

DAFTAR PUSTAKA

- Ahda, M., Guntarti, A., Kusbandari, A. and Melianto, Y. 2020. Authenticity Analysis of Beef Meatball Adulteration with Wild Boar using FTIR Spectroscopy Combined with Chemometrics. *Journal of Microbiology, Biotechnology and Food Science*, 9(5): 937–940.
- Akoh, C.C., and Min, D.B. 2008. Food Lipid: Chemistry, Nutrition, and Biotechnology, Third Edition. London. CRC Press Taylor and Francis Grup.
https://www.google.co.id/books/edition/Food_Lipids/sPgIndmgXU8C?hl=id&gbpv=1&dq=lipid+extraction+method&pg=PA134&printsec=frontcover [diakses 15 Agustus 2022].
- Alexa, E., Dragomirescu, A., Pop, G., Jianu, C., and Dragos, D. 2009. The Use of FT-IR Spectroscopy in the Identification of Vegetable Oils Adulteration. *Journal of Food, Agriculture & Environment*, 7(2): 20-24.
- Andriyani, E., Fais, N.L., and Muarifah, S. 2019. Perkembangan Penelitian Metode Deteksi Kandungan Babi untuk Menjamin Kehalalan Produk Pangan Olahan. *Journal of Islamic Student Humanity*, 4(1): 104–126.
- Axelsson, M., and Gentili, F. 2014. A Single-Step Method for Rapid Extraction of Total Lipids from Green Microalgae. *Plose one*, 9(2): 1-6.
- Baharuddin, K., Kassim, N.A., Nordin, S.K., and Buyong, S.Z. 2015. Understanding the Halal Concept and the Importance of Information on Halal Food Business Needed by Potential Malaysian Entrepreneurs. *International Journal of Academic Research in Bussiness and Social Sciences*, 5(2): 170-180.
- Bak, K.H., Bolumar, T., Karlsson, A.H., Lindahl, G., and Orlien, V. 2019. Effect of High Pressure Treatment on the Color of Fresh and Processed Meats: Review. *Critical Reviews in Food Science and Nutrition*, 59(2): 228-252.
- Blessing, B. 2011. Pathways of Homoeopathic Medicine. Germany. Springer Medizin Verlag Heidelberg. ISBN: 978-3-642-14970-2.
- Cahyadi, M., Wibowo, T., Pramono, A. and Abdurrahman, Z.H. 2020. A Novel Multiplex-PCR Assay to Detect Three Non-Halal Meats Contained in Meatball using Mitochondrial 12s rRNA Gene. *Food Science of Animal Resources*, 40(4): 628–635.

- Castro-Gomez, M.P., Rodriguez-Alcala, L.M., Calvo, M.V., Romero, J., Mendiola, J.A., Ibanez, E., and Fontecha, J. 2014. Total Milk Fat Extraction and Quantification of Polar and Neutral Lipids of Cow, Goat, and Ewe Milk by Using a Pressurized Liquid System and Chromatographic Technique. *Journal of Dairy Science*, 97(11): 6719-6728.
- Chalmers, J.M., and Dent, G. 2006. Vibrational Spectroscopy Methods in Pharmaceutical Solid-state Characterization. In *Polymorphism: in the Pharmaceutical Industry*. Edited by Rolf Hilfiker. Wiley-VCH Verlag GmbH & Co. KGaA. Weinheim.
- Cheng, J.H., Dai, Q., Sun, D.W., Zeng, X.A., Liu, D. and Pu, H. B 2013. Applications of non-destructive spectroscopic techniques for fish quality and safety evaluation and inspection. *Trends in Food Science and Technology*, 34(1):18–31.
- Coates, J. 2000. Interpretation of Infrared Spectra. A Practical Approach. In *Encyclopedia of Analytical Chemistry*. In R.A. Meyers (Ed.), pp. 10815-10837. JohnWiley & Sons Ltd, Chichester, UK.
- Cordella, C., Moussa, I., Martel, A.C., Sbirazzouli, N. and Lizzani-Cuvelier, L. 2002. Recent Developments in Food Characterization and Adulteration Detection: Technique-Oriented Perspectives. *Journal of Agricultural Food Chemistry*, 50(7): 751–176.
- Dachriyanus. 2004. Analisis Struktur Senyawa Organik secara Spektroskopi. Padang. Lembaga Pengembangan Teknologi dan Komunikasi (LPTIK) Universitas Andalas.
- Danasari, I.F., Harianto., dan Falatehan, A.F. 2020. Dampak Kebijakan Impor Ternak dan Daging Sapi terhadap Populasi Sapi Potong Lokal di Indonesia. *Jurnal Ekonomi Pertanian dan Agribisnis (JEPA)*, 2(2020): 310-322.
- Dewi, G.A.M.K. 2017. Materi Ilmu Ternak Babi. Denpasar. Fakultas Peternakan Universitas Udayana.
- Ducatti, T., do Prado, I.N., Rotta, P.P., do Prado, R.M., Perotto, D., Maggioni, D., and Visentainer, J.V. 2009. Chemical Composition and Fatty Acid Profile in Crossbred (*Bos taurus* vs. *Bos indicus*) Young Bulls Finished in a Feedlot. *Asian-Australian Journal of Animals Science*, 22(3): 433-439.
- Duckworth, J.H. 1998. Spectroscopic Quantitative Analysis, Applied Spectroscopy: A Compact Reference for Parishioners (J. Workman and A.W. Springsteen editors), Academic Press, San Diego and Chestnut Hill, USA.

- Effendi, A. 2020. The Effect of Halal Certification, Halal Awareness and Product Knowledge on Purchase Decisions for Halal Fashion Product. *Journal of Digital Marketing and Halal Industry*, 2(2): 145-154.
- El-Gindy, A., Emara, S., and Mostafa, A. 2006. Application and Validation of Chemometrics-assisted Spectrophotometry and Liquid Chromatography for the Simultaneous Determination of Six-Component Pharmaceuticals. *Journal of Pharmaceutical and Biochemical Analysis*, 41(2006): 421-430.
- Fadzlillah, N.A., Che Man, Y.B., and Rohman, A. 2014. FTIR Spectroscopy Combined with Chemometric for Analysis of Sesame Oil Adulteration with Corn Oil. *International Journal of Food Properties*, 17(6): 1275-1282.
- Febriyana, I. 2019. Pengaruh Maltodekstrin Sebagai Bahan Penyalut dalam Proses Enkapsulasi Minyak Jahe (*Zingiber officinale*) Oil. [Skripsi]. Semarang. Fakultas Teknologi Pertanian Universitas Katolik Soegijapranata.
- Guardeniz, G., and Ozen, B. 2009. Detection of Adulteration of Extra-Virgin Olive Oil by Chemometric Analysis of mid-Infrared Spectral Data. *Food Chemistry*, 116(2019): 519-525.
- Guillén, M.D., and Cabo, N., 1997. Characterization of Edible Oils and Lard by Fourier Transform Infrared Spectroscopy. Relationships Between Composition and Frequency of Concrete Bands in The Fingerprint Region. *Journal of The American Oil Chemists' Society*, 74(1997): 1281-1286.
- Gracia, M.J.L. 2012. Characterization and Authentication of Olive and other Vegetables Oils: New Analytical Methods. [Theses]. Springer Berlin Heidelberg.
- Greenfield, H., and Southgate, D.A.T. 2003. Food Composition Data: Production, Management and Use. Second edition. United Nation. Food and Agriculture Organization Publisher.
- Guntarti, A. 2018. Authentication of Dog Fat with Gas Chromatography-Mass Spectrometry Combined with Chemometrics. *International Journal of Chemistry*, 10(4): 124-129.
- Guntarti, A. dan Abidin, M.AZ. 2018. Analisis Lemak Anjing dalam Bakpao Ayam Menggunakan FTIR (*Fourier Transform Infrared*) Dikombinasi Kemometrika. *Media Farmasi*, 15(1): 34-42.
- Guntarti, A., Martono, S., Yuswanto, A. & Rohman, A. 2017. Analysis of Beef Meatball Adulteration with Wild Boar Meat Using Real-Time Polymerase Chain Reaction. *International Food Research Journal*, 24(6): 2451-2455.

- Isa, I. 2011. Penetapan Asam Lemak Linoleat dan Linolenat pada Minyak Kedelai secara Kromatografi Gas. *Saintek*, 6(1): 1-6.
- Jaswir, I., and Guntarti, A. 2021. Kerangka Riset Sains Halal Nasional: Teknologi Autentikasi Halal 4.0. Jakarta: Komite Nasional Ekonomi dan Keuangan Syariah.
- Klamt, A., Eckert, F., and Arlt, W. 2010. COMO-RS: An Alternative to Simulation for Calculating Thermodynamic Properties of Liquid Mixtures. *Annual Review of Chemical and Biomolecular Engineering*, 2010(1): 101-122
- Kurniawati, E., Rohman, A. and Triyana, K. 2014. Analysis of lard in meatball broth using Fourier transform infrared spectroscopy and chemometrics. *Meat Science*, 96(1): 94–98.
- Lerma-Gracia, M.J., Ramis-Ramos, G., Herrero-Martinez, J.M., and Simó-Alfonso, E.F. 2010. Authentication of Extra Virgin Olive Oils by Fourier-Transform Infrared Spectroscopy. *Food Chemistry*, 118: 78-83.
- Lin, J-H., Liu, L-Y., Yang, M-H., and Lee, M-H. 2004. Ethyl Acetate/Ethyl Alcohol Mixtures as an Alternative to Folch Reagent for Extrating Animal Lipids. *Journal of Agricultural and Food Chemistry*, 52(16): 4984-4986.
- Lisitsyn, A.B., Chernukha, I.M., and Ivankin, A.N. 2013. Comparative Study of Fatty Acid Composition of Meat Material from Various Animal Species. *Scientific Journal of Animal Science*, 2(5): 124-131.
- Lusas, E.W., Alam, M.S., Clough, R.C., and Riaz, M.N. 2012. Animal and Vegetables Fats, Oils, and Waxes. Editor : Kent, J.A. Handbook of Industrial Chemistry and Biotechnology. Springer US. Pp. 1323-1402.
- Mamuaja, C.F. 2017. Lipida. Manado. Unsrat Press.
- Manalu, H.Y., Sismindari and Rohman, A. 2019. The use of primer-specific targeting on mitochondrial cytochrome b combined with real-time polymerase chain reaction for the analysis of dog meat in meatballs. *Tropical Life Sciences Research*, 30(3): 1-14.
- Miller, J.N., and Miller, J.C. 2005. Statistics and Chemometrics for Analytical Chemistry. Fifth Edition. Harlow. Pearson Education Limited..
- Miller, J.N., and Miller, J.C. 2010. Statistics and Chemometrics for Analytical Chemistry. Sixth Edition. Harlow, Pearson Education Limited.

- Mohamad, K., Olsson, M., Andersson, G., Purwantara, B., van Tol, H.T.A., Rodriguez-Martinez, H., Colenbrander, B., and Lenstra, J.A. 2012. The Origin of Indonesian Cattle and Conservation Genetics of the Bali Cattle Breed. *Reproduction in Domestic animals* (1990). 47(SI): 18-20.
- Moros, J., Garrigues, S., and de la Guardia, M. 2010. Vibrational Spectroscopy Provides a Green Tool for Multi-Component Analysis. *Trends in Analytical Chemistry*. 29(2010): 578-591.
- Musdja, M.Y. 2018. The Risk of Consuming Haram Food from Medical Perspectives. *Malaysian Journal of Consumer and Family Economics*, 21(2): 1-12.
- Nafis, M.C. 2019. The Concept of Halal and Thayyib and its Implementation in Indonesia. *Journal of Halal Product and Research*, 2(1): 1-5.
- Nordin, F.N.M., and Radzi, C.W.J.W.M. 2021. Religion and Cosmetics: Guidelines for Preparing Products Aimed at the Muslim World Based on the Interpretation of Halal Cosmetics in Malaysia. *Journal of Cosmetic Science*, 72(2): 139-154.
- Norwili. 2020. Emergency Concept in Islamic Law. *Hamdard Islamicus*, 43(2): 690-704.
- Nura, M. 2007. *Memilih Makanan Halal*. Jakarta. Qultum Media.
- Nugraha, I., Utami, P.I., dan Rahayu, W.S. 2018. Analisis Asam Lemak Daging Anjing pada Bakso Sapi Menggunakan Gas Chromatography Mass Spectrometry (GCMS) yang Dikombinasikan dengan PCA (Principal Component Analysis). *Indonesian Journal of Halal*, 1(2): 117—124.
- Payne, J. 2000. *Panduan Lapangan Mamalia di Kalimantan, Sabah, Sarawak, dan Brunei*
- Pebriana, R.B. 2015. *Aplikasi Spektroskopi Inframerah dan Kemometrika pada Analisis Lipid Tikus dalam Bakso Sapi: Studi Perbandingan terhadap Tiga Metode Ekstraksi Lipid*. [Tesis]. Yogyakarta. Fakultas Farmasi Universitas Gadjah Mada.
- Pebriana, R.B., Rohman, A., Lukitaningsih, E. and Sudjadi. 2017. Development of FTIR Spectroscopy in Combination with Chemometrics for Analysis of Rat Meat in Beef Sausage Employing Three Lipid Extraction Systems. *International Journal of Food Properties*, 20(2): 1995–2005.
- Pérez-Palacios, T., Ruiz, J., Ferreira, I.M.P.L.V.O., Petisca, C., and Antequera, T. 2012. Effect of Solvent to Sample Ratio on Total Lipid Extracted and Fatty Acid Composition in Meat Product within Different fat Content. *Meat Science*, 91(3): 367-373

- Petrovic, M., Perez, S., Barcelo, D. 2013. Analysis, Removal, Effects and Risk of Pharmaceuticals in the Water Cycle. Amsterdam. Elsevier Science Publisher.
https://www.google.co.id/books/edition/Analysis_Removal_Effects_and_Risk_of_Pha/2fg9AAAAQBAJ?hl=id&gbpv=0 [diakses 16 Agustus 2022].
- Poiana, M-A., Mousdis, G., Alexa, E., Moigradean, G., Negrea, M., and Mateescu, C. 2012. Application of FT-IR Spectroscopy to Assess the Olive Oil Adulteration. *Journal of Agroalimentary Processes and Technologies*, 18(4): 277-282.
- Rahayu, W.S., Rohman, A., Martono, S., and Sudjadi, S. 2018. Application of FTIR Spectroscopy and Chemometrics for Halal Authentication of Beef Meatball Adulterated with Dog Meat. *Indonesian Journal of Chemistry*, 18(2): 376-381.
- Rahmania, H., Sudjadi and Rohman, A. 2015. The employment of FTIR Spectroscopy in Combination with Chemometrics for Analysis of Rat Meat in Meatball Formulation. *Meat Science*, 100(2015): 301-305.
- Ratnasari, I.A. 2016. Analisis Kandungan Lemak Anjing dalam Bakso yang beredar di Pasar Wage Purwokerto menggunakan Fourier Transform Infrared (FTIR) yang dikombinasi dengan Kemometrika sebagai Autentikasi Halal. [Skripsi]. Purwokerto. Fakultas Farmasi Universitas Muhammadiyah.
- Retra, K., Bleijerveld, O.B., van Gestel, R.A., Tielens, A.G.M., van Hellemond, J.J., and Brouwers, J.F. 2008. A Simple and Universal Method for the Preparation and Identification of Phospholipid Molecular Species. *Rapid Communications in Mass Spectrometry*, 22(2008): 1853-1862.
- Rohman, A. and Che Man, Y.b. 2011. The Chemometrics Approach Applied to FTIR Spectral Data for the Analysis of Rice Bran Oil in Extra Virgin Olive Oil. *Chemometrics and Intelligent Laboratory System*, 110(2012): 129-134.
- Rohman, A. 2012. Pengembangan Dan Analisis Produk Halal. Yogyakarta. Pusat Penelitian Produk Halal Laboratorium Penelitian dan Pengujian Terpadu (LPPT) Universitas Gadjah Mada dan Pustaka Pelajar.
- Rohman, A. 2013. Application of Fourier Transform Infrared Spectroscopy for Quality Control of Pharmaceutical Products: a Review, *Indonesian Journal of Pharmacy*, 23(1): 1-8.
- Rohman, A. 2014. Spektroskopi Inframerah dan Kemometrika untuk Analisis Farmasi. Yogyakarta. Pustaka Pelajar.

- Rohman, A. 2019. The Employment of Fourier Transform Infrared Spectroscopy Coupled with Chemometrics Techniques for Traceability and Authentication of Meat and Meat Product. *Journal of Advanced Veterinary and Animal Research*, 6(1): 9-17.
- Rohman, A., and Che Man, Y.B. 2011. Application of Fourier Transform Infrared (FT-IR) Spectroscopy Combined with Chemometrics for Authentication of Cod-Liver Oil. *Vibrational Spectroscopy*, 55:141-145
- Rohman, A., and Che Man, Y.B. 2011. Authentication Analysis of Cod Liver Oil from Beef Fat Using Fatty Acid Composition and FTIR Spectra. *Food Additives & Contaminant : Part A.*, 28: 1469-1474.
- Rohman, A., Sisindari, Erwanto, Y., and Che Man, Y.B. 2011. Analysis of pork adulteration in beef meatball using Fourier transform infrared (FTIR) spectroscopy. *Meat Science*, 88(1): 91-95.
- Rohman, A., and Putri, A.R. 2019. The Chemometrics Technique in Combination with Instrumental Analytical Methods Applied in Halal Authentication Analysis. *Indonesian Journal of Chemistry*, 19(1): 262-272.
- Rohman, A., Windarsih, A., Lukitaningsih, E., Rafi, M., Betania, K. & Fadzillah, N.A. 2020. The Use of FTIR and Raman Spectroscopy in Combination with Chemometrics for Analysis of Biomolecules in Biomedical Fluids: A review, *Biomedical Spectroscopy and Imaging*, 8(3-4): 55-71.
- Rohman, A., Riyanto, S., Windarsih, A., Irnawati., Khadijah, and Putri, A.R. 2020. *Karakterisasi Minyak dan Lemak*. Yogyakarta. Pustaka Pelajar.
- Rosadi, B. 2014. *Taksonomi vertebrata*. Tangerang Selatan. Penerbit Universitas Terbuka.
- Saini, R.K., Prasad, P., Shang, X., and Keum, Y.S. 2021. Advances in Lipid Extraction Methods-A Review. *International Journal of Molecular Sciences*, 22(13643): 1-19.
- Setiabudi, A., Hardian, R., dan Muzakir A. 2012. *Karakterisasi Material: Prinsip dan Aplikasinya dalam Penelitian Kimia*. Bandung, Upi Press.
- Setianingsih, T., dan Prananto, Y.P. 2020. *Spektroskopi Inframerah untuk Karakterisasi Material Organik*. Malang. Universitas Brawijaya Press. https://www.google.co.id/books/edition/Spektroskopi_Inframerah_untuk_Karakteris/Myn5DwAAQBAJ?hl=id&gbpv=1&dq=spektroskopi+inframerah&pg=PA10&printsec=frontcover [diakses 16 Agustus 2022].
- Sihombing, D.T.H. 1997. *Ilmu Ternak Babi*. Bogor. Fakultas Peternakan IPB.
- Soeparo. 2011. *Ilmu Nutrisi dan Gizi Daging*. Yogyakarta. Gadjah Mada University Press.

- Stuart, B. 2005. *Infrared Spectroscopy: Fundamental and Application*. Chichester, UK. Jhon and Wiley Sons Ltd.
- Sudjadi, dan Rohman, A. 2018. *Analisis Derivat Babi*. Yogyakarta. Gadjah Mada University Press.
- Tathma, F.R., Wibowo, T., Taufik, I.M., and Cahyadi, M. 2019. Color and Texture Analyses of Meatballs Made from Beef, Pork, Rat, Dog Meats, and Their Mixtures. In *International Conference on Food Science and Engineering*, IOP Conference Series: Materials Science and Engineering. 633(2019): 012029.
- Thanakiakraia, P., Dechnakarina, J., Ngasaman., R., and Kitpipit, T. 2018. Direct pentaplex PCR assay : an Adjunct Panel for Meat Species Identification in Asian Food Product. *Food Chemistry*, 271(2018): 767-772.
- Vivikananda, E. 2014. Deteksi DNA Babi dan DNA Sapi dengan menggunakan Metode *Insulated Isothermal Polymerase Chain Reaction* (ii-PCR). [Skripsi]. Jakarta.. Fakultas Kedokteran dan Ilmu Kesehatan, Universitas Islam Negeri Syarif Hidayatullah.
- Widowati, E.W. 2013. *Desain Primer Sitokrom B (cyt b) Sebagai Salah Satu Komponen PCR (polymerase chain reaction) untuk Deteksi DNA Babi [Laporan Penelitian Individul]*. Lembaga Penelitian Universitas Islam Negeri Sunan Kalijaga.
- Windarsih, A., Rohman, A., Irnawati, and Riyanto, S. 2020. The Combination of Vibrational Spectroscopy and Chemometrics for Analysis of Milk Product Adulteration. *International Journal of Food Science*, 2021(8853358): 1-15.
- Wijaya, Y.P. 2009. *Fakta Ilmiah tentang Keharaman Babi*. Bandung. <https://yogapw.wordpress.com>. 28 hal. [diakses 25 Agustus 2022].
- Witjaksono, G., Saputra, I., Latief, M., Jaswir, I., Akmeliawati, R., Abdelkreem Saeed Rabih, A. 2017. Non-Halal Biomarkers Identification Based on Fourier Transform Infrared Spectroscopy (FTIR) and Gas Chromatography Time of Flight Mass Spectroscopy (GC-TOF MS) Technique. In : Abd Wahid, M. *International Conference on Applied Photonics and Electronics (InCAPE)*. Malaysia, August 9-10th. EPJ Web of Conference, 01007-1-01007-5.
- Yardimci, M. 2020. Impact of Pork Consumption on Human Health. *International European Conference on Interdisciplinary Scientific Researches*. Turkey, 4-5 Juli 2020.

- Yunus, N.S.N.M., Rashid, W.E.W., Ariffin, N.M., and Rashid, N.M. 2014. Muslim's Purchase Intention Towards Non-Muslim's Halal Packaged Food Manufacturer. *Procedia Social and Behavioral Sciences*, 130(2014): 145-154.
- Yuliani, S.H., Sandrapitaloka, A.S., Restiana, F.R., Aji, P.D.T., Gani, M.R., and Riswanto, F.D.O. 2019. Effects of Particle Size, Extraction Time, and Solvent on Daidzein Yield Extracted from Tempeh. *Journal of Pharmaceutical Sciences and Community*, 16(1): 44-49.
- Yuswan, M.H., Aizat, W.M., Desa, M.N.M., Hashim, A.M., Rahim, N.A., Mustafa, S., Mohamed, R. and Lamasudin, D.U. 2019. Improved Gel-Enhanced Liquid Chromatography-Mass Spectrometry by Chemometrics for Halal Proteomics. *Chemometrics and Intelligent Laboratory Systems*, 192(2019): 1-7.

