiara, Y. 2024. Effect of tempeh wrapping on sensory evaluation and lactic acid bacteria profile. *Food Research*, 8(4): 99–107.
- Mainar, M. S., Stavropoulou, D. A. and Leroy, F. 2017. Exploring the metabolic heterogeneity of coagulase-negative staphylococci to improve the quality and safety of fermented meats: A review. *International Journal of Food Microbiology*, 247: 24–37.
- Malla, M. A., Dubey, A., Kumar, A., Yadav, S., Hashem, A. and Abd_Allah, E. F. 2019. Exploring the human microbiome: The potential future role of next-generation sequencing in disease diagnosis and treatment. *Frontiers in Immunology*, 9: 2868.

- Mannaa, M., Han, G., Seo, Y.-S. and Park, I. 2021. Evolution of food fermentation processes and the use of multi-omics in deciphering the roles of the microbiota. *Foods*, 10(11): 2861.
- Mao, X., Gu, C., Ren, M., Chen, D., Yu, B., He, J., Yu, J., Zheng, P., Luo, J., Luo, Y., Wang, J., Tian, G. and Yang, Q. 2018. L-Isoleucine administration alleviates rotavirus infection and immune response in the weaned piglet model. *Frontiers in Immunology*, 9: 1654.
- Maryam, S., Sastrawidana, I. D. K., Sudiana, I. K. and Sukarta, I. N. 2024. Nutritional Profile Analysis of Red Bean Tempeh Fermented Using *Rhizopus oligosporus* at Different Time. *International of Nutrition and Food Sciences*, 13(2): 199-208.
- Maryati, Y., Susilowati, A., Melanie, H. and Lotulung, P. 2019. Fermentation of soybean (*Glycine max* (L.) merr) using mix inocula of *Rhizopus* sp. and *Sacharomyces cereviceae* for alternative source of folic acid. *IOP Conference Series: Materials Science and Engineering*, 536(1): 012124.
- McMahon, G. 2007. *Analytical Instrumentation: A Guide to Laboratory, Portable and Miniaturized Instruments*. Wiley.
- Moënne-Loccoz, Y., Mavingui, P., Combes, C., Normand, P. and Steinberg, C. 2015. Microorganisms and biotic interactions. In J.-C. Bertrand, P. Caumette, P. Lebaron, R. Matheron, P. Normand and T. Sime-Ngando (Eds.), *Environmental Microbiology: Fundamentals and Applications* (pp. 395–444). Springer Netherlands.
- Morin, A. 2014. *Pantoea*. In *Encyclopedia of Food Microbiology* (pp. 1028–1032). Elsevier.
- Nilsson, R. H., Kristiansson, E., Ryberg, M., Hallenberg, N. and Larsson, K.-H. 2008. Intraspecific ITS variability in the kingdom fungi as expressed in the international sequence databases and its implications for molecular species identification. *Evolutionary Bioinformatics*, 4: EBO.S653.
- Nout, M. J. R. and Kiers, J. L. 2005. Tempe fermentation, innovation and functionality: Update into the third millenium. *Journal of Applied Microbiology*, 98(4): 789–805.
- Nout, M. J. R. and Rombouts, F. M. 1990. A review: Recent developments in tempe research. *Journal of Applied Bacteriology*, 69(5): 609–633.
- Nurdini, A. L., Nuraida, L., Suwanto, A. and Suliantari. 2015. Microbial growth dynamics during tempe fermentation in two different home industries. *International Food Research Journal*, 22(4): 1668–1674.
- Ohshita, K., Nakajima, Y., Yamakoshi, J., Kataoka, S., Kikuchi, M. and Pariza, M. W. 2000. Safety evaluation of yeast glutaminase. *Food and Chemical Toxicology*, 38(8): 661–670.
- Okomoda, V. T., Tiamiyu, L. O. and Uma, S. G. 2016. Effects of hydrothermal processing on nutritional value of *Canavalia ensiformis* and its utilization

- by *Clarias gariepinus* (Burchell, 1822) fingerlings. *Aquaculture Reports*, 3: 214–219.
- O'Toole, D. K. 2016. Soy-based fermented foods. In *Reference Module in Food Science*. Elsevier.
- Pagarra, H. 2009. Laju Pertumbuhan Jamur *Rhizopus* sp. Pada Tempe Kacang Hijau (*Phaseolus radiatus* L.) (The Rate of Growth of Fungus *Rhizopus* sp. At Green Bean Tempe (*Phaseolus radiatus* L.)). *Bionature*, 10(2): 69–74.
- Pangastuti, A., Alfisah, R. K., Istiana, N. I., Sari, S. L. A., Setyaningsih, R., Susilowati, A. and Purwoko, T. 2019. Metagenomic analysis of microbial community in over-fermented tempeh. *Biodiversitas Journal of Biological Diversity*, 20(4): 1106–1114.
- Papadimitriou, K., Alegría, Á., Bron, P. A., De Angelis, M., Gobbetti, M., Kleerebezem, M., Lemos, J. A., Linares, D. M., Ross, P., Stanton, C., Turroni, F., Van Sinderen, D., Varmanen, P., Ventura, M., Zúñiga, M., Tsakalidou, E., & Kok, J. 2016. Stress physiology of lactic acid bacteria. *Microbiology and Molecular Biology Reviews*, 80(3): 837–890.
- Pascual, J., Macián, M. C., Arahál, D. R., Garay, E. and Pujalte, M. J. 2010. Multilocus sequence analysis of the central clade of the genus *Vibrio* by using the 16S rRNA, *recA*, *pyrH*, *rpoD*, *gyrB*, *rctB* and *toxR* genes. *International Journal of Systematic and Evolutionary Microbiology*, 60(1): 154–165.
- Pozzi, C., Bagnoli, F., & Rappuoli, R. 2016. *Staphylococcus aureus* coagulase R domain, a new evasion mechanism and vaccine target. *The Journal of Experimental Medicine*, 213(3): 292.
- Puspitojati, E., Indrati, R., Cahyanto, M. N. and Marsono, Y. 2019. Formation of ACE-inhibitory peptides during fermentation of jack bean tempe inoculated by usar *Hibiscus tiliaceus* leaves starter. *IOP Conference Series: Earth and Environmental Science*, 292(1): 012022.
- Rachmah, A. N., Cempaka, L. and Mukaromah, A. S. 2024. Jenis Ragi dan Bahan Pembungkus Terhadap Kualitas Tempe. *Berkala Ilmiah Biologi*, 15(2): 82–91.
- Radiati, A. and Sumanto. 2016. Analisis Sifat Fisik, Sifat Organoleptik, dan Kandungan Gizi Pada Produk Tempe dari Kacang Non-Kedelai. *Jurnal Aplikasi Teknologi Pangan*, 5(1): 1–10.
- Rahayu, N. A., Cahyanto, M. N. and Indrati, R. 2019. Pola Perubahan Protein Koro Benguk (*Mucuna pruriens*) Selama Fermentasi Tempe Menggunakan Inokulum Raprima. *agriTECH*, 39(2): 128–136.
- Ramazzotti, M. and Bacci, G. 2018. 16S rRNA-based taxonomy profiling in the metagenomics era. In *Metagenomics* (pp. 103–119). Elsevier.
- Ranasinghe, D., Jayadas, T. T. P., Jayathilaka, D., Jeewandara, C., Dissanayake, O., Guruge, D., Ariyaratne, D., Gunasinghe, D., Gomes, L., Wijesinghe, A., Wijayamuni, R. and Malavige, G. N. 2022. Comparison of different

- sequencing techniques for identification of SARS-CoV-2 variants of concern with multiplex real-time PCR. *PLOS ONE*, 17(4): e0265220.
- Rizzello, C. G., Coda, R., Wang, Y., Verni, M., Kajala, I., Katina, K. and Laitila, A. 2019. Characterization of indigenous *Pediococcus pentosaceus*, *Leuconostoc kimchii*, *Weissella cibaria* and *Weissella confusa* for faba bean bioprocessing. *International Journal of Food Microbiology*, 302: 24–34.
- Rokhmah, L. N., Anam, C., Handajani, S. and Rachmawati, D. 2009. Kajian kadar asam fitat dan kadar protein selama pembuatan tempe kara benguk (*Mucuna pruriens*) dengan variasi pengecilan ukuran dan lama fermentasi. *Biofarmasi Journal of Natural Product Biochemistry*, 7(1): 1–9.
- Romulo, A. and Surya, R. 2021. Tempe: A traditional fermented food of Indonesia and its health benefits. *International Journal of Gastronomy and Food Science*, 26: 100413.
- Ruiz-Terán, F. and Owens, J. D. 1996. Chemical and enzymic changes during the fermentation of Bacteria-Free soya bean tempe. *Journal of the Science of Food and Agriculture*, 71(4): 523–530.
- Safitry, A., Pramadani, M., Febriani, W., Achyar, A. and Fevria, R. 2021. Uji Organoleptik Tempe dari Kacang Kedelai (*Glycine max*) dan Kacang Merah (*Phaseolus vulgaris*). *Prosiding SEMNAS BIO 2021 Universitas Negeri Padang. Inovasi Riset Biologi dalam Pendidikan dan Pengembangan Sumber Daya Lokal*, Padang.
- Samarakoon, H., Punchihewa, S., Senanayake, A., Hammond, J. M., Stevanovski, I., Ferguson, J. M., Ragel, R., Gamaarachchi, H. and Deveson, I. W. 2020. Genopo: A nanopore sequencing analysis toolkit for portable Android devices. *Communications Biology*, 3(1): 538.
- Santos, A., Van Aerle, R., Barrientos, L. and Martinez-Urtaza, J. 2020. Computational methods for 16S metabarcoding studies using Nanopore sequencing data. *Computational and Structural Biotechnology Journal*, 18: 296–305.
- Sawant, S. S., Park, H.-Y., Sim, E.-Y., Kim, H.-S. and Choi, H.-S. 2025. Microbial fermentation in food: Impact on functional properties and nutritional enhancement—A review of recent developments. *Fermentation*, 11(1): 15.
- Sharma, A. and Kapoor, A. C. 1996. Levels of antinutritional factors in pearl millet as affected by processing treatments and various types of fermentation. *Plant Foods for Human Nutrition*, 49(3): 241–252.
- Siddique, A. B., Albrechtsen, B. R., Ilbi, H., and Siddique, A. B. 2022. Optimization of Protocol for construction of fungal ITS Amplicon Library for High-Throughput Illumina sequencing to study the mycobiome of aspen leaves. *Applied Sciences*, 12(3), 1136.
- Sieuwert, S., De Bok, F. A. M., Hugenholtz, J. and Van Hylckama Vlieg, J. E. T. 2008. Unraveling microbial interactions in food fermentations: From classical

- to genomics approaches. *Applied and Environmental Microbiology*, 74(16): 4997–5007.
- Sjamsuridzal, W., Khasanah, M., Febriani, R., Vebliza, Y., Oetari, A., Santoso, I. and Gandjar, I. 2021. The effect of the use of commercial tempeh starter on the diversity of *Rhizopus* tempeh in Indonesia. *Scientific Reports*, 11(1): 23932.
- Sparringa, R. A. and Owens, J. D. 1999. Causes of alkalization in tempe solid substrate fermentation. *Enzyme and Microbial Technology*, 25(8–9): 677–681.
- Sridhar, K. R. and Seenana, S. 2006. Nutritional and antinutritional significance of four unconventional legumes of the genus *Canavalia* – A comparative study. *Food Chemistry*, 99(2): 267–288.
- Stevens, B. M., Creed, T. B., Reardon, C. L. and Manter, D. K. 2023. Comparison of Oxford Nanopore Technologies and Illumina MiSeq sequencing with mock communities and agricultural soil. *Scientific Reports*, 13(1): 9323.
- Sugita, T., Takashima, M., Nakase, T., Ichikawa, T., Ikeda, R. and Shinoda, T. 2001. Two new yeasts, *Trichosporon debeurmannianum* sp. nov. and *Trichosporon dermatis* sp. nov., transferred from the *Cryptococcus humicola* complex. *International Journal of Systematic and Evolutionary Microbiology*, 51(3): 1221–1228.
- Surono, I. S. 2016. Ethnic fermented foods and beverages of Indonesia. In *Ethnic Fermented Foods and Alcoholic Beverages of Asia* (pp. 341–382). Springer India.
- Syamsiana, A. and Rizal, S. 2024. Formulasi kacang koro pedang (*Canavalia ensiformis*) dan kacang kedelai (*Glycine max* L.) terhadap total kapang, total khamir, dan sifat sensori tempe mosaccha.
- Tanner, F. W., Vojnovich, C. and Van Lanen, J. M. 1945. Riboflavin production by *Candida* species. *Science*, 101(2616): 180–181.
- Teixeira, C. G., Silva, R. R. D., Fusieger, A., Martins, E., Freitas, R. D. and Carvalho, A. F. D. 2021. The *Weissella* genus in the food industry: A review. *Research, Society and Development*, 10(5): e8310514557.
- Wah, T. T., Walaisri, S., Assavanig, A., Niamsiri, N. and Lertsiri, S. 2013. Co-culturing of *Pichia guilliermondii* enhanced volatile flavor compound formation by *Zygosaccharomyces rouxii* in the model system of Thai soy sauce fermentation. *International Journal of Food Microbiology*, 160(3): 282–289.
- Wamiti, J., Kogi-Makau, W., Ngala, S. and Ephraim, F. 2018. Effectiveness of leucine supplementation in the management of moderate wasting in children. *SM Journal of Food and Nutritional Disorders*, 4(1): 1–7.
- Wang, J., Jiang, Q., Huang, Z., Wang, Y., Roubik, H., Yang, K., Cai, M. and Sun, P. 2023. Solid-state fermentation of soybean meal with edible mushroom

- mycelium to improve its nutritional, antioxidant capacities and physicochemical properties. *Fermentation*, 9(4): 322.
- Wang, Z., Fang, Y., Liu, Z., Hao, N., Zhang, H. H., Sun, X., Que, J. and Ding, H. 2024. Adapting nanopore sequencing basecalling models for modification detection via incremental learning and anomaly detection. *Nature Communications*, 15(1): 7148.
- Wei, Q., Wang, H., Chen, Z., Lv, Z., Xie, Y. and Lu, F. 2013. Profiling of dynamic changes in the microbial community during the soy sauce fermentation process. *Applied Microbiology and Biotechnology*, 97(20): 9111–9119.
- West, S. R., Suddaby, A. B., Lewin, G. R. and Ibberson, C. B. 2024. *Rothia*. *Trends of Microbiology*, 32(7): 720–721.
- Winarno, F. G. 2003. *Kimia pangan dan gizi*. PT Gramedia Pustaka Utama.
- Wood, D. E., Lu, J. and Langmead, B. 2019. Improved metagenomic analysis with Kraken 2. *Genome Biology*, 20(1): 257.
- Wösten, H. A. B. 2019. Filamentous fungi for the production of enzymes, chemicals and materials. *Current Opinion in Biotechnology*, 59: 65–70.
- Xia, A.-N., Liu, L.-X., Tang, X.-J., Lei, S.-M., Meng, X.-S. and Liu, Y.-G. 2022. Dynamics of microbial communities, physicochemical factors and flavor in rose jam during fermentation. *LWT*, 155: 112920.
- Xiong, X., Liu, C. and Zheng, X. 2021. Regulation of structure and quality of dried noodles by liquid pre-fermentation. *Foods*, 10(10): 2408.
- Yan, Y., Qian, Y., Ji, F., Chen, J. and Han, B. 2013. Microbial composition during Chinese soy sauce koji-making based on culture dependent and independent methods. *Food Microbiology*, 34(1): 189–195.
- Yang, W.-T., Yi, Y.-J. and Xia, B. 2023. Unveiling the duality of *Pantoea dispersa*: A mini review. *Science of The Total Environment*, 873: 162320.
- Yarlina, V. P., Andoyo, R., Djali, M. and Lani, M. N. 2022. Metagenomic analysis for indigenous microbial diversity in soaking process of making tempeh jack beans (*Canavalia ensiformis*). *Current Research in Nutrition and Food Science Journal*, 10(2): 620–632.
- Yarlina, V. P., Djali, M., Andoyo, R., Nurmilah, S. and Lani, M. N. 2024. Metagenomic insights into enhancing protein content and digestibility in Jack Bean (*Canavalia ensiformis*) tempeh: Unraveling microbial dynamics during fermentation. *Applied Food Research*, 4(2): 100588.
- Yarlina, V. P., Nabilah, F., Z, Z., Nurhasanah, S. and Lani, M. N. 2024. Optimal fermentation time for jack bean (*Canavalia ensiformis*) tempeh: A comprehensive pattern analysis of chemical and enzyme changes. *Current Research in Nutrition and Food Science Journal*, 12(3): 1143–1153.
- Zhang, W., Xiao, Z., Gu, Z., Deng, X., Liu, J., Luo, X., Song, C. and Jiang, X. 2024. Fermentation-promoting effect of three salt-tolerant *Staphylococcus* and their co-fermentation flavor characteristics with *Zygosaccharomyces rouxii* in soy sauce brewing. *Food Chemistry*, 432: 137245.

- Zhao, H., Xu, J., Wang, R., Liu, X., Peng, X. and Guo, S. 2023. Succession and diversity of microbial flora during the fermentation of douchi and their effects on the formation of characteristic aroma. *Foods*, 12(2): 329.
- Zhao, W., Liang, Z., Qian, M., Li, X., Dong, H., Bai, W., Wei, Y. and He, S. 2022. Evolution of microbial communities during fermentation of Chi-flavor type Baijiu as determined by high-throughput sequencing. *LWT*, 170: 114102.