

DAFTAR PUSTAKA

- Abeyrathne, E., Nam, K., & Ahn, D. U. 2021. Analytical Methods for Lemak Oxidation and Antioxidant Capacity in Food Systems. *Antioxidants (Basel, Switzerland)*, 10(10), 1587.
- Afolabi, S., Okache, T.A., Eke, M.O., & Alakali, J. 2018. Storage Stability of Butter Produced From Peanut , Crayfish and Ginger. *IOSR-JESTFT*, 12(1): 27-37.
- Ajita, T., & Jha, S.K. 2017. Effect of Nitrogen Gas Enriched Packing on Quality and Storage Life of Pearl Millet Based Fried Snack. *Journal of Biosystems Engineering*, 42: 62-68.
- AOCS. AOCS Official Method Cd 3d-63 acid value.
- AOCS. AOCS Official Method Cd 8–53 peroxide value - acetic acid-chloroform method.
- Apriyantono, A., D. Fardiaz, N.L. Puspitasari, S. Yasni dan S. Budiyo. 1989. *Petunjuk Praktikum Analisis Pangan*. IPB Press, Bogor.
- Ardiansyah, G., Hintono, A., & Pratama, Y. 2019. Karakteristik Fisik Selai Wortel (*Daucus carota* L.) dengan Penambahan Tepung Porang (*Amorphophallus oncophyllus*) sebagai Bahan Pengental. *Jurnal Teknologi Pangan* 3(2):175–180.
- Ariyani, F., N.S. Saputri, dan L. Nurhidayati. 2009. Efektivitas Daun Cincau Hijau (*Cyclea barbata* Miers) Sebagai Produk Antioksidan Alami Produk Jambal Patin (*Pangaius hypophthalmus*). *Jurnal Pasca Panen dan Bioteknologi Kelautan dan Perikanan*, 4(2): 169 – 175.
- Association of Official Analytical Chemist[AOAC]. (2005). *Official Methods of Analysis (18 Edn)*. Mayland, USA: Association of Official Analytical Chemist Inc.
- Badan Pengawas Obat dan Makanan Republik Indonesia (BPOM). 2019. “Peraturan BPOM No. 11 Tahun 2019 tentang Bahan Tambahan Pangan”. 690, 715.
- Blake, A. I., Co, E. D., Marangoni, A. G. 2014. Structure and physical properties

- of plant wax crystal networks and their relationship to oil binding capacity, *Journal of the American Oil Chemists' Society*, 91:885-903.
- Calligaris, L. Manzocco, M. Anese, dan M. C. Nicoli. 2016. Shelf-life assessment of food undergoing oxidation—a review. *Critical Reviews in Food Science and Nutrition*, vol. 56, no. 11, pp. 1903–1912.
- Cerqueira, M.A., Fasolin, L.H., Picone, C.S.F. 2017. Structural and mechanical properties of organogels: Role of oil and gelator molecular structure. *J. Food Research International* 96: 161-170.
- Chauhan, Pranav & Pradhan, Soubhagya & Bandyopadhyay, Samiran & Das, Arun. 2018. Inhibition of lemakand protein oxidation in raw ground pork by *Terminalia arjuna* fruit extract during refrigerated storage. *Asian-Australasian Journal of Animal Sciences*. 32. 10.5713/ajas.17.0882.
- Chen Y, Gavaliatsis T, Kuster S, Städeli C, Fischer P, Windhab EJ. 2021. Crust treatments to reduce bread staling. *Curr Res Food Sci*, 27(4):182-190.
- Christian, A. dan W. Setiadi. 2019. *Industri Oleokimia Berbasis Kelapa Sawit*. Bandung: Rasibook.
- Ciftci, S. 2019. Effects Of Different Type Of Waxes On Cocoa Cream. *Tesis*. Food Engineering Department. Middle East Technical University.
- Co, E.D., dan Marangoni, A.G. 2012. Organogels: An Alternative Edible Oil-Structuring Method. *Journal of the American Chemical Society* 89:749-780.
- Davidovich-Pinhas, M. 2018. Oleogels. *Polymeric Gels*, 231–249.
- Dassanayake LSK, Kodali DR, Ueno S, Sato K. 2009. Physical properties of rice bran wax in bulk and organogels. *J Am Oil Chem Soc*, 86:1163–1173.
- Demirkesen, I., Mert, B. 2019. Utilization of Beeswax Oleogel-Shortening Mixtures in Gluten-Free Bakery Products. *J. Am. Oil Chem. Soc*, 96, 545–554.
- Dewi, Eko N.D., Ratna I. dan Nuzulia Y. 2011. Daya Simpan Abon Ikan Nila Merah (*Oreochromis niloticus* Trewavas) yang Diproses dengan Metode Penggorengan Berbeda. *Jurnal Saintek Perikanan*. 6(1): 6-12.
- Dhamsaniya, N. K., Patel, N. C., & Dabhi, M. N. 2012. Selection of groundnut variety for making a good quality peanut butter. *Journal of Food Science and Technology-Mysore* 49(1): 115–118.

- Doan, C.D., Van De Walle, D., Dewettinck, K., Patel, A.R. 2015. Evaluating the oil-gelling properties of natural waxes in rice bran oil: Rheological, thermal, and microstructural study. *JAOCs J. Am. Oil Chem* 92: 801–811.
- Doan, C. D., Patel, A. R., Tavernier, I., De Clercq, N., Van Raemdonck, K., Van de Walle, D. 2016. The feasibility of wax-based oleogel as a potential co-structurant with palm oil in low-saturated fat confectionery fillings. *European Journal of Lemak Science and Technology*, 118(12), 1903–1914.
- Domínguez, R., Pateiro, M., Gagaoua, M., Barba, F. J., Zhang, W., & Lorenzo, J. M. 2019. A Comprehensive Review on Lemak Oxidation in Meat and Meat Products. *Antioxidants (Basel, Switzerland)*, 8(10), 429.
- Fayaz, G., Goli, S. A. H., Kadivar, M., Valoppi, F., Barba, L., Calligaris, S., & Nicoli, M. C. 2017. Potential application of pomegranate seed oil oleogels based on monoglycerides, beeswax and propolis wax as partial substitutes of palm oil in functional chocolate spread. *LWT - Food Science and Technology*, 86, 523–529.
- FSSAI. 2020. Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011. Compendium of Food Additives Regulations.
- Frolova, Y., Sarkisyan, V., Sobolev, R., Makarenko, M., Semin, M., Kochetkova, A. 2022. The Influence of Edible Oils' Composition on the Properties of Beeswax-Based Oleogels. *Gels*, 8, 48.
- Garrett R. H. dan Grisham C. M. 2017. *Biochemistry. 6 th ed.* Canada: Cengage Learning.
- Gatade, A.A. 2020. *A Handbook On Oil And Fat Technology*. India: Abhijeet Arun Gatade.
- Godoi, K. R. R. de, Basso, R. C., Ming, C. C., da Silva, A. Á., Cardoso, L. P., & Ribeiro, A. P. B. (2020). Crystallization, microstructure and polymorphic properties of soybean oil organogels in a hybrid structuring system. *Food Research International*, 137(March), 109460.
- Gong, A-na & Shi, Aimin & LIU, Hong-zhi & Hongwei, Yu & LIN, Wei-jing & WANG, Qiang. 2018. Relationship of chemical properties of different peanut varieties to peanut butter storage stability. *Journal of Integrative Agriculture*. 17. 1003-1010. 10.1016/S2095-3119(18)61919-7.

- Gorrepati, K., Balasubramanian, S., & Chandra, P. 2015. Plant based butters. *Journal of food science and technology*, 52(7), 3965–3976.
- Huang, Zhaohua & Guo, Baozhong & Deng, Chong & Luo, Shunjing & Liu, Wei & Hu, Xiuting. 2020. Stabilization of peanut butter by rice bran wax. *Journal of Food Science*. 85. 10.1111/1750-3841.15176.
- Hwang, H.-S., Kim, S., Singh, M., Winkler-Moser, J. K., Liu, S. X. 2012. Organogel Formation Of Soybean Oil With Waxes. *J. Am. Oil Chem. Soc.* 89: 639–647.
- Hwang, H. S., Gillman, J. D., Winkler-Moser, J. K., Kim, S., Singh, M., Byars, J.A., dan Evangelista, R. L. 2018. Properties of Oleogels Formed with High-Stearic Soybean Oils and Sunflower Wax. *JAOCs, Journal of the American Oil Chemists' Society* 95(5): 557–569.
- Inyang, U.E., & Oduma, O.V. 2020. Fatty Acid Profile and Oil Stability of Butter Made from Peanut Paste Supplemented with Sesame Seed Paste. *Asian Food Science Journal*, 17(4): 1-13.
- Irianti, T.T., Kuswandi, Nuranto, S., Purwanto. 2021. *Antioksidan dan Kesehatan*. UGM Press. Yogyakarta.
- Jang, A., Bae, W., Hwang, H. S., Lee, H. G., & Lee, S. 2015. Evaluation Of Canola Oil Oleogels With Candelilla Wax As An Alternative To Shortening In Baked Goods. *Food Chemistry* 187: 525–529.
- JewelPie. THIS or THAT: Chunky Peanut Butter. <https://jewelpie.com/this-or-that-chunky-peanut-butter/>. [diakses 8 April 2022]
- Jobin Jose, Kavya Gopalan. 2018. Organogels: A Versatile Drug Delivery Tool in Pharmaceuticals. *Research J. Pharm. and Tech* 11(3): 1242-1246.
- Kaleem, A., Aziz, S.S., & Iqtedar, M. 2015. Investigating Changes And Effect Of Peroxide Values In Cooking Oils Subject To Light And Heat. *FUUAST J. BIOL.*, 5(2): 191-196.
- Kusnandar, F. 2019. *Kimia Pangan Komponen Makro*. Jakarta: Bumi Aksara.
- Kwon, Chang & Park, Kyung-Min & Park, Jeong & Lee, Jaehwan & Choi, Seung Jun & Chang, Pahn-Shick. 2016. Rapid and Sensitive Determination of LemakOxidation Using the Reagent Kit Based on Spectrophotometry (FOODLAB fat System). *Journal of Chemistry*. 1-6.
- Lim, J., Jeong, S., Oh, I., Lee, S. 2017. Evaluation of soybean oil-carnauba wax

- oleogels as an alternative to high saturated fat frying media for instant fried noodles. *LWT - Food Science and Technology*, 84: 789-794.
- Maharsih, I., Tarmidzi, F., Alviany, R., Aurelia, M. and Putri, S. 2019. The Effect of Beeswax and Chitosan Concentrations as Superhydrophobic Coating on Wound Dressing. *International Conference on Industrial Technology* 1,:58-60.
- Mandu, C. C., Barrera-Arellano, D., Santana, M. H. A., & Fernandes, G. D. 2020. Waxes used as structuring agents for food organogels: A review. *Grasas y Aceites* 71(1): 1–13.
- Marangoni, A. G. dan Garti, N. 2011. *Edible Oleogels: Structure and Health Implications*. AOCS Press. Urbana, Illinois.
- Marangoni, A. G., & Acevedo, N. C. (2012). Characterization Of The Nanostructure Of The Nanostructure Of Triacylglycerol Crystal Networks In *Structure-Function Analysis Of Edible Fats*. AOCS Press. Urbana, Illinois.
- Martins A.J., Vicente A.A., Cunha R.L., Cerqueira M.A. 2018. Edible oleogels: An opportunity for fat replacement in foods. *Food Function* 9:758–773.
- Mishra, M. 2015. *Handbook of Encapsulation and Controlled Release*. United States: CRC Press.
- M. Moghtadaei, N. Soltanizadeh and S. A. H. Goli. 2018. Production of sesame oil oleogels based on beeswax and application as partial substitutes of animal fat in beef burger. *Food Res. Int.*, 108, 368–377.
- Oh, I.K., Amoah, C., Lim, J., Jeong, S., Lee, S. 2017. Assessing the effectiveness of wax-based sunflower oil oleogels in cakes as a shortening replacer. *LWT*, 86, 430–437.
- Öğütçü, Mustafa & Arifoğlu, Nazan & Yılmaz, Emin. 2014. Storage stability of cod liver oil organogels formed with beeswax and carnauba wax. *International Journal of Food Science & Technology*, 50: 404-412.
- Pang, M. & Shi, Z. & Lei, Z. & Ge, Y. & Jiang, S. & Cao, L.. 2020. Structure and thermal properties of beeswax-based oleogels with different types of vegetable oil. *Grasas y Aceites*. 71. 380.
- Park, J.W., Kim, J.Y., Kim, M.J., Lee, J. 2014. Evaluation of oxygen-limitation on

- lemakoxidation and moisture content in corn oil at elevated temperature. *J Am Oil Chem Soc*, 91(3):439–444.
- Park, Clifford & Bemmer, Hanna & Maleky, Farnaz. 2018. Oxidative Stability of Rice Bran Wax Oleogels and an Oleogel Cream Cheese Product. *Journal of the American Oil Chemists' Society*. 95. 10.1002/aocs.12095.
- Park, J., Lee, S., Yoo, B., Nam, K. 2020. Effects of texture properties of semi-solid food on the sensory test for pharyngeal swallowing effort in the older adults. *Journal BMC Geriatrics*, 20. 2-5.
- Puşcaş, A., Mureşan, V., Socaciu, C., Muste S. 2020. Oleogels in Food: A Review of Current and Potential Applications. *Foods*. 9(1):70.
- Qiu, H., Qiu, Z.Z., Chen, Z., Liu, L., Wang, J., Jiang, H., Zhang, H., & Liu, G. 2021. Antioxidant properties of blueberry extract in different oleogel systems. *Lwt - Food Science and Technology*, 137, 110364.
- Raharjo, S., 2006. *Kerusakan Oksidatif pada Makanan*. Gadjah Mada University Press. Yogyakarta
- Rakesh, G., Mukesh, G., Hemant, S. 2014. A Review on Organogels and Fluid Filled Method. *Int J Sci Res Rev IJSRR* 3(32):274-288.
- Rengga, W.D.P. 2020. *Perpanjangan Masa Pakai Minyak Goreng*. Deepublish. Yogyakarta.
- Rochmah, Mulidavi., Ferdiansyah, M., Nurdyansyah, Fafa., Ujianti, Rizky. 2019. Pengaruh Penambahan Hidrokoloid Dan Konsentrasi Sukrosa Terhadap Karakteristik Fisik Dan Organoleptik Selai Lembaran Pepaya (*Carica Papaya* L.). *Jurnal Pangan dan Agroindustri*, 7. 42-52.
- Ronald, E., Terry, A., Eric. 2005. *Handbook of Food Analytical Chemistry*. John Wiley & Sons, Hoboken, NJ, USA.
- Rozalli N.H., Chin, N.L., Yusof, Y.A., Mahyudin, N. 2016. Quality changes of stabilizer-free natural peanut butter during storage. *J Food Sci Technol. Jan* 53(1):694-702.
- Sagiri, S.S., Behera, B., Rafanan, R.R., Bhattacharya, C., Pal, K., Banerjee, I., dan D., Rousseau. 2014. Organogels as Matrices for Controlled Drug Delivery: A Review on the Current State. *Soft Materials* 12: 47-72.
- Samui, Tias & Goldenisky, Daniel & Rosen-Kligvasser, Jasmine & Davidovich-

- Pinhas, Maya. 2020. The development and characterization of novel in-situ bigel formulation. *Food Hydrocolloids*, 113.
- Shakerardekani, A; Karim, R., Hasanah M. G., Nyuk Ling Chin. 2013. Textural, Rheological and Sensory Properties and Oxidative Stability of Nut Spreads—A Review. *International Journal of Molecular Sciences* 14 4223 – 4241.
- Shang, J., Zhong, F., Zhu, S., Huang, D., & Li, Y. 2021. Formation, structural characteristics and physicochemical properties of beeswax oleogels prepared with tea polyphenol loaded gelators. *Food & Function*, 12(4), 1662–1671.
- Sharma, R., Gupta, P., Yadav, A. 2013. Organogels: A Review. *International Journal of Research in Pharmacy and Life Sciences* 1(2): 125-130.
- Shrestha, A. 2017. Roasting Time-Temperature Optimization For Preparation Of Peanut Butter And Study On Its Shelf Life. *Disertasi*. Food Engineering Department. Tribhuvan University. Nepal.
- Silva, P.M., Martins, A.J., Fasolin, L.H., Vicente, A.A. 2021. Modulation and characterization of wax-based olive oil organogels in view of their application in the food industry. *Gels* 7(12): 2-18.
- Smolin, L. A., Grosvenor, M. B., Gurfinkel, D. 2020. *Nutrition: Science and Applications*. United Kingdom: Wiley.
- Standar Nasional Indonesia (SNI 01-2979-1992). *Mutu dan Cara Uji Mentega Kacang*. Jakarta.
- Subramaniam, P., & Wareing, P. (Eds.). 2016. *The stability and shelf life of food*. Woodhead Publishing. Cambridge.
- Sudarmadji S, dkk. 1997. *Prosedur Analisa untuk Bahan Makanan dan Pertanian*. Liberty. Yogyakarta.
- Suparno, O., Kartika, I., Muslich. 2013. *Sains dan Teknologi Proses Produksi Minyak/Lemak dan Kulit Samoa (Chamois Leather)*. Bogor: IPB Press.
- Tanti, Rachel & Barbut, Shai & Marangoni, Alejandro. 2016. Oil stabilization of natural peanut butter using food grade polymers. *Food Hydrocolloids*. 61. 10.1016/j.foodhyd.2016.05.034.
- Tarigan, Indra Lasmana. 2019. *Dasar-Dasar Kimia Air, Makanan dan Minuman*.

Media Nusa Creative. Malang.

Tarladgis BGBM., Watts MT, Duggan YLR. 1960. A destilatiosn method for the quantitative determination of malonaldehyde in rancid foods. *Journal of American Oil Chemstry Society* 37: 44- 48.

USDA. Food Composition Database. 2018

Wang, F. C., Gravelle, A. J., Blake, A. I., & Marangoni, A. G. 2016. Novel trans-fat replacement strategies. *Current Opinion in Food Science* 7: 27-34.

Winkler-Moser, J. K., Anderson, J., Byars, J. A., Singh, M., & Hwang, H. 2019. Evaluation of Beeswax, Candelilla Wax, Rice Bran Wax, and Sunflower Wax as Alternative Stabilizers for Peanut Butter. *Journal of the American Oil Chemists' Society*, 96: 1235-1248.

Yenrina, R. 2015. *Metode Analisis Bahan Pangan dan Komponen Bioaktif*. Andalas University Press. Padang.

Yi, B., Kim, M. J., Lee, S. Y., & Lee, J. 2017. Physicochemical properties and oxidative stability of oleogels made of carnauba wax with canola oil or beeswax with grapeseed oil. *Food science and biotechnology*, 26(1), 79–87.

Yilmaz, F., & Dagdemir, E. 2012. The effects of beeswax coating on quality of Kashar cheese during ripening. *International Journal of Food Science & Technology* 47(12): 2582- 2589.

Yilmaz, E., & Ogutcu, M. 2014. Properties and stability of hazelnut oil organogels with beeswax and monoglyceride. *Journal of the American Oil Chemists Society*, 91, 1007-1017.

Yilmaz, E., Ogutcu, M., & Yuceer, Y. K. 2015. Physical properties, volatiles compositions and sensory descriptions of the aromatized hazelnut oil-wax organogels. *Journal of Food Science* 80(9) S2035–S2044.

Yilmaz, E. and Ögütçü, M. 2015. Oleogels as spreadable fat and butter alternatives: Sensory description and consumer perception. *Rsc Advances*, 5(62), pp.50259-50267.

Zambia Bureau Of Standards. 2008. ZS 723:2008. “Zambian Peanut Butter Specification.” Zambia: Government Printers. ICS: 67.040., 2-3.

