

DAFTAR PUSTAKA

- Abbas, K. A., A. M. Saleh, A. Mohamed, and O. Lasekan. 2009. The relationship between water activity and fish spoilage during cold storage: a review. *Journal of Food, Agriculture & Environment*. 7(3):86-90.
- Abelti, A. L. 2013. Microbiological and chemical changes of nile tilapia (*Oreochromis niloticus* L.) fillet during ice storage: effect of age and sex. *Journal of Food Science and Technology*. 5(10):1260-1265.
- Adawiyah, D. R., L. Guntari, V. S. Smaratika, and Lince. 2020. A comparison of tetrad and triangle test: case study on sweetener products using consumer panels. *IOP Conf. Series: Earth and Environmental Science* 443.
- Afriani, Y., S. Lestari, dan Herpandi. 2015. Karakteristik fisiko-kimia dan sensori pempek ikan gabus (*Channa striata*) dengan penambahan brokoli (*Brassica oleracea*) sebagai pangan fungsional. *Jurnal Teknologi Hasil Perikanan*. 4(2):95-103.
- Agustini, T. W., Y. S. Darmanto, and E. Susanto. 2009. Physicochemical properties of some dried fish products in Indonesia. *Journal of Coastal Development*. 12(2):73-80.
- Ako, J., M. N. Ibrahim, dan N. Asyik. 2016. Penambahan rimpang jahe (*Zingiber officinale*) dan lama penyimpanan terhadap mutu pindang. *Jurnal Sains dan Teknologi Pangan*. 1(1):1-7.
- Ali, M., M. Imran, M. Nadeem, M. K. Khan, M. Sohaib, H. A. R. Suleria, and R. Bashir. 2019. Oxidative stability and sensory acceptability of functional fish meat product supplemented with plant-based polyphenolic optimal extracts. *Lipids in Health and Disease*. 18(35):1-16.
- Allafi, A. R. and M. A. Pascall. 2013. The effect of different percent loadings of nanoparticles on the barrier and thermal properties of nylon 6 films. *Innovative Food Science and Emerging Technologies*. 20:276-280.
- Amaral, A. B., M. V. D. Silva, and S. C. D. S. Lannes. 2018. Lipid oxidation in meat: mechanisms and protective factors-a review. *Food Science and Technology*. 38:1-15.
- Ammala, A. 2011. *Nylon-MXD6 Resins for Food Packaging in Multifunctional and Nanoreinforced Polymers for Food Packaging*. Woodhead Publishing, Swaston.
- Ananda, S. H. dan Tahiruddin. 2020. Pelatihan pembuatan pempek. *Karya Kesehatan Journal of Community Engagement*. 1(1):13-15.
- Annisa, W. I., M. Ardiaria, A. Rahadiyanti, D. Y. Fitranti, F. F. Dieny, D. N. Afifah, and C. Nissa. 2020. Microbiology quality and shelf life analysis of enteral formulas based on tempeh flour and yam flour. *The Indonesian Journal of Nutrition*. 8(2):85-91.

- Asikin, A. N., I. Kusumaningrum, dan T. Hidayat. 2020. Characteristics of fishball on various concentration of carrageenan from different harvest time of *Kappaphycus alvarezii*. Asian Journal of Pharmaceutical and Clinical Research. 13(6):63-66.
- ASTM International. 2009. Standard Terminology Relating to Sensory Evaluations of Materials and Products, E253-09a. ASTM International, United States.
- Azizah, Z., R. Rasyid, dan D. Kartina. 2016. Pengaruh pengulangan dan lama penyimpanan terhadap ketengikan minyak kelapa dengan metode asam thiobarbiturat (TBA). Jurnal Farmasi Higea. 8(2):189-200.
- Badan Standarisasi Nasional. 1998. Cara Uji Kimia-Bagian 8: Penentuan Kadar *Total Volatil Base Nitrogen* (TVB-N) dan *Trimetil Amin Nitrogen* (TMA-N) pada Produk Perikanan. SNI 01-4995-1998. Badan Standarisasi Nasional, Jakarta.
- Badan Standarisasi Nasional. 2006^a. Cara Uji Mikrobiologi-Bagian 3: Penentuan Angka Lempeng Total (ALT) pada Produk Perikanan. SNI 01-2332.3-2006. Badan Standarisasi Nasional, Jakarta.
- Badan Standarisasi Nasional. 2006^b. Petunjuk Pengujian Organoleptik dan atau Sensori. SNI 01-2346-2006. Badan Standarisasi Nasional, Jakarta.
- Badan Standarisasi Nasional. 2013. Pempek Ikan Rebus Beku. SNI 7661.1:2013. Badan Standarisasi Nasional, Jakarta.
- Badan Nasional Indonesia. 2013. Otak-Otak Ikan. SNI 7757:2013. Badan Standarisasi Nasional, Jakarta.
- Bargues, C. M., C. Escrivà, M. Dromant, C. Borrás, and J. Vina. 2021. Lipid peroxidation as measured by chromatographic determination of malondialdehyde. Archives of Biochemistry and Biophysics. 709:1-7.
- Baygar, T., N. Erkan, S. Mol, O. Özden, D. Uçok, and Y. Yıldırım. 2008. Determination of the shelf-life of trout (*Oncorhynchus mykiss*) raw meatball that packed under modified atmosphere. Pakistan Journal of Nutrition. 7(3): 412-417.
- Bekhit, A. E. A., B. W. B. Holman, S. G. Giteru, and D. L. Hopkins. 2021. Total volatile basic nitrogen (TVB-N) and its role in meat spoilage: a review. Trends in Food Science and Technology. 109:280-302.
- Bogle, M. A. and A. K. Joseph. 2005. Instruments and Materials in Surgery of the Skin. Elsevier, Amsterdam.
- Cahyadi, D., L. Lanta, Nurabdiannyah, and M. Farid. 2019. The design of thermoplastic packaging and products maker for small and medium enterprises (SMEs) in Indonesia. International Journal of Humanities and Innovation. 2(3):75-84.

- Castell, J. V., M. J. G. Lechon, X. Ponsoda, and R. Bort. 1997. In Vitro Investigation of the Molecular Mechanisms of Hepatotoxicity. Academic Press, Cambridge.
- Choi, S. E. 2013. Food Science : An Ecological Approach. Jones and Barlett Learning, United States.
- Cichello, S. A. 2015. Oxygen absorber in food preservation: a review. Journal Food Science Technology. 52(4):1889-95.
- Boran M. and S. Kose 2007. Storage properties of three types of fried whiting balls at refrigerated temperatures. Turkish Journal of Fisheries and Aquatic Sciences. 7(4):65-70.
- Budaraga, I. K., V. Saibuma, and L. Hermalena. 2021. Quality of red tuna (*yellowfin tuna*) fishball, white oyster mushroom (*Pleurotus ostreatus*) on different types of packaging and storage time. Conference Series: Earth and Environmental Science 715.
- Clinisciences. 2022. Plate Count Agar (PCA)-Non-Selective Solid Media for Microbiology. <<https://www.clinisciences.com/en/buy/cat-plate-count-agar-pca-non-selective-5497.html>>. Diakses 14 April 2022.
- Cruz, R. S., G. P. Camilloto, and A. C. S. Pires. 2012. Oxygen Scavengers: An Approach on Food Preservation in Structure and Function of Food Engineering. Intech Open, Austria.
- Dallabona, B. R., L. B. Karam, R. Wagner, D. A. F. S. Bartolomeu, J. D. Mikos, J. G. P. Francisco, R. E. F. D. Macedo, and P. G. Kirschnik. 2013. Effect of heat treatment and packaging systems on the stability of fish sausage. Revista Brasileira de Zootecnia. 42(12):835-843.
- Darmawati, H. Natsir, dan S. Dali. 2021. Analisis *total volatile base* (TVB) dan uji organoleptik nugget ikan dengan penambahan kitosan 2,5%. Indonesian Journal of Chemical Analysis. 4(1):1-10.
- Desvita, H., M. Faisal, Mahidin, and Suhendrayatna. 2020. Preservation of meatballs with edible coating of chitosan dissolved in rice hull-based liquid smoke. Heliyon. 6:1-6.
- Djomeh, Z. E., A. K. Moghaddam, and A. Broumand. 2016. Casein-Based Zataria Multiflora Boiss Films: Use in Antimicrobial Packaging. Academic Press, London.
- Efianto, A., Z. Zubir, dan Maryetti. 2014. Pempek Palembang Makanan Tradisional dari Kota Palembang Provinsi Sumatera Selatan. Balai Pelestarian Nilai Budaya Padang, Padang.
- Elgadir, M. A., A. A. Al-Hassan, M. Z. I. Sarker, and M. J. H. Akanda. 2017. Shelf life extension of various types of fish meat using selected modified atmosphere packaging (MAP) methods, review. International Journal of Food and Nutritional Science. 6(3):89-96.
- Erkmen, O. and T. F. Bozoglu. 2016. Food Microbiology: Principles Into Practice. John Wiley & Sons, New York.

- Fadhallah, E. G., F. Nurainy, dan E. Suroso. 2021. Karakteristik sensori, kimia dan fisik pempek dari ikan tenggiri dan ikan kiter pada berbagai formulasi. *Jurnal Penelitian Pertanian Terapan*. 21(1):16-23.
- Farahita, Y., Junianto, dan N. Kurniawati. 2012. Karakteristik kimia *caviar* nilam dalam perendaman campuran larutan asam asetat dengan larutan garam selama penyimpanan suhu dingin (5-10°C). *Jurnal Perikanan dan Kelautan*. 3(4):165-170.
- Firmansyah, M. 2020. Aplikasi *edible coating* pada bakso ayam. *Edufortech*. 5(2):128-135.
- Foodsafety. 2001. Water Activity's Role in Food Safety and Quality. <<https://www.food-safety.com/articles/4420-water-activitye28099s-role-in-food-safety-and-quality>> . Diakses 7 November 2022.
- Forde, C. G. 2016. Flavor Perception and Satiation in Flavor: From Food to Behaviors, Wellbeing and Health. Woodhead Publishing Series in Food Science, Technology and Nutrition, United Kingdom.
- Ghaffar, S., A. S. Abdulamir, F. A. Bakar, R. Karim, and N. Saari. 2009. Microbial growth, sensory characteristic and pH as potential spoilage indicators of chinese yellow wet noodles from commercial processing plants. *American Journal of Applied Sciences*. 6(6):1059-1066.
- Gokoglu, N. and I. Ucak. 2020. Effect of freshness grade of anchovy (*Engraulis encrasicolus*) on the quality of marinated product stored at 4°C. *Aquatic Sciences Journal*. 7(2):54-59.
- Gokoglu, N., P. Yerlikaya, H. Uran, and O. K. Topuz. 2010. The effect of modified atmosphere packaging on the quality and shelf life of frankfurter type-sausages. *Journal of Food Quality*. 33:367-380.
- Gomez, N.R., B. S. Pierre, C. M. A. Morgado, and A. J. D. Campos. 2021. Postharvest quality of fresh murici fruits as a function of storage and packing. *Pesquisa Agropecuária Tropical*. 51:1-11.
- Gonçalves, A. A. and T. C. L. Santos. 2018. The effects of vacuum and modified atmosphere packaging on quality changes in seasoned cobia (*Rachycentron canadum*) sticks stored under refrigeration. *Brazilian Journal of Food Technology*. 21:1-9.
- Guillen, R. S. and M. C. Guzman. 1998. The thiobarbituric acid (TBA) reaction in foods: a review. *Critical Reviews in Food Science and Nutrition*. 38(4):315-350.
- Günşen, U., A. Özcan, and A. Aydın. 2011. Determination of some quality criteria of cold stored marinated anchovy under vacuum and modified atmosphere conditions. *Turkish Journal of Fisheries and Aquatic Science*. 11:233-242.

- Hadju, Y., Y. K. Salami, N. Bialangi, and N. I. Ischak. 2022. Analysis of protein and bioactivity of nile fish (*Awaous melanocephalus*) extract as antioxidant. *Jambura Fish Processing Journal*. 4(2):103-112.
- Hahladakis, J. N. and E. Iacovidou. 2018. Closing the loop on plastic packaging materials: what is quality and how does it affect their circularity. *Science of the Total Environment*. 630:1394-1400.
- Hamzah, F dan E. Sribudiana. 2010. Mutu manisan kering buah naga merah (*Hylocereus polyrhizus*). *Sagu*. 9(1):15-20.
- Han, J. H. 2014. *Innovations in Food Packaging Second Edition*. Elsevier, USA.
- Hidayah, A., S. Lestari, dan R. Nopianti. 2014. Karakteristik fisik dan kimia pempek kijing (*Pilsbryoconcha* sp.). *Jurnal Fishtech*. 3(1):49-60.
- Hidayati, S. H., N. Suryani, S. Rahmah, dan S. Yudistira. 2022. Analisis kandungan protein, zat besi dan daya terima pempek ikan nila (*Oreochromis niloticus*) dan bayam (*Amaranthus* spp). *Jurnal Gizi dan Kesehatan*. 14(1):18-33.
- Hu, M. and C. Jacobsen. 2016. *Oxidative Stability and Shelf Life of Foods Containing Oils and Fats*. Elsevier, Amsterdam.
- Inats, A., E. N. Dewi, dan L. Purnamayanti. 2020. Penghambatan oksidasi lemak bakso ikan lele (*Clarias batracus*) dengan *edible coating* karagenan yang diperkaya minyak wijen. *Jurnal Ilmu dan Teknologi Perikanan*. 2(1):37-42.
- Iulietto, M. F., P. Sechi, E. Borgogni, and B. T. C. Goga. 2016. Meat spoilage: a critical review of a neglected alteration due to ropy slime producing bacteria. *Italian Journal of Animal Science*. 14(3):316-326.
- Jay, J.M. 2005. *Modern Food Microbiology*. Springer Science and Business Media, Germany.
- Junior, C. A. C., M. L. G. Monteiro, R. Patrícia, E. T. Mársico, M. M. Lopes, T. S. Alvares, and S. B. Mano. 2020. The effect of different packaging systems on the shelf life of refrigerated ground beef. *Foods*. 9(4):1-15.
- Kaba, N. and B. Corapci. 2014. Effects of two different modified atmosphere compositions on durability of steam-cooked rainbow trout (*Oncorhynchus mykiss*, Walbaum, 1792). *Journal of Food Processing and Preservation*. 38:2155-2166.
- Karathanos, V. T., S. Bakalis, A. Kyritsi, and P. S. Rodis. 2006. Color degradation of beans during storage. *International journal of food properties*. 9(1):61-71.
- Karneta, R. 2013. Difusivitas panas dan umur simpan pempek lenjer. *Jurnal Keteknikaan Pertanian*. 1(1):131-141.

- Kilcast, D. 2010. Combining Instrumental and Sensory Methods in Food Quality Control in Sensory Analysis for Food and Beverage Quality Control. Woodhead Publishing Series in Food Science, Technology and Nutrition, United Kingdom.
- Kolbeck, S., L. Reetz, M. Hilgarth, and R. F. Vogel. 2019. Quantitative oxygen consumption and respiratory activity of meat spoiling bacteria upon high oxygen modified atmosphere. *Frontiers in Microbiology*. 10:1-12.
- Kung, H. F., Y. C. Lee, C. W. Lin, R. R. Huang, C. A. Cheng, C. M. Lin, and Y. H. tsai. 2017. The effect of vacuum packaging on histamine changes of milkfish sticks at various storage temperatures. *Journal of Food and Drug Analysis*. 30:1-7.
- Lee, K. T. 2018. Shelf-life extension of fresh and processed meat products by various packaging applications. *Korean Journal of Packaging Science & Technology*. 24(2):57-64.
- Liu, K., Y. Liu, and F. Chen. 2019. Effect of storage temperature on lipid oxidation and changes in nutrient contents in peanuts. *Food Science & Nutrition*. 7(7):2280-2290.
- Liyanto, F. dan Y. D. Pratama. 2020. Peningkatan produktivitas pemasaran produk umkm pempek acen dengan pendekatan analisis SWOT dan DMAIC. *Jurnal Penelitian dan Aplikasi Sistem & Teknik Industri*. 14(2):136-145.
- Lorenzo, J. M., P. E. S. Munekata, and F. J. Barba. 2021. Sustainable Production Technology in Food. Elsevier, Amsterdam.
- Mahanta, P. and A. U. Muzaddadi. 2013. Extension of shelf life of the fermented fish product, shidal by packaging in glass bottle and low temperature storage. *Indian Journal of Fisheries*. 60(2):135-143.
- Mailoa, M. N., A. M. Tapotubun, and T. E.A.A. Matruty. 2017. Analysis total plate count (TPC) on fresh steak tuna applications edible coating *Caulerpa* sp. during stored at chilling temperature. *IOP Conference Series: Earth and Environmental Science*. 89:1-6.
- Mangaraj, S. and T. K. Goswami. 2009. Modified atmosphere packaging of fruits and vegetables for extamdng shelf-life : A Review. *Fresh Produce*. 3(1):1-31.
- Martín, A. D., L. M. Martínez, J. W. Chanes, and Z. E. Avellaneda. 2021. Induced changes in aroma compounds of foods treated with high hydrostatic pressure: a review. *Foods*. 10(4):1-23.
- Mata, M., O. Gonzalez, D. Pedrero, A. Monroy, and O. Angulo. 2007. Correlation between personality traits and discriminative ability of a sensory panel. *Cienciay Tecnología Alimentaria*. 5(4):252-258.
- Mathew, R., D. Jaganathan, and S. Anandakumar. 2016. Effect of vacuum packaging method on shelf life of chicken. *Imperial Journal of Interdisciplinary Research*. 2(10):1859-1866.

- Melton, L., F. Shahidi, and P. Varelis. 2019. Encyclopedia of Food Chemistry. Elsevier, Amsterdam.
- Milijasevic, J. B., M. Milijasevic, and V. Djordjevic. 2019. Modified atmosphere packaging of fish – an impact on shelf life. IOP Conf. Series: Earth and Environmental Science. 333:1-9.
- Monteiro, M. F., J. S. D. Aguila, C. D. O. Pessoa, and R. A. Kluge. 2017. Vacuum packaging is efficient to remove astringency and to maintain the firmness of ‘glombo’ persimmon. Brazilian Magazine of Fruit Culture. 39:1-6.
- Mueller, H. J. 2013. Measuring the elastic properties of natural rocks and mineral assemblages under earth’s deep crustal and mantle conditions. Journal of Geodynamics. 71:25-42.
- Muhlisin, Panjono, D. S. Kim, Y. R. Song, S. J. Lee, J. K. Lee, and S. K. Lee. 2014. Effects of gas composition in the modified atmosphere packaging on the shelf-life of longissimus dorsi of korean native black pigs-duroc crossbred during refrigerated storage. Asian-Australas Journal Animal Science. 27(8):1157-1163.
- Mullan, M. and D. McDowell. 2011. Modified Atmosphere Packaging in Food and Beverage Packaging Technology. Blackwell Publishing, New Jersey.
- Mulyawan, I. B., B. R. Handayani, B. Dipokusumo, W. Werdiningsih, dan A. I. Siska. 2019. Pengaruh teknik pengemasan dan jenis kemasan terhadap mutu dan daya simpan ikan pindang bumbu kuning. Jurnal Pengolahan Hasil Perikanan Indonesia. 22(3):464-475.
- Mulyawanti, I., E. Djaifullah, dan D. Amiarsi. 2017. Teknologi pengemasan atmosfer termodifikasi (modified atmosphere packaging/MAP) dan vakum pada buah durian. Jurnal Penelitian Pascapanen Pertanian. 14(1):1-10.
- Nasir, A., D. Dasir, dan S. Patimah. 2019. Nilai sensoris aroma dan rasa pempek dari jenis olahan daging ikan patin (*Pangasius pangasius*) dan perbandingan tepung tapioka. Jurnal Penelitian Ilmu-Ilmu Teknologi Pangan. 8(1):1-11.
- Natsir, H., S. Dali, N. Fattah, dan M. Nadir. 2013. Enzymatic production of chitosan from the white shrimp waste (*Penaeus merguensis*) and its applications as preservatives in fishery products. The 2nd International Conference of the Indonesian Chemical Society 2013.
- Nasution, Z., M. Ilza, dan M. I. Sari. 2017. Studi pengemasan vakum dan non vakum terhadap mutu bakso ikan malong (*Muarenesox talabon*) selama penyimpanan suhu dingin ($\pm 5^{\circ}\text{C}$). Jurnal Perikanan dan Kelautan Universitas Riau. 4(1):1-8.
- Nayma, K., K. C. Das, E. J. Alice, M. F. Mehub, and M. T. Islam. 2020. Extension of shelf-life of ready-to-cook (RTC) pangas fish (*Pangasianodon hypophthalmus*) curry by

modified atmosphere packaging at chilled storage. IOP Conf. Series: Earth and Environmental Science 414.

- Nisty, M. 2021. Aneka Macam Pempek. <[https://mediatani.co/inilah-4-jenis-ikan-yang-cocok-untuk-dibuat-pempek/](https://mediatani.co/inilah-4-jenis-ikan-yang-cocok-untuk-dibuat-pempek/aneka-macam-pempek/)>. Diakses 8 November 2022.
- Nofreeana, A., A. Masi, dan I. M. Deviarni. 2017. Pengaruh pengemasan vakum terhadap perubahan mikrobiologi, aktivitas air dan pH pada ikan pari asap. Jurnal Teknologi Pangan. 8(1):66-73.
- Novianti, E., Suparmi, dan Desmelati. 2019. Studi formulasi pempek ikan jelawat (*Leptobarbus haovenii*) dengan penambahan tepung sagu berbeda terhadap penerimaan konsumen. Jurnal Online Mahasiswa Universitas Riau. 6:1-10.
- Nyitrai, A., A. Urbin, B. V. Nagy, and L. Sipos. 2022. Novel approach in sensory color masking: effects of colored environments on chocolates with different cocoa content. Food Quality and Preference. 95:1-11.
- Ohaus. 2016. Your Guide to Moisture Analysis. <[https://us.ohaus.com/en-us/about-us/news/your-guide-to-moisture-analysis-\(1\)](https://us.ohaus.com/en-us/about-us/news/your-guide-to-moisture-analysis-(1))>. Diakses 28 Mei 2022.
- Oktaviani, N. D. 2009. Hubungan lamanya pemanasan dengan kerusakan minyak goreng curah ditinjau dari bilangan peroksida. Jurnal Biomedika. 1(1):31-35.
- Ozogul, F., K. D. A. Taylor, P. Quantick, and Y. Ozogul. 2002. Biogenic amines formation in Atlantic herring (*Clupea harengus*) stored under modified atmosphere packaging using a rapid HPLC method. International Journal of Food Science and Technology. 37:515-522.
- Özyurt, G., S. Gökdoğan, A. Şimşek, I. Yuvka, M. Ergüven, and E. K. Boga. 2015. Fatty acid composition and biogenic amines in acidified and fermented fish silage: a comparison study. Archives of Animal Nutrition. 70(1):72-86.
- Palmeira, K. B., E. T. Mársico, L. Doro, M. Lemos, C. E. Teixeira, V. M. F. Paschoalin, M. L. G. Monteiro, and C. A. C. Júnior. 2014. Quality of semi-prepared products from rainbow trout waste (*Oncorhynchus mykiss*) by using different technological strategies. Food and Nutrition Sciences. 5:571:580.
- Pardede, E. 2020. Pengemasan buah dan sayur dengan atmosfir termodifikasi. Jurnal Visi Eksakta. 1(1):11-20.
- Pellegrino, R., J. Wheeler, C. E. Sams, and C. R. Luckett. 2019. Storage time and temperature on the sensory properties broccoli. Foods. 8:1-12.
- Perdana, I. A., A. Husni, dan L. Sahubawa. 2019. Aktivitas anti-bakteri ekstrak *Turbinara conoides* dan pengaruhnya dalam meningkatkan daya simpan filet nila merah pada suhu dingin. Jurnal Perikanan Universitas Gadjah Mada. 21(1):1-7.

- Pongsetkul, J. and S. Benjakul. 2021. Development of modified atmosphere packaging (MAP) on shelf-life extension of *pla-duk-ra* (dried fermented catfish) stored at room temperature. *Food Control*. 124:1-12.
- Prasetyo, T. F., A. F. Isdiana, and H. Sujadi. 2020. Measure device of water content on food materials based on internet of things. *International Journal of Information System & Technology*. 3(2):234-245.
- Pratama M., E. Warsiki, dan L. Haditjaroko. 2016. Kinerja label untuk memprediksi umur simpan pempek pada berbagai kondisi penyimpanan. *Jurnal Teknologi Industri Pertanian* 26(3): 321-332.
- Pratiwi, S. S., F. Swastawati, A. S. Fahmi. 2019. Pengaruh kandungan asap cair terhadap oksidasi lemak ikan teri galer (*Stolephorus indicus*) asin kering selama penyimpanan suhu ruang. *Jurnal Ilmu dan Teknologi Perikanan*. 1(2):30-38.
- Pursudarsono, F., D. Rosyidi, A. S. Widati. 2015. Pengaruh perlakuanimbangan garam dan gula terhadap kualitas dendeng paru-paru sapi. *Jurnal Ilmu dan Teknologi Hasil Ternak*. 10(1):35-45.
- Purwaningsih, S., R. Garwan, dan J. Santoso. 2011. Karakteristik organoleptik bakasang jeroan cakalang (*Katsuwonus pelamis*, lin) sebagai pangan tradisional Maluku Utara. *Journal of Nutrition and Food*. 6(1):13-17.
- Qian, Y. F., C. C. Liu, J. J. Zhang, P. Ertbjerg, and S. P. Yang. 2022. Effects of modified atmosphere packaging with varied CO₂ and O₂ concentrations on the texture, protein, and odor characteristics of salmon during cold storage. *Foods*.11:1-14.
- Rahimpour, M. R., M. Farsi, and M. A. Makarem. 2020. *Advances in Carbon Capture*. Woodhead Publishing, Swaston.
- Remel. 2010. Phospate Buffer (Butterfield's Buffer). Technical Data Sheet Remel.
- Renate, D. 2009. Pengemasan puree cabe merah dengan berbagai jenis plastik yang dikemas vakum. *Jurnal Teknologi Industri dan Hasil Pertanian*. 14(1):80-89.
- Ririsanti, N. N., E. Liviawaty, Y. N. Ihsan, dan R. I. Pratama. 2017. Penambahan karagenan terhadap tingkat kesukaan pempek lele. *Jurnal Perikanan dan Kelautan*. 8(1):165-173.
- Riyandi, D. F., Y. K. Sya'di, dan Nurhidajah. 2022. Total bakteri, angka TBA, dan sifat sensoris bumbu dasar putih pasta berdasarkan lama simpan. *Jurnal Pangan dan Gizi*. 12(1):41-49.
- Romalasari, A., W. E. Rahayu, dan H. Azzahra. 2019. Perbandingan tepung sagu dan jenis ikan yang berbeda terhadap kualitas pempek. *Jurnal Ilmiah Ilmu dan Teknologi Rekayasa*. 2(2):118-121.

- Rotronic AG, 2014. Hygropalm HP23-A/HP23-AW-A Hand-Held Indicator User Guide. Rotronic AG, Switzerland.
- Rustagi, A. 2020. Food texture and its perception, acceptance and evaluation. Biosciences Biotechnology Research Asia. 17(3):651-658.
- Safefood 360. 2014. Water Activity (A_w) In Foods. Safefood 360 Inc, Ireland.
- Safitri, A. N. 2021. Aplikasi *modified atmosphere packaging* pempek tenggiri dan barakuda pada penyimpanan suhu ruang. Fakultas Pertanian. Universitas Gadjah Mada. Skripsi.
- Sakinah, B. Hasan, dan T. Leksono. 2016. Evaluasi masa simpan fillet ikan baung (*Hemibagrus nemurus*) hasil budidaya yang disimpan pada suhu 5°C dan 10°C. Jurnal Teknologi Hasil Perikanan Universitas Riau. 6(1):1-11.
- Sakti, H., S. Lestari, dan A. Supriadi. 2016. Perubahan mutu ikan gabus (*Channa striata*) asap selama penyimpanan. Jurnal Teknologi Hasil Perikanan. 5(1):11-18.
- Samples, S. 2014. The effects of storage and preservation technologies on the quality of fish products : a review. Journal of Food Processing and Preservation. 39(6):1206-1215.
- Sandulachi, E. 2012. Water activity concept and its role in food preservation. Meridian Ingenieresc. 4:40-48.
- Sandulachi, E. and P. Tatarov. 2012. Water activity concept and its role in strawberries food. Chemistry Journal of Moldova. 7(2):103-115.
- Sanjaya, D. B., dan A. Alahanannasir. 2018. Mempelajari frekuensi pencucian surimi terhadap nilai sensoris pempek ikan tenggiri pasir (*Scomberomorus guttatus*) yang dihasilkan. Jurnal Penelitian Ilmu-Ilmu Teknologi Pangan. 7(1):12-32.
- Saputri, N. E., N. Hidayah, dan Y. S. Muttalib. 2021. Komposisi nilai gizi pempek ikan tenggiri (*Scomberomorus commersonii*) dengan penambahan wortel (*Daucus carota*). Jurnal Ilmu Kesehatan. 15(2):143-149.
- Sari, J. Triastuti, H. Pramono, and Sudarno. 2020. Comparative study of marine fish freshness based on the handling method in puncak permai modern market and simo gunung traditional market, surabaya. IOP Conference Series: Earth and Environmental Science. 441:1-5.
- Schaich, K. M. 2016. Analysis of Lipid and Protein Oxidation in Fats, Oils, and Foods in Oxidative Stability and Shelf Life of Foods Containing Oils and Fats. AOCS Press, Colorado.
- Scharlau Microbiology. 2011. Plate Count Agar (PCA). Technical Data Sheet Scharlau Microbiology.

- ScienceDaily. 2012. Fried Food Risks : Toxic Aldehydes Detected in Reheated Oil. <<https://www.sciencedaily.com/releases/2012/02/120222093508.htm>>. Diakses 21 September 2022.
- Senoaji, F. B., T. W. Agustini, dan L. Purnamayati. 2017. Aplikasi minyak atsiri rimpang lengkuas pada *edible coating* karagenan sebagai antibakteri pada bakso ikan nila. Jurnal Pengolahan Hasil Perikanan Indonesia. 20(2):380-391.
- Sianipar, E. H. 2010. Pengaruh Pengemasan Atmosfer Termodifikasi pada *Fillet* Ikan Patin (*Pangasius Hypophthalmus*) dalam Penyimpanan Suhu Ruang dan Suhu Dingin. Fakultas Perikanan dan Ilmu Kelautan Institut Pertanian Bogor. Skripsi.
- Silvestri, A. D., E. Ferrari, S. Gozzi, F. Marchi, and R. Foschino. 2018. Determination of temperature dependent growth parameters in psychrotrophic pathogen bacteria and tentative use of mean kinetic temperature for the microbiological control of food. *Frontiers in Microbiology*. 9:1-12.
- Silvia, D., A. P. Dewi, dan Zulkarnain. 2021. Jenis dan teknik pengemasan terhadap kualitas bakso aci dengan penyimpanan suhu dingin. *Media Komunikasi Rekayasa Proses dan Teknologi Tepat Guna*. 17(2):41-48.
- Sinharoy, P., S. L. McAllister, M. Vasu, and E. R. Gross. 2019. Environmental aldehyde sources and the health implications of exposure. *Advances in Experimental Medicine and Biology*. 1193:35-52.
- Sinkinson, C. 2017. Triangle Test in Discrimination Testing in Sensory Science A Practical Handbook. Elsevier, Amsterdam.
- Sitepu, M. A. K., H. W. Mewengkang, D. M. Makapedua, L. Damongilala, E. Mongi, F. Mentang, dan V. Dotulong. 2020. Kajian mutu bakso ikan tuna yang disubstitusi tepung karagenan. *Media Teknologi Hasil Perikanan*. 8(1):31-38.
- Sivertsvik, M., W. K. Jeksrud, and J. T. Rosnes. 2002. A review of modified atmosphere packaging of fish and fishery products – significance of microbial growth, activities and safety. *International Journal Of Food Science And Technology*. 37(2):107-127.
- Skandamis, P. N. and G. J. E. Nychas. 2001. Effect of oregano essential oil on microbiological and physico-chemical attributes of minced meat stored in air and modified atmospheres. *Journal of Applied Microbiology*. 91:1011-1022.
- Sochor, J., B. R. Nedecky, P. Babula, V. Adam, J. Hubalek, and R. Kizek. 2012. Automation of Methods for Determination of Lipid Peroxidation. Intech Open, London.
- Soeparno. 2010. Ilmu dan Teknologi Daging. Gadjah Mada University Press, Yogyakarta.
- Soltani, M., R. Alimardani, H. Mobli, and S. S. Mohtasebi. 2015. Modified atmosphere packaging: a progressive technology for shelf-life extension of fruits and vegetables. *Journal of Applied Packaging Research*. 7(3):33-59.

- Sopik, T., Z. Lazarkova, L. Bunkova, K. Purevdorj, R. N. Salek, J. Talar, M. Novotny, P. Foltin, V. Pachlova, E. Bunka. 2022. Impact of long-term storage on the quality of selected sugar-based foods stored at different temperatures. *Food Science and Technology*. 157:1-10.
- Souza, G. P. M. D., E. G. R. D. Anjos, L. S. Montagna, O. Ferro, and F. R. Passador. 2019. A new strategy for the use of post-processing vacuum bags from aerospace supplies: nucleating agent to LLDPE phase in PA6/LLDPE blends. *Recycling*. 4(2):1-15.
- Squires, E. J., E. V. Valdes, J. Wu, and S. Leeson. 1990. Research note: utility of the thiobarbituric acid test in the determination of the quality of fats and oils in feeds. *Poultry Science*. 70(1):180-183.
- Srihidayati, G. dan E. Firmadayanti. 2021. Formulasi dan uji organoleptik otak-otak ikan cakalang (*Katsuwonus pelamis*) dengan berbagai konsentrasi tepung penstabil. *Jurnal Pertanian Berkelanjutan*. 9(2):123-131.
- Stahlke, E. V. R., L. S. Rossa, G. M. Silva, C. S. Sotomaior, A. J. Pereira, F. B. Luciano, T. D. Borges, and R. E. F. D. M. 2019. Effects of modified atmosphere packaging (MAP) and slaughter age on the shelf life of lamb meat. *Food Science Technology*. 39(2):328-335.
- Sucan, M. K. 2004. Identifying and preventing off-flavors. *IFT Food Technology Magazine*. 58(11):1-12.
- Sucipta, I. N., K. Suriasih, dan P. K. D. Kencana. 2017. *Pengemasan Pangan Kajian Pengemasan yang Aman, Nyaman, Efektif dan Efisien*. Udayana University Press, Bali.
- Sugiyanti, D. 2015. Pemanfaatan teknologi kemas map (*modified atmosphere packaging*) untuk peningkatan ekonomi produktif masyarakat penghasil tepung mocaf (*modified cassava flour*) di Desa Meteseh Kec. Boja Kab. Kendal. *Jurnal Pemikiran Agama untuk Pemberdayaan*. 15(1):1-18.
- Sumarlin, L. O. 2008. Aktivitas protease dari *Bacillus circulans* pada media pertumbuhan dengan pH tidak terkontrol. *Jurnal Valensi*. 1(2):58-62.
- Susanto, E., T. W. Agustini, F. Swastawato, T. Surti, A. S. Fahmi, M. F. Albar, dan M. K. Nafis. 2011. Pemanfaatan bahan alami untuk memperpanjang umur simpan ikan kembung (*Rastrelliger neglectus*). *Jurnal Perikanan*. 13(2):60-69.
- Sutiko, A. Sampurno, A. N. Cahyanti, dan D. Larasati. 2020. Pengaruh lama pemanasan lumpia basah kemas non vakum terhadap TPC, pH, Aw dan sensori selama penyimpanan suhu ruang. *Jurnal Teknologi Pangan dan Hasil Pertanian*. 15(1):28-33.
- Talib, A. dan T. Marlina. 2015. Karakteristik organoleptik dan kimia produk empek-empek ikan cakalang. *Jurnal Ilmiah agribisnis dan Perikanan*. 8(1):50-59.

- Tavares, J., A. Martins, L. G. Fidalgo, V. Lima, R. A. Amaral, C. A. Pinto, A. M. Silva, and J. A. Saraiva. 2021. Fresh fish degradation and advances in preservation using physical emerging technologies. *Foods*. 10(4):1-20.
- Tomasini, A. and H. H. L. Santiesteban. 2015. *Nylon Uses in Biotechnology in Biocomposites: Design and Mechanical Performance*. Elsevier, Amsterdam.
- Tsironi, T., A. Ntzimani, E. Gogou, M. Tsevdou, I. Semenoglou, E. Dermesonlouoglou, and P. Taoukis. 2019. Modeling the effect of active modified atmosphere packaging on the microbial stability and shelf life of gutted sea bass. *Application Science*. 9:1-17.
- Utto, W., R. Pruthikul, S. Nutthi, and N. Phungam. 2017. Change in oxygen permeability of plastic vacuum bags containing germinated brown and parboiled germinated rice. *International Food Research Journal*. 24(4):1571-1578.
- Vieira, P. H. D. S., C. N. D. Barros, E. S. Mendes, M. I. S. Maciel, H. A. D. Andrade, and P. R. C. D. O. Filho. 2019. Development and characterization of fresh sausages made with marine catfish *Sciades herzbergii*. *Science, Food Technology and Food Engineering*. 41:1-9.
- Vijayakumar, P. P. and A. Adedeji. 2017. *Measuring the pH of Food Products*. University of Kentucky College of Agriculture, Food and Environment Cooperative Extension Service.
- Warsiki, E., T. C. Sunarti, dan L. Nurmala. 2013. Kemasan antimikrob untuk memperpanjang umur simpan bakso ikan. *Jurnal Ilmu Pertanian Indonesia*. 18 (2):125-131.
- Widiastiti, I. G. A. A. M., I. W. W. P. Putra, A.S. Duniaji, dan L. P. Darmayanti. 2019. Analisis potensi beberapa larutan pengencer pada uji antibakteri teh temu putih (*Curcuma zedoaria* (berg.) Roscoe) terhadap *Escherichia coli*. *Media Ilmiah Teknologi Pangan*. 6(2):117-125.
- Winarno, F. G. 1991. *Kimia Pangan dan Gizi*. PT Gramedia Pustaka Utama, Jakarta.
- Won, M. P., R. L. Mondaca, C. H. Lavados, J. E. Reyes, T. Roco, A. P. Acevedo, G. T. Munizaga, and S. P. Aubourg. 2020. Combined treatments of high hydrostatic pressure and CO₂ in Coho salmon (*Oncorhynchus kisutch*): effects on enzyme inactivation, physicochemical properties, and microbial shelf life. *Foods*. 9:1-16.
- Xu, J., J. Tang, Y. Jin, J. Song, R. Yang, S. S. Sablani, and M. J. Zhu. 2019. High temperature water activity as a key factor influencing survival of *Salmonella enteritidis* Pt30 in thermal processing. *Food Control*. 98:520-528.
- Yilmaz, I. and M. Demirci. 2010. Effect of different packaging methods and storage temperature on microbiological and physicochemical quality characteristics of meatball. *Food Science and Technology International*. 16(3):259-265.

- Yunita, M., Y. Hendrawan, dan R. Yulianingsih. 2015. Analisis kuantitatif mikrobiologi pada makanan penerbangan (aerofood ACS) garuda indonesia berdasarkan TPC (total plate count) dengan metode pour plate. *Jurnal Keteknikan Pertanian Tropis dan Biosistem*. 3(3):237-248.
- Zambranoa, M. V., B. Duttaa, D. G. Mercerb, H. L. MacLeana, and M. F. Touchiea. 2019. Assessment of moisture content measurement methods of dried food products in small-scale operations in developing countries: a review. *Trends in Food Science & Technology*. 88:484-496.
- Zega, O., A. Baehaki, dan Herpandi. 2017. Pengaruh ekstrak apu-apu (*Pistia straiotes*) terhadap daya simpan *fillet* ikan patin (*Pangasius* sp.) yang disimpan pada suhu dingin. *Jurnal Teknologi Hasil Perikanan*. 6(1):66-79.