

DAFTAR PUSTAKA

- Addion, N. (2020). Karakteristik ekstrak kulit buah naga merah (*hylocereus polyrhizus*) dengan penambahan berbagai konsentrasi asam sitrat sebagai pewarna alami makanan. *Jurnal Teknologi Industri Pertanian*, 228–233. <https://doi.org/10.24961/j.tek.ind.pert.2020.30.2.228>
- Afiatna, P., Wening, D. K., Mulyasari, I., Maryanto, S., & Puspitasari, A. (2025). *Daya terima soygurt pada siswa sekolah dasar di wilayah ungaran barat sebagai jajanan sehat berbasis pangan lokal*.
- Agustin, A. R., Widanti, Y. A., & Karyantina, M. (2022). Karakteristik fisikokimia dan sensoris mochi bit (*beta vulgaris* L.) dengan variasi rasio tepung kacang hijau (*vigna radiata* L.) tepung ketan. *JITIPARI (Jurnal Ilmiah Teknologi dan Industri Pangan UNISRI)*, 7(1), 40–48. <https://doi.org/10.33061/jitipari.v7i1.6109>
- Agustina, L., Irnandini, W., & Astuti, B. D. (n.d.). *Formulasi nutrasetikal sediaan gummy CandyPureeLabu kuning (curcuma moschata) dengan variasi kadar gelatin dan evaluasi sediaan*. 2019.
- Aini, A. N., W, A. A., Ginting, D. G., Aminulloh, G. A., M, O. P., & Rahmandah, S. R. (2024). Karakteristik dan aktivitas antioksidan permen jeli kombucha daun sirsak (*annona muricata* linn). *WARTA AKAB*, 48(1). <https://doi.org/10.55075/wa.v48i1.215>
- Aliya, N. N., Riyanta, A. B., & Muldiyana, T. (2024). Uji aktivitas antioksidan ekstrak kulit dan daging buah naga merah (*hylocereus polyrhizus*) dan penentuan parameter non spesifik. *Jurnal Riset Kefarmasian Indonesia*, 6(1).
- AL-Smadi, K., Ali, M., Zhu, J., Abdoh, A., Phan, K., & Mohammed, Y. (2025). Advances in characterization of transdermal and topical products using texture analyzer systems. *AAPS PharmSciTech*, 26(5), 157. <https://doi.org/10.1208/s12249-025-03148-x>
- Andrade, D. K. A., Wang, B., Lima, E. M. F., Shebeko, S. K., Ermakov, A. M., Khramova, V. N., Ivanova, I. V., Rocha, R. D. S., Vaz-Velho, M., Mutukumira, A. N., & Todorov, S. D. (2025). Kombucha: An old tradition into a new concept of a beneficial, health-promoting beverage. *Foods*, 14(9), 1547. <https://doi.org/10.3390/foods14091547>
- Apriliyanti, M. W., Nurdihati, A., & Ardiyansyah, M. (2020). Pendugaan umur simpan jelly kelor instan dengan metode accelerated shelf life test (ASLT) model pendekatan kadar air kritis. *Journal of Food Technology and Agroindustry*, 2(2), 54–63. <https://doi.org/10.24929/jfta.v2i2.967>

- Badan Standardisasi Nasional. (2008). *Standar nasional indonesia kembang gula lunak (jelly) SNI 3547.2:2008* (SNI 3547.2:2008). Badan Standardisasi Nasional.
- BeMiller, J. N., & Whistler. (2009). *Starch: Chemistry and technology* (3rd ed.). Academic Press.
- Beuchat, L. R., Komitopoulou, E., Beckers, H., Betts, R. P., Bourdichon, F., Fanning, S., Joosten, H. M., & Ter Kuile, B. H. (2013). Low--water activity foods: Increased concern as vehicles of foodborne pathogens. *Journal of Food Protection*, 76(1), 150–172. <https://doi.org/10.4315/0362-028X.JFP-12-211>
- Bortnowska, G., Krudos, A., Schube, V., Krawczyńska, W., Krzemińska, N., & Mojka, K. (2016). Effects of waxy rice and tapioca starches on the physicochemical and sensory properties of white sauces enriched with functional fibre. *Food Chemistry*, 202, 31–39. <https://doi.org/10.1016/j.foodchem.2016.01.077>
- Budilaksono, W., Wahdaningsih, S., & Fahrurroji, A. (2014). Uji aktivitas antioksidan fraksi n-heksana kulit buah naga merah (*Hylocereus lemairei* Britton dan Rose) menggunakan metode DPPH (1,1-difenil-2-pikrilhidrazil). *Jurnal Mahasiswa Farmasi Fakultas Kedokteran UNTAN*.
- Burey, P., Bhandari, B. R., Rutgers, R. P. G., Halley, P. J., & Torley, P. J. (2009). Confectionery gels: A review on formulation, rheological and structural aspects. *International Journal of Food Properties*, 12(1), 176–210. <https://doi.org/10.1080/10942910802223404>
- Calixto, S., Ganzherli, N., Gulyaev, S., & Figueroa-Gerstenmaier, S. (2018). Gelatin as a photosensitive material. *Molecules*, 23(8), 2064. <https://doi.org/10.3390/molecules23082064>
- Calligaris, S., Manzocco, L., Anese, M., & Nicoli, M. C. (2019). Accelerated shelf life testing. In *Food Quality and Shelf Life* (pp. 359–392). Elsevier. <https://doi.org/10.1016/B978-0-12-817190-5.00012-4>
- Chakravorty, S., Bhattacharya, S., Chatzinotas, A., Chakraborty, W., Bhattacharya, D., & Gachhui, R. (2016). Kombucha tea fermentation: Microbial and biochemical dynamics. *International Journal of Food Microbiology*, 220, 63–72. <https://doi.org/10.1016/j.ijfoodmicro.2015.12.015>
- Chandra, M. A., Rakhmatullah, A. N., & Fauzana, E. (2025). *Formulasi gummy candies belimbing wuluh kombinasi lemon dengan variasi konsentrasi daun cincau hijau*. 25.
- Chou, Y.-C., Lin, H.-W., Wang, C.-Y., Hsieh, C.-C., Santoso, S. P., Lin, S.-P., & Cheng, K.-C. (2024). Enhancing Antioxidant Benefits of Kombucha Through Optimized Glucuronic Acid by Selected Symbiotic Fermentation

- Culture. *Antioxidants*, 13(11), 1323. <https://doi.org/10.3390/antiox13111323>
- Chrisella, A., Kusumawati, N., & Suseno, T. I. P. (2015). The influence different addition of eucheuma cottonii seaweed and gelatin with various concentration on physicochemical and organoleptic characteristic seaweed jelly candy. *Jurnal Teknologi Pangan dan Gizi*, 14(1), 38–45.
- Copeland, L., Blazek, J., Salman, H., & Tang, M. C. (2009). Form and functionality of starch. *Food Hydrocolloids*, 23(6), 1527–1534. <https://doi.org/10.1016/j.foodhyd.2008.09.016>
- De Bouillé, A. G., & Beeren, C. J. M. (2016). Sensory evaluation methods for food and beverage shelf life assessment. In *The Stability and Shelf Life of Food* (pp. 199–228). Elsevier. <https://doi.org/10.1016/B978-0-08-100435-7.00007-1>
- Değirmencioğlu, N., Yıldız, E., Sahan, Y., Güldas, M., & Gürbüz, O. (2021). Impact of tea leaves types on antioxidant properties and bioaccessibility of kombucha. *Journal of Food Science and Technology*, 58(6), 2304–2312. <https://doi.org/10.1007/s13197-020-04741-7>
- Deng, G., Guo, S., Zaman, F., Li, T., & Huang, Y. (2020). Recent advances in animal origin identification of gelatin-based products using liquid chromatography-mass spectrometry methods: A mini review. *Reviews in Analytical Chemistry*, 39(1), 260–271. <https://doi.org/10.1515/revac-2020-0121>
- Dobson, S., Laredo, T., & Marangoni, A. G. (2022). Particle filled protein-starch composites as the basis for plant-based meat analogues. *Current Research in Food Science*, 5, 892–903. <https://doi.org/10.1016/j.crfs.2022.05.006>
- Fikriyah, Y. U., & Nasution, R. S. (2022). Analisis kadar air dan kadar abu pada teh hitam yang dijual di pasaran dengan menggunakan metode gravimetri. *AMINA*, 3(2), 50–54. <https://doi.org/10.22373/amina.v3i2.2000>
- Fitria, A., & Yuliawati, K. M. (2022). Penelusuran pustaka potensi aktivitas antioksidan dan serat pangan kulit buah naga merah (hylocereus polyrhizus) serta pemanfaatannya dalam pangan fungsional. *Bandung Conference Series: Pharmacy*, 2(2). <https://doi.org/10.29313/bcsp.v2i2.4583>
- Gómez-Guillén, M. C., Giménez, B., López-Caballero, M. E., & Montero, M. P. (2011). Functional and bioactive properties of collagen and gelatin from alternative sources: A review. *Food Hydrocolloids*, 25(8), 1813–1827. <https://doi.org/10.1016/j.foodhyd.2011.02.007>
- Gong, Y., Xiao, S., Yao, Z., Deng, H., Chen, X., & Yang, T. (2024). Factors and modification techniques enhancing starch gel structure and their applications in foods: A review. *Food Chemistry: X*, 24, 102045. <https://doi.org/10.1016/j.fochx.2024.102045>

- Goudie, K. J., McCreath, S. J., Parkinson, J. A., Davidson, C. M., & Liggat, J. J. (2023). Investigation of the influence of pH on the properties and morphology of gelatin hydrogels. *Journal of Polymer Science*, 61(19), 2316–2332. <https://doi.org/10.1002/pol.20230141>
- Gumanti, Z., Salsabila, A. P., & Sihombing, M. E. (2023). *PENGARUH LAMA FERMENTASI TERHADAP MUTU ORGANOLEPTIK PADA PROSES PEMBUATAN KOMBUCHA SARI KULIT BUAH NAGA MERAH (Hylocereus polyrhizus) THE EFFECT OF FERMENTATION PERIOD ON ORGANOLEPTIC GRADE IN THE PROCESS OF MAKING RED DRAGON FRUIT*.
- Habibah, I., & Mahadi, I. (2016). The effect of variation of tea (*Camellia sinensis* L. Kuntze) processing and sugar concentration. *Jurnal Biogenesis*, 4(1), 1–13.
- Hakim, M. R. A., Putri, F., & Dzaky, M. I. (2025). *Analisa laju perpindahan panas pada mesin pengering biji kopi*. 11(2).
- Handayani, S. D., Purnamayati, L., Sumardianto, Suharto, S., & Arifin, M. H. (2024). Characterization of jelly candy with different percentage of gelatin from patin fish skin (*pangasius pangasius*). *Journal of Advances in Food Science & Technology*, 11(3), 1–16. <https://doi.org/10.56557/jafsat/2024/v11i38711>
- Hanzen, W. F. E., Hastuti, U. S., & Lukiat, B. (2016). *Kualitas yoghurt dari kulit buah naga berdasarkan variasi spesies dan macam gula ditinjau dari tekstur, aroma, rasa dan kadar asam laktat*. 13.
- Hardoko, Saputra, T. I., & Anugrahati, N. A. (2013). Karakteristik kwetiau yang ditambah tepung tapioka dan rumput laut *Gracilaria gigas* Harvey. *Jurnal Perikanan dan Kelautan*, 18(2).
- Hasanah, U., Ulya, M., & Purwandari, U. (2020). Pengaruh penambahan tempe dan tepung tapioka terhadap karakteristik fisikokimia dan hedonik nugget nangka muda (*Artocarpus heterophyllus* Lamk.). *Jurnal Pangan dan Agroindustri*, 8(3), 154–162. <https://doi.org/10.21776/ub.jpa.2020.008.03.5>
- Herawati, H., & Kamsiati, E. (2022). The characteristics of low sugar jelly made from porang flour and agar. *IOP Conference Series: Earth and Environmental Science*, 1024(1), 012019. <https://doi.org/10.1088/1755-1315/1024/1/012019>
- Hsieh, C.-F., Liu, W., Whaley, J. K., & Shi, Y.-C. (2019). Structure, properties, and potential applications of waxy tapioca starches – a review. *Trends in Food Science & Technology*, 83, 225–234. <https://doi.org/10.1016/j.tifs.2018.11.022>

- Hu, A., Liu, Y., & Wu, S. (2024). A review on polysaccharide-based jelly: Gell food. *Food Chemistry: X*, 23, 101562. <https://doi.org/10.1016/j.fochx.2024.101562>
- Huang, H.-K., Sheu, H.-S., Chuang, W.-T., Jeng, U.-S., Su, A.-C., Wu, W.-R., Liao, K.-F., Chen, C.-Y., Chang, S.-Y., & Lai, H.-M. (2014). Correlated changes in structure and viscosity during gelatinization and gelation of tapioca starch granules. *IUCrJ*, 1(6), 418–428. <https://doi.org/10.1107/S2052252514019137>
- Hussein, A. S., Rezaldi, F., Zubaidah, E., Wijayanti, W., Fadillah, M. F., Fathurrohim, M. F., Rahmad, S. S., Wijayanti, F. E. R., Wati, D. R., & Cahyono, A. T. (2024). Biochemical characteristics of the formulation and preparation of telang flower kombucha jelly as an antioxidant, food and pharmaceutical biotechnology products. *Journal of Health and Nutrition Research*, 3(3), 192–200. <https://doi.org/10.56303/jhnresearch.v3i3.287>
- Jayabalan, R., Malbaša, R. V., Lončar, E. S., Vitas, J. S., & Sathishkumar, M. (2014). A review on kombucha tea—Microbiology, composition, fermentation, beneficial effects, toxicity, and tea fungus. *Comprehensive Reviews in Food Science and Food Safety*, 13(4), 538–550. <https://doi.org/10.1111/1541-4337.12073>
- Kadhim, Z. M., & Ali, W. K. (2019). Preparation and evaluation of granisetron chewable pediatric oral jelly. *International Journal of Drug Delivery Technology*, 9(o3). <https://doi.org/10.25258/ijddt.v9i3.4>
- Kaewpetch, K., Yolsuriyan, S., Disayathanooowat, T., Phokasem, P., Jannu, T., Renaldi, G., & Samakradhamrongthai, R. S. (2024). Influence of gelatin and propolis extract on honey gummy jelly properties: Optimization using D-optimal mixture design. *Gels*, 10(4), 282. <https://doi.org/10.3390/gels10040282>
- Karim, A. A., & Bhat, R. (2009). Fish gelatin: Properties, challenges, and prospects as an alternative to mammalian gelatins. *Food Hydrocolloids*, 23(3), 563–576. <https://doi.org/10.1016/j.foodhyd.2008.07.002>
- Konar, N., Khiabani, A. H., Atar, H. H., Polat, D. G., Durmaz, Y., & Mert, B. (2025). Potential application of the encapsulated microalgae biomass as an innovative ingredient in gummy formulation. *Journal of Food Measurement and Characterization*, 19(8), 6095–6107. <https://doi.org/10.1007/s11694-025-03378-4>
- Kurniawan, H., Bintoro, N., & W.K., J. N. (2018). Pendugaan umur simpan gula semut dalam kemasan dengan pendekatan Arrhenius (Shelf life prediction of palm sugar on packaging using Arrhenius equation). *Jurnal Ilmiah Rekayasa Pertanian Dan Biosistem*, 6(1), 93–99. <https://doi.org/10.29303/jrpb.v6i1.68>

- Kusumaningrum, A., Parnanto, N. H. R., & Atmaka, W. (2016). *Study of the effects of carrageenan-konjac variation concentrations as gelling agent on the physical, chemical and sensory characteristics of yellow pumpkins (Cucurbita maxima) jelly candy*. (1).
- Kusumaningrum, S. B. C., Nurul Inayah, Khasanah Pangestuti, Ariffatur Rizki Asfarina, Nicola Putra Ristiono, & Dimas Erdianto. (2024). Karakteristik produk fermentasi kombucha dari teh hitam (*Camellia sinensis*), kayu secang (*Caesalpinia sappan* L.), jahe (*Zingiber officinale*) dan bunga telang (*Clitoria ternatea* L.). *Jurnal Sains dan Teknologi Pangan*, 9(4), 7535–7545. <https://doi.org/10.63071/tr4bt610>
- Labuza, T. P. (1982). *Shelf-life dating of foods*. Food and Nutrition Pr.
- Lamusu, D. (2018). Uji organoleptik jalangkote ubi jalar ungu (*Ipomoea batatas* L.) sebagai upaya diversifikasi pangan. *Jurnal Pengolahan Pangan*, 3(1), 9–15. <https://doi.org/10.31970/pangan.v3i1.7>
- Latrofa, V., De Angelis, D., Squeo, G., Caponio, F., Pasqualone, A., & Summo, C. (2026). Rheology and structure of gelatin-free jelly candies prepared with dry-fractionated pea and corn starches. *Food Hydrocolloids*, 170, 111757. <https://doi.org/10.1016/j.foodhyd.2025.111757>
- Laureys, D., Britton, S. J., & De Clippeleer, J. (2020). Kombucha tea fermentation: A review. *Journal of the American Society of Brewing Chemists*, 78(3), 165–174. <https://doi.org/10.1080/03610470.2020.1734150>
- Lekahena, V. N. J. (2016). Pengaruh penambahan konsentrasi tepung tapioka terhadap komposisi gizi dan evaluasi sensori nugget daging merah ikan madidihang. *Agrikan: Jurnal Agribisnis Perikanan*, 9(1), 1–8. <https://doi.org/10.29239/j.agrikan.9.1.1-8>
- Lerner, A., Freire De Carvalho, J., Fernanda Leal Dos Santos Ribeiro, M., & Benzvi, C. (2023). Kefir and kombucha for rheumatic disease: A systematic review. *International Journal of Celiac Disease*, 11(1), 1–3. <https://doi.org/10.12691/ijcd-11-1-1>
- Lestari, K. A. P., & Sa'adiyah, L. (2020). Comparison of Physical Characteristics of Kombucha Green Tea at Different Heating Times: Karakteristik Kimia dan Fisik Teh Hijau Kombucha pada Waktu Pemanasan yang Berbeda. *Journal Pharmasci (Journal of Pharmacy and Science)*, 5(1), 15–20. <https://doi.org/10.53342/pharmasci.v5i1.158>
- Lindriati, T., Praptiningsih, Y., & Wijayanti, D. F. (2014). Physical characteristics of edible film gel made under various pH and ratio of casein and tapioca. *Jurnal ILMU DASAR*, 15(1), 51. <https://doi.org/10.19184/jid.v15i1.614>
- Luthfiyanti, R., Iwansyah, A. C., Pamungkas, N. Y., & Triyono, A. (2020). Penurunan mutu senyawa antioksidan dan kadar air terhadap masa simpan

- permen hisap ekstrak daun ciplukan (*physalis angulata* linn.). *Jurnal Riset Teknologi Industri*, 14(1), 1. <https://doi.org/10.26578/jrti.v14i1.5343>
- Mahat, M. M., Mohmad Sabere, A. S., Shafiee, S. 'Arifin, Nawawi, M. A., Hamzah, H. H., Jamil, M. A. F. M., Che Roslan, N., Abdul Halim, M. I., & Safian, M. F. (2020). *The sensory evaluation and mechanical properties of functional gummy in the malaysian market*. MATERIALS SCIENCE. <https://doi.org/10.20944/preprints202010.0213.v1>
- Mahatan, C. A., Mahdiyah, & Alsuhendra. (2025). Penggunaan ekstrak wedang uwuh pada gummy candy terhadap analisa kekenyalan, ph, dan kualitas organoleptik. *Jurnal Review Dan Pengajaran*, 8(3).
- Marfil, P. H. M., Anhê, A. C. B. M., & Telis, V. R. N. (2012). Texture and microstructure of gelatin/corn starch-based gummy confections. *Food Biophysics*, 7(3), 236–243. <https://doi.org/10.1007/s11483-012-9262-3>
- Mierza, V., Dwiyanti, S. P., Mulidini, M., Granadha Nibullah, S., & Alya Abbas, Z. (2023). Pengembangan Formulasi Sediaan Gummy Candy dengan Variasi Konsentrasi Gelatin Sebagai Gelling Agent. *Journal of Pharmaceutical and Sciences*, 6(2), 649–654. <https://doi.org/10.36490/journal-jps.com.v6i2.102>
- Miranda, J. F. D., Ruiz, L. F., Silva, C. B., Uekane, T. M., Silva, K. A., Gonzalez, A. G. M., Fernandes, F. F., & Lima, A. R. (2022). Kombucha: A review of substrates, regulations, composition, and biological properties. *Journal of Food Science*, 87(2), 503–527. <https://doi.org/10.1111/1750-3841.16029>
- Mufida, R. T., Darmanto, Y. S., & Suharto, S. (2020). Karakteristik permen jelly dengan penambahan gelatin sisik ikan yang berbeda. *Jurnal Ilmu dan Teknologi Perikanan*, 2(1), 29–36. <https://doi.org/10.14710/jitpi.2020.8086>
- Mukhaimin, I., Nurwany, H. M., & Prasetyati, S. B. (2022). *Pengaruh konsentrasi gelatin*.
- Murray, J. M., & Baxter, I. A. (2003). SENSORY EVALUATION | food acceptability and sensory evaluation. In *Encyclopedia of Food Sciences and Nutrition* (pp. 5130–5136). Elsevier. <https://doi.org/10.1016/B0-12-227055-X/01372-9>
- Naufal, A., Harini, N., & Nuriza Putri, D. (2022). Karakteristik kimia dan sensori minuman instan kombucha dari kulit buah naga merah (*hylocereus polyrhizus*) berdasarkan konsentrasi gula dan lama fermentasi. *Food Technology and Halal Science Journal*, 5(2), 137–153. <https://doi.org/10.22219/fths.v5i2.21556>
- Nugraha, A. (2024). Identifikasi kadar air pada keripik talas. *Journal of Food Security and Agroindustry*, 2(3), 74–79. <https://doi.org/10.58184/jfsa.v2i3.477>
- Pakpahan, N., Kusnandar, F., & Syamsir, E. (2017). Perilaku isoterm sorpsi air dan dan perubahan fisik kerupuk tapioka pada suhu penyimpanan yang berbeda.

- Jurnal Teknologi Dan Industri Pangan*, 28(2), 91–101. <https://doi.org/10.6066/jtip.2017.28.2.91>
- Paur, M. A. A., Hartati, F. K., & Prayudanti, A. A. (2025). Jenis dan Konsentrasi Gelling Agent yang Berbeda Terhadap Mutu Fisikokimia dan Organoleptik Permen Jelly Jambu Kristal (*Psidium guajava*). *Syntax Literate ; Jurnal Ilmiah Indonesia*, 10(3), 3105–3115. <https://doi.org/10.36418/syntax-literate.v10i3.57750>
- Pekdogan Goztok, S., Habibzadeh Khiabani, A., Toker, O. S., Palabiyik, I., & Konar, N. (2024). Development of healthier gummy candy by substituting glucose syrup with various fruit juice concentrates. *Food Science & Nutrition*, 12(10), 7864–7876. <https://doi.org/10.1002/fsn3.4389>
- Prakash, K., Satyanarayana, V., Nagiat, H., Fathi, A., Shanta, A., & Prameela, A. (2014). Formulation development and evaluation of novel oral jellies of carbamazepine using pectin, guar gum, and gellan gum. *Asian Journal of Pharmaceutics*, 8(4), 241. <https://doi.org/10.4103/0973-8398.143937>
- Prakoso, L. O., Yusmaini, H., Thadeus, M. S., & Wiyono, S. (2017). Perbedaan efek ekstrak buah naga merah (*hylocereus polyrhizus*) dan ekstrak buah naga putih (*hylocereus undatus*) terhadap kadar kolesterol total tikus putih (*rattus norvegicus*). *Jurnal Gizi Dan Pangan*, 12(3), 195–202. <https://doi.org/10.25182/jgp.2017.12.3.195-202>
- Prihatiningsih, D. (2014). Analisis sifat fisikokimia gelatin yang diekstrak dari kulit ayam dengan variasi konsentrasi asam laktat dan lama ekstraksi. *Journal of Applied Chemistry*, 2.
- Primiani, C. N., Pujiati, Mumtahanah, M., & Ardhi, W. (2018). Kombucha fermentation test used for various types of herbal teas. *Journal of Physics: Conference Series*, 1025, 012073. <https://doi.org/10.1088/1742-6596/1025/1/012073>
- Rakhmadevi, A. G., & Fadhila, P. T. (2023). *Hedonic quality analysis of okara substitution cookies with variations in the addition of cinnamon powder*.
- Ramadhany, S., Achmad, M. H., Handayani, H., Tanumihardja, M., Singgih, M. F., Inayah, N. H., & Ramadhany, Y. F. (2020). Formulation of ethanol extract (*myrmecodia pendans*) as an antibacterial streptococcus mutans in chewable lozenges for children with early childhood caries. *Systematic Reviews in Pharmacy*, 11(04). <https://doi.org/10.31838/srp.2020.4.37>
- Rani, K. C., Ningrat, K. W. C., Melinda, S., & Jayani, N. I. E. (2022). Formulasi chewable gummy daun kelor (*moringa oleifera*) dengan gelling agent konjak glukomanan dan kappa karagenan. *MPI (Media Pharmaceutica Indonesiana)*, 4(1), 1–12. <https://doi.org/10.24123/mpi.v4i1.5032>
- Ratnaningsih, R., Songsermpong, S., & Nguyen, P. T. (2025). Effect of hydrocolloids and tapioca starch on physicochemical and nutritional

- characteristics of mung bean protein-based patties. *Indonesian Food Science and Technology Journal*, 9(1), 125–137. <https://doi.org/10.22437/ifstj.v9i1.45748>
- Robertson, G. L. (2016). Packaging and food and beverage shelf life. In *The Stability and Shelf Life of Food* (pp. 77–106). Elsevier. <https://doi.org/10.1016/B978-0-08-100435-7.00003-4>
- Rosalyn, Utomo, A. R., & Setijawati, E. (2016). Karakteristik edible film dari tapioka dengan penambahan gelatin. *Jurnal Teknologi Pangan dan Gizi*, 15(1), 7–12.
- Rosell, C. M., Rojas, J. A., & Benedito De Barber, C. (2001). Influence of hydrocolloids on dough rheology and bread quality. *Food Hydrocolloids*, 15(1), 75–81. [https://doi.org/10.1016/S0268-005X\(00\)00054-0](https://doi.org/10.1016/S0268-005X(00)00054-0)
- Ruayati, W. S., Rita, E., & Widyastuti, D. A. (2019). Kandungan vitamin c pada fermentasi kombucha kulit buah naga merah (*hylocereus polyrhizus*). *Seminar Nasional Edusainstek*.
- Saha, D., & Bhattacharya, S. (2010). Hydrocolloids as thickening and gelling agents in food: A critical review. *Journal of Food Science and Technology*, 47(6), 587–597. <https://doi.org/10.1007/s13197-010-0162-6>
- Said, N. S., Olawuyi, I. F., & Lee, W. Y. (2023). Pectin hydrogels: Gel-forming behaviors, mechanisms, and food applications. *Gels*, 9(9), 732. <https://doi.org/10.3390/gels9090732>
- Salsabilah, C. E., & Handayani, S. (2024). Effect of kombucha tea fermentation from green tea and red dragon fruit skins on antioxidant activity and organoleptic. *ARGIPA (Arsip Gizi Dan Pangan)*, 9(1), 30–42. <https://doi.org/10.22236/argipa.v9i1.11981>
- Samatra, M. Y., Noor, N. Q. I. M., Razali, U. H. M., Bakar, J., & Shaarani, S. Md. (2022). Bovidae-based gelatin: Extractions method, physicochemical and functional properties, applications, and future trends. *Comprehensive Reviews in Food Science and Food Safety*, 21(4), 3153–3176. <https://doi.org/10.1111/1541-4337.12967>
- Sela, S. S., Rochyani, D., & Verawati, B. (2022). Formulasi ekstrak kencur (*kaempferia galanga* L) pada pembuatan puding sumber fosfor sebagai cemilan sehat anak prasekolah (4-6) tahun. *Jurnal Kesehatan Tambusai*, 3(1), 104–112. <https://doi.org/10.31004/jkt.v3i1.3832>
- Shofiyanty, A., Nisa, F. Q., Fitri, K. A., Puspalistya, L. W., & Widyarini, R. M. (2023). Pengaruh suhu terhadap pertumbuhan mikroba teh kombucha sari nanas (*Ananas comosus*) [Karya Tulis Ilmiah/ Artikel Penelitian]. Universitas Islam Negeri Walisongo Semarang.

- Su, K., Brunet, M., Festrings, D., Ayed, C., Foster, T., & Fisk, I. (2021). Flavour distribution and release from gelatine-starch matrices. *Food Hydrocolloids*, 112, 106273. <https://doi.org/10.1016/j.foodhyd.2020.106273>
- Suherman, Harmini, S., & Amalina, A. N. (2024). Review: Diversifikasi Kombucha Sebagai Minuman Fungsional. *Journal of Innovative Food Technology and Agricultural Product*, 23–30. <https://doi.org/10.31316/jitap.v2i2.7507>
- Sunyoto, M. (2018). Pendugaan umur simpan kerupuk ikan dalam berbagai jenis kemasan dengan metode akselerasi melalui pendekatan kadar air kritis. *Jurnal Penelitian Pangan (Indonesian Journal of Food Research)*, 2(1). <https://doi.org/10.24198/jp2.2017.vol2.1.08>
- Syahbanu, F., Napitupulu, F. I., Septiana, S., & Aliyah, N. F. (2023). Struktur pati beras (*oryza sativa* L.) dan mekanisme perubahannya pada fenomena gelatinisasi dan retrogradasi. *Agrointek: Jurnal Teknologi Industri Pertanian*, 17(4), 755–767. <https://doi.org/10.21107/agrointek.v17i4.15315>
- Tapia, M. S., Alzamora, S. M., & Chirife, J. (2020). Effects of water activity (a_w) on microbial stability as a hurdle in food preservation. In G. V. Barbosa-Cánovas, A. J. Fontana, S. J. Schmidt, & T. P. Labuza (Eds.), *Water Activity in Foods* (1st ed., pp. 323–355). Wiley. <https://doi.org/10.1002/9781118765982.ch14>
- Utomo, B. S. B., Darmawan, M., Hakim, A. R., & Ardi, D. T. (2014). *PHYSICO-CHEMICAL PROPERTIES AND SENSORY EVALUATION OF JELLY CANDY MADE FROM DIFFERENT RATIO OF -CARRAGEENAN AND KONJAC*.
- Villarreal-Soto, S. A., Beaufort, S., Bouajila, J., Souchard, J., & Taillandier, P. (2018). Understanding kombucha tea fermentation: A review. *Journal of Food Science*, 83(3), 580–588. <https://doi.org/10.1111/1750-3841.14068>
- Vojvodić Cebin, A., Bunić, M., Mandura Jarić, A., Šeremet, D., & Komes, D. (2024). Physicochemical and Sensory Stability Evaluation of Gummy Candies Fortified with Mountain Germander Extract and Prebiotics. *Polymers*, 16(2), 259. <https://doi.org/10.3390/polym16020259>
- Wang, S., & Copeland, L. (2015). Effect of acid hydrolysis on starch structure and functionality: A review. *Critical Reviews in Food Science and Nutrition*, 55(8), 1081–1097. <https://doi.org/10.1080/10408398.2012.684551>
- Watawana, M. I., Jayawardena, N., Gunawardhana, C. B., & Waisundara, V. Y. (2015). Health, wellness, and safety aspects of the consumption of kombucha. *Journal of Chemistry*, 2015(1), 591869. <https://doi.org/10.1155/2015/591869>
- Widawati, L. (2024). Pengaruh variasi konsentrasi sukrosa dan gelatin terhadap mutu marshmallow buah kemang (*mangifera kemanga*). *Jurnal Teknologi Agro-Industri*, 11(2), 80–90. <https://doi.org/10.34128/jtai.v11i2.190>

- Wulan, N., Vega, Z. A., Putra, F. S., & Hutami, R. (2024). Kajian Gelatin sebagai Bahan Tambahan Pangan Pembentuk Gel (Gelling Agent) dalam Produk Permen Soft Candy atau Jelly Candy. *Karimah Tauhid*, 3(11), 12232–12240. <https://doi.org/10.30997/karimahtauhid.v3i11.15753>
- Zambry, M. S., Aridi, A. S., Baharuddin, S. A., Abu Bakar, F. I., Abdullah, N., & Malik, N. H. (2025). Impact of gelling agents on the texture and stability of herbal gummy candies. *Food Research*, 9(6), 244. [https://doi.org/10.26656/fr.2017.9\(6\).247](https://doi.org/10.26656/fr.2017.9(6).247)
- Zeleny, M. (1982). *Multiple criteria decision making*. Mc Graw Hill Book Company.
- Zhang, X., Tong, Q., Zhu, W., & Ren, F. (2013). Pasting, rheological properties and gelatinization kinetics of tapioca starch with sucrose or glucose. *Journal of Food Engineering*, 114(2), 255–261. <https://doi.org/10.1016/j.jfoodeng.2012.08.002>
- Zhou, Q., Zhang, Z., Huang, Y., Niu, L., Miao, J., & Lai, K. (2022). Effects of acidulants on the rheological properties of gelatin extracted from the skin of tilapia (*oreochromis mossambicus*). *Foods*, 11(18), 2812. <https://doi.org/10.3390/foods11182812>
- Zhu, F. (2015). Composition, structure, physicochemical properties, and modifications of cassava starch. *Carbohydrate Polymers*, 122, 456–480. <https://doi.org/10.1016/j.carbpol.2014.10.063>