



DAFTAR PUSTAKA

- Afoakwa, E. O. (2010). Chocolate Science and Technology. In *Science and Technology of Enrobed and Filled Chocolate, Confectionery and Bakery Products*. Wiley. <https://doi.org/10.1002/9781444319880>
- Afoakwa, E. O. (2016). *Chocolate Science and Technology*. John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781118913758>
- Afoakwa, E. O., Paterson, A., dan Fowler, M. (2007). Factors influencing rheological and textural qualities in chocolate – a review. *Trends in Food Science & Technology*, 18(6), 290–298. <https://doi.org/10.1016/j.tifs.2007.02.002>
- Afoakwa, E. O., Paterson, A., dan Fowler, M. (2008). Effects of particle size distribution and composition on rheological properties of dark chocolate. *European Food Research and Technology*, 226(6), 1259–1268. <https://doi.org/10.1007/s00217-007-0652-6>
- Almy, R. D., dan Tontowi, A. E. (2018). The Effect Of 3d Printing Machine Parameters In Extrusion Process Of Biocomposite Materials (Pmma And Ha) On Dimensional Accuracy. *SINERGI*, 22(2), 83. <https://doi.org/10.22441/sinergi.2018.2.003>
- Altuntas, S., Özsoy, E. B., dan Mor, Şi. (2019). Innovative new product development: A case study. *Procedia Computer Science*, 158, 214–221. <https://doi.org/10.1016/j.procs.2019.09.044>
- Beckett, S. (2008). *Industrial Chocolate Manufacture and Use* (S. T. Beckett (ed.)). Wiley-Blackwell. <https://doi.org/10.1002/9781444301588>
- Cohen, D., Lipton, J., Cutler, M., Coulter, D., Vesco, A., dan Lipson, H. (2009). Hydrocolloid Printing: A Novel Platform for Customized Food Production. *20th Annual International Solid Freeform Fabrication Symposium, SFF 2009*, 807–817. https://www.researchgate.net/publication/266090178_Hydrocolloid_Printing_A_Novel_Platform_for_Customized_Food_Production
- Cousineau, D., dan Engmann, S. (2011). Comparing Distributions: The Two-Sample Anderson – Darling Test as an Alternative to the Kolmogorov – Smirnov test. *Journal of Applied Quantitative Methods*, 6(3), 1–17. https://www.researchgate.net/profile/Denis-Cousineau/publication/276918573_Comparing_distributions_the_two-sample_Anderson-Darling_test_as_an_alternative_to_the_Kolmogorov-Smirnov_test/links/555b5ffd08ae8f66f3ad715b/Comparing-distributions-the-two-sample-
- Delbaere, C., Van de Walle, D., Depypere, F., Gellynck, X., dan Dewettinck, K. (2016). Relationship between chocolate microstructure, oil migration, and fat bloom in filled chocolates. *European Journal of Lipid Science and Technology*, 118(12), 1800–1826. <https://doi.org/10.1002/ejlt.201600164>
- Derossi, A., Caporizzi, R., Azzollini, D., dan Severini, C. (2018). Application of 3D printing for customized food. A case on the development of a fruit-based



- snack for children. *Journal of Food Engineering*, 220, 65–75. <https://doi.org/10.1016/j.jfoodeng.2017.05.015>
- Do, T.-A. L., Hargreaves, J. M., Wolf, B., Hort, J., dan Mitchell, J. R. (2007). Impact of Particle Size Distribution on Rheological and Textural Properties of Chocolate Models with Reduced Fat Content. *Journal of Food Science*, 72(9), E541–E552. <https://doi.org/10.1111/j.1750-3841.2007.00572.x>
- Fallo, J. O., Setiawan, A., dan Susanto, B. (2013). Uji Normalitas Berdasarkan Metode Andersondarling , Cramer-. *Proseeding SemNas Matematika dan Pendidikan Matematika, November 2013*.
- Godoi, F. C., Bhandari, B. R., Prakash, S., dan Zhang, M. (2019). Fundamentals of 3D Food Printing and Applications. In *Fundamentals of 3D Food Printing and Applications* (hal. 1–18). Elsevier. <https://doi.org/10.1016/C2017-0-01591-4>
- Hamilton, C. A., Alici, G., dan in het Panhuis, M. (2018). 3D printing Vegemite and Marmite: Redefining “breadboards.” *Journal of Food Engineering*, 220, 83–88. <https://doi.org/10.1016/j.jfoodeng.2017.01.008>
- Hao, L., Li, Y., Gong, P., dan Xiong, W. (2019). Material, process and business development for 3D chocolate printing. In *Fundamentals of 3D Food Printing and Applications*. Elsevier Inc. <https://doi.org/10.1016/B978-0-12-814564-7.00008-0>
- Hao, L., Mellor, S., Seaman, O., Henderson, J., Sewell, N., dan Sloan, M. (2010). Material characterisation and process development for chocolate additive layer manufacturing. *Virtual and Physical Prototyping*, 5(2), 57–64. <https://doi.org/10.1080/17452751003753212>
- He, Y., Yang, F., Zhao, H., Gao, Q., Xia, B., dan Fu, J. (2016). Research on the printability of hydrogels in 3D bioprinting. *Scientific reports*, 6(1), 29977. <https://doi.org/10.1038/srep29977>
- Herda Agus Pamasaria *, Herianto, T. H. S. (2019). Pengaruh Parameter Proses 3D Printing Tipe Fdm (Fused Deposition Modeling) Terhadap Kualitas Hasil Produk. *Seminar Nasional IENACO*, 1–7.
- Holland, S., Foster, T., MacNaughtan, W., dan Tuck, C. (2018). Design and characterisation of food grade powders and inks for microstructure control using 3D printing. *Journal of Food Engineering*, 220, 12–19. <https://doi.org/10.1016/j.jfoodeng.2017.06.008>
- Hussain, S., Malakar, S., dan Arora, V. K. (2021). Extrusion-Based 3D Food Printing: Technological Approaches, Material Characteristics, Printing Stability, and Post-processing. *Food Engineering Reviews*, 0123456789. <https://doi.org/10.1007/s12393-021-09293-w>
- Ismianti, dan Herianto. (2020). Adoption of 3D Printing in Indonesia and Prediction of Its Application in 2025. *IOP Conference Series: Materials Science and Engineering*, 722(1). <https://doi.org/10.1088/1757-899X/722/1/012028>
- Karyappa, R., dan Hashimoto, M. (2019). Chocolate-based Ink Three-dimensional Printing (Ci3DP). *Scientific Reports*, 9(1), 1–11. <https://doi.org/10.1038/s41598-019-50583-5>
- Lanaro, M., Desselle, M. R., dan Woodruff, M. A. (2019). 3D Printing Chocolate. In *Fundamentals of 3D Food Printing and Applications* (Nomor October, hal. 151–173). Elsevier. <https://doi.org/10.1016/B978-0-12-814564-7.00006-7>



- Lanaro, M., Forrestal, D. P., Scheurer, S., Slinger, D. J., Liao, S., Powell, S. K., dan Woodruff, M. A. (2017). 3D printing complex chocolate objects: Platform design, optimization and evaluation. *Journal of Food Engineering*, 215, 13–22. <https://doi.org/10.1016/j.jfoodeng.2017.06.029>
- Larsson, K., Cyvin, S. J., Rymo, L., Bowie, J. H., Williams, D. H., Bunnberg, E., Djerassi, C., dan Records, R. (1966). Classification of Glyceride Crystal Forms. *Acta Chemica Scandinavica*, 20, 2255–2260. <https://doi.org/10.3891/acta.chem.scand.20-2255>
- Le Tohic, C., O’Sullivan, J. J., Drapala, K. P., Chartrin, V., Chan, T., Morrison, A. P., Kerry, J. P., dan Kelly, A. L. (2018). Effect of 3D printing on the structure and textural properties of processed cheese. *Journal of Food Engineering*, 220, 56–64. <https://doi.org/10.1016/j.jfoodeng.2017.02.003>
- Lipson, H., dan Kurman, M. (2013). *Fabricated: The New World of 3D Printing*. Wiley.
- Lipton, J., Arnold, D., Nigl, F., Lopez, N., Cohen, D., Norén, N., dan Lipson, H. (2010). Mutli-material food printing with complex internal structure suitable for conventional post-processing. *21st Annual International Solid Freeform Fabrication Symposium - An Additive Manufacturing Conference, SFF 2010, March*, 809–815.
- Liu, L., dan Ciftci, O. N. (2021). Effects of high oil compositions and printing parameters on food paste properties and printability in a 3D printing food processing model. *Journal of Food Engineering*, 288(December 2019), 110135. <https://doi.org/10.1016/j.jfoodeng.2020.110135>
- Liu, L., Yang, X., Bhandari, B., Meng, Y., dan Prakash, S. (2020). Optimization of the formulation and properties of 3D-printed complex egg white protein objects. *Foods*, 9(2). <https://doi.org/10.3390/foods9020164>
- Mantihal, S., Prakash, S., Godoi, F. C., dan Bhandari, B. (2017). Optimization of chocolate 3D printing by correlating thermal and flow properties with 3D structure modeling. *Innovative Food Science and Emerging Technologies*, 44(December 2016), 21–29. <https://doi.org/10.1016/j.ifset.2017.09.012>
- Mantihal, S., Prakash, S., Godoi, F. C., dan Bhandari, B. (2019). Effect of additives on thermal, rheological and tribological properties of 3D printed dark chocolate. *Food Research International*, 119(October 2018), 161–169. <https://doi.org/10.1016/j.foodres.2019.01.056>
- Martínez-Monzó, J., Cárdenas, J., dan García-Segovia, P. (2019). Effect of Temperature on 3D Printing of Commercial Potato Puree. *Food Biophysics*, 14(3), 225–234. <https://doi.org/10.1007/s11483-019-09576-0>
- Montgomery, D. C. (2009). Introduction to Statistical Quality Control, Sixth Edition. In *John Wiley & Sons, Inc.* (6 ed.).
- Montgomery, D. C. (2012). *Design and Analysis of Experiments, 8th Edition* (8 ed.). John Wiley & Sons, Incorporated, 2012.
- Montgomery, D. C., dan Runger, G. C. (1994). Applied Statistics and Probability for Engineers. *European Journal of Engineering Education*, 19(3), 383–383. <https://doi.org/10.1080/03043799408928333>
- Nachal, N., Moses, J. A., Karthik, P., dan Anandharamakrishnan, C. (2019). *Applications of 3D Printing in Food Processing. May 2018*, 123–141.



- Nduru, R. E., Situmorang, M., dan Tarigan, G. (2014). Analisa Faktor-Faktor Yang Mempengaruhi Hasil Produksi Padi Di Deli Serdang. *Saintia Matematika*, 2(1), 71–83.
- Periard, D., Schaal, N., Schaal, M., Malone, E., dan Lipson, H. (2007). Printing Food. *2007 International Solid Freeform Fabrication Symposium*, 138(47), 30–36. <https://doi.org/10.26153/tsw/7242>
- Pitayachaval, P., Sanklong, N., dan Thongrak, A. (2018). A Review of 3D Food Printing Technology. *MATEC Web of Conferences*, 213, 1–5. <https://doi.org/10.1051/mateconf/201821301012>
- Piyush, Kumar, R., dan Kumar, R. (2019). 3D printing of food materials: A state of art review and future applications. *Materials Today: Proceedings*, 33(xxxx), 1463–1467. <https://doi.org/10.1016/j.matpr.2020.02.005>
- Pratama, A. Y., dan Herianto. (2020). *Evaluasi Kualitas dalam Pengembangan Produk Cokelat 3D Printing*. (Tesis Magister, DTMI-FT Universitas Gadjah Mada, 2020).
- Rando, P., dan Ramaioli, M. (2021). Food 3D printing: Effect of heat transfer on print stability of chocolate. *Journal of Food Engineering*, 294(December 2020), 110415. <https://doi.org/10.1016/j.jfoodeng.2020.110415>
- Redwood, B., Schöffner, F., dan Garret, B. (2017). *The 3D Printing Handbook: Technologies, design and applications*. 3D Hubs B.V.
- Santoso, B. H., dan Herianto. (2020). *Rancang Bangun Mesin 3d Printing Cokelat Dengan Teknologi Sekrup Injeksi Berbasis Fused Deposition Modeling (FDM) Dan Uji Pengaruh Temperatur Pada Optimalisasi Hasil Ekstrusi*. (Skripsi Sarjana, DTMI-FT Universitas Gadjah Mada, 2020).
- Satsangi, R., Singh, H., Satsangee, G. R., Agrawal, S., dan Sharma, S. (2018). The concept of Viscous Material (Chocolate) 3D Printer / Food 3D Printer. *International Research Journal of Engineering and Technology*, 2146.
- Serenó, L., Vallicrosa, G., Delgado, J., dan Ciurana, J. (2012). *A new application for food customization with additive manufacturing technologies*. 825–833. <https://doi.org/10.1063/1.4707640>
- Serizawa, R., Shitara, M., Gong, J., Makino, M., Kabir, M. H., dan Furukawa, H. (2014). *3D jet printer of edible gels for food creation* (N. C. Goulbourne & H. E. Naguib (ed.); hal. 90580A). <https://doi.org/10.1117/12.2045082>
- Sun, J., Peng, Z., Zhou, W., Fuh, J. Y. H., Hong, G. S., dan Chiu, A. (2015). A Review on 3D Printing for Customized Food Fabrication. *Procedia Manufacturing*, 1, 308–319. <https://doi.org/10.1016/j.promfg.2015.09.057>
- Sylvester, M., Bhandari, B., dan Prakash, S. (2020). 3D food printing as a promising tool for food fabrication: 3D printing of chocolate. *Food Research*, 4, 42–53. [https://doi.org/10.26656/fr.2017.4\(S6\).054](https://doi.org/10.26656/fr.2017.4(S6).054)
- Thyssenkrupp. (2019). *Additive Manufacturing: Adding Up Growth Oppurtunitirs for ASEAN*. Thyssenkrupp.
- Van Malssen, K., Van Langevelde, A., Peschar, R., dan Schenk, H. (1999). Phase behavior and extended phase scheme of static cocoa butter investigated with real-time X-ray powder diffraction. *JAOCS, Journal of the American Oil Chemists' Society*, 76(6), 669–676. <https://doi.org/10.1007/s11746-999-0158-4>



- Wille, R. L., dan Lutton, E. S. (1966). Polymorphism of cocoa butter. *Journal of the American Oil Chemists' Society*, 43(8), 491–496.
<https://doi.org/10.1007/BF02641273>
- Zhao, H., Wang, J., Ren, X., Li, J., Yang, Y.-L., dan Jin, X. (2018). Personalized food printing for portrait images. *Computers & Graphics*, 70, 188–197.
<https://doi.org/10.1016/j.cag.2017.07.012>