



DAFTAR PUSTAKA

- Allwood, J. W., Cheung, W., Xu, Y., Mumm, R., De Vos, R. C. H., Deborde, C., Biais, B., Maucourt, M., Berger, Y., Schaffer, A. A., Rolin, D., Moing, A., Hall, R. D., & Goodacre, R. (2014). Metabolomics in melon: A new opportunity for aroma analysis. *Phytochemistry*, 99, 61–72. <https://doi.org/10.1016/j.phytochem.2013.12.010>
- Ardiyansyah, Y., Muhadi, A., Sunjarwanto, R., & Pangestu, R. A. (2020). *perbandingan metode principal component analysis dan hidden markov model pada pengenalan wajah*. 4.
- Barros-Castillo, J. C., Calderón-Santoyo, M., Cuevas-Glory, L. F., Pino, J. A., & Ragazzo-Sánchez, J. A. (2021). Volatile profiles of five jackfruit (*Artocarpus heterophyllus* Lam.) cultivars grown in the Mexican Pacific area. *Food Research International*, 139, 109961. <https://doi.org/10.1016/j.foodres.2020.109961>
- Baskara, S., Lelono, D., & Widodo, T. W. (2016). Pengembangan Hidung Elektronik untuk Klasifikasi Mutu Minyak Goreng dengan Metode Principal Component Analysis. *IJEIS (Indonesian Journal of Electronics and Instrumentation Systems)*, 6(2), 221. <https://doi.org/10.22146/ijeis.15347>
- Boeker, P. (2014). On ‘Electronic Nose’ methodology. *Sensors and Actuators B: Chemical*, 204, 2–17. <https://doi.org/10.1016/j.snb.2014.07.087>
- Calvini, R., & Pigani, L. (2022). Toward the Development of Combined Artificial Sensing Systems for Food Quality Evaluation: A Review on the Application of Data Fusion of Electronic Noses, Electronic Tongues and Electronic Eyes. *Sensors*, 22(2), 577. <https://doi.org/10.3390/s22020577>
- Cao, Y., Zhang, Y., Lin, M., Wu, D., & Chen, K. (2022). Non-Destructive Detection of Damaged Strawberries after Impact Based on Analyzing Volatile Organic Compounds. *Sensors*, 22(2), 427. <https://doi.org/10.3390/s22020427>
- Cervellieri, S., Lippolis, V., Mancini, E., Pascale, M., Logrieco, A. F., & De Girolamo, A. (2022). Mass spectrometry-based electronic nose to authenticate 100% Italian durum wheat pasta and characterization of volatile compounds. *Food Chemistry*, 383, 132548. <https://doi.org/10.1016/j.foodchem.2022.132548>
- Cozzolino, R., Pace, B., Palumbo, M., Laurino, C., Picariello, G., Siano, F., De Giulio, B., Pelosi, S., & Cefola, M. (2021). Profiles of Volatile and Phenolic



Compounds as Markers of Ripening Stage in Candonga Strawberries. *Foods*, 10(12), 3102. <https://doi.org/10.3390/foods10123102>

Gonda, I., Burger, Y., Schaffer, A. A., Ibdah, M., Tadmor, Y., Katzir, N., Fait, A., & Lewinsohn, E. (2016). Biosynthesis and perception of melon aroma. In D. Havkin-Frenkel & N. Dudai (Eds.), *Biotechnology in Flavor Production* (pp. 281–305). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781118354056.ch11>

Guohua, H., Yuling, W., Dandan, Y., & Wenwen, D. (2013). Fuji Apple Storage Time Predictive Method Using Electronic Nose. *Food Analytical Methods*, 6(1), 82–88. <https://doi.org/10.1007/s12161-012-9414-6>

Huang, Y., Doh, I.-J., & Bae, E. (2021). Design and Validation of a Portable Machine Learning-Based Electronic Nose. *Sensors*, 21(11), 3923. <https://doi.org/10.3390/s21113923>

Inca, I., Widodo, T. W., & Lelono, D. (2018). Klasifikasi Teh Hijau dan Teh Hitam Tambi-Pagilaran dengan Metode Principal Component Analysis (PCA) Menggunakan E-Nose. *IJEIS (Indonesian Journal of Electronics and Instrumentation Systems)*, 8(1), 61. <https://doi.org/10.22146/ijeis.28718>

Jia, W., Liang, G., Tian, H., Sun, J., & Wan, C. (2019). Electronic Nose-Based Technique for Rapid Detection and Recognition of Moldy Apples. *Sensors*, 19(7), 1526. <https://doi.org/10.3390/s19071526>

John, A. T., Murugappan, K., Nisbet, D. R., & Tricoli, A. (2021). An Outlook of Recent Advances in Chemiresistive Sensor-Based Electronic Nose Systems for Food Quality and Environmental Monitoring. *Sensors*, 21(7), 2271. <https://doi.org/10.3390/s21072271>

Lelono, D., & Chairiawan, M. A. (2013). Karakterisasi Pola Aroma Salak Pondoh dengan E-Nose Berbasis Sensor Metal Oksida. 3(1), 12.

Lelono, D., Nuradi, H., Satriyo, M. R., Widodo, T. W., Dharmawan, A., & Istiyanto, J. E. (2019). Comparison of Difference, Relative and Fractional Methods for Classification of The Black Tea Based on Electronic Nose. *2019 International Conference on Computer Engineering, Network, and Intelligent Multimedia (CENIM)*, 1–7. <https://doi.org/10.1109/CENIM48368.2019.8973308>

Lelono, D., Permana, D., Achmad, F., Widodo, T. W., Bramantya, M. A., & Triyana, K. (2018). Quality Classification of Chili Sauce Using Electronic Nose with Principal Component Analysis. *2018 4th International Conference on Science and Technology (ICST)*, 1–5. <https://doi.org/10.1109/ICSTC.2018.8528292>



- Lelono, D., & Triyana, K. (2019). Suhu Pemanas Sampel Optimal Untuk Klasifikasi Teh Hitam Menggunakan Electronic Nose. *IJEIS (Indonesian Journal of Electronics and Instrumentation Systems)*, 9(1), 45. <https://doi.org/10.22146/ijeis.39683>
- Lelono, D., Triyana, K., Hartati, S., & Istiyanto, J. E. (2016). *Classification of Indonesia black teas based on quality by using electronic nose and principal component analysis*. 020003. <https://doi.org/10.1063/1.4958468>
- Liu, H., Li, Q., Yan, B., Zhang, L., & Gu, Y. (2018). Bionic Electronic Nose Based on MOS Sensors Array and Machine Learning Algorithms Used for Wine Properties Detection. *Sensors*, 19(1), 45. <https://doi.org/10.3390/s19010045>
- Liu Li, Li Xinyu, Li Zhengkun, & Shi Yinggang. (2018). Application of electronic nose in detection of fresh vegetables freezing time considering odor identification technology. *Chemical Engineering Transactions*, 68, 265–270. <https://doi.org/10.3303/CET1868045>
- Loutfi, A., Coradeschi, S., Mani, G. K., Shankar, P., & Rayappan, J. B. B. (2015). Electronic noses for food quality: A review. *Journal of Food Engineering*, 144, 103–111. <https://doi.org/10.1016/j.jfoodeng.2014.07.019>
- Machungo, C., Berna, A. Z., McNevin, D., Wang, R., & Trowell, S. (2022). Comparison of the performance of metal oxide and conducting polymer electronic noses for detection of aflatoxin using artificially contaminated maize. *Sensors and Actuators B: Chemical*, 360, 131681. <https://doi.org/10.1016/j.snb.2022.131681>
- Mu, F., Gu, Y., Zhang, J., & Zhang, L. (2020). Milk Source Identification and Milk Quality Estimation Using an Electronic Nose and Machine Learning Techniques. *Sensors*, 20(15), 4238. <https://doi.org/10.3390/s20154238>
- Ong, B. T., Nazimah, S. A. H., Tan, C. P., Mirhosseini, H., Osman, A., Mat Hashim, D., & Rusul, G. (2008). Analysis of volatile compounds in five jackfruit (*Artocarpus heterophyllus* L.) cultivars using solid-phase microextraction (SPME) and gas chromatography-time-of-flight mass spectrometry (GC-TOFMS). *Journal of Food Composition and Analysis*, 21(5), 416–422. <https://doi.org/10.1016/j.jfca.2008.03.002>
- Padilla-Jiménez, S. M., Angoa-Pérez, M. V., Mena-Violante, H. G., Oyoque-Salcedo, G., Montañez-Soto, J. L., & Oregel-Zamudio, E. (2021). Identification of Organic Volatile Markers Associated with Aroma during Maturation of Strawberry Fruits. *Molecules*, 26(2), 504. <https://doi.org/10.3390/molecules26020504>



- Poornima, K., & Preetha, R. (2017). Biosynthesis of Food Flavours and Fragrances—A Review. *Asian J. Chem.*, 29(11), 8.
- Qu, C., Liu, C., Gu, Y., Chai, S., Feng, C., & Chen, B. (2022). Open-set gas recognition: A case-study based on an electronic nose dataset. *Sensors and Actuators B: Chemical*, 360, 131652. <https://doi.org/10.1016/j.snb.2022.131652>
- Radi, R., Barokah, B., Rohmah, D. N., Wahyudi, E., Adhityamurti, M. D., & Yuroto Putro, J. P. L. (2021). Implementation of an electronic nose for classification of synthetic flavors. *Bulletin of Electrical Engineering and Informatics*, 10(3), 1283–1290. <https://doi.org/10.11591/eei.v10i3.3018>
- Radi, R., Wahyudi, E., Adhityamurti, M. D., Putro, J. P. L. Y., Barokah, B., & Rohmah, D. N. (2021). Freshness assessment of tilapia fish in traditional market based on an electronic nose. *Bulletin of Electrical Engineering and Informatics*, 10(5), 2466–2476. <https://doi.org/10.11591/eei.v10i5.3111>
- Rivai, M. (2007). Pengaruh Principle Component Analysis Terhadap Tingkat Identifikasi Neural Network Pada Sistem Sensor Gas. *Telkomnika (Telecommunication Computing Electronics and Control)*, 5(3), 159. <https://doi.org/10.12928/telkomnika.v5i3.1360>
- Rosyad, F., & Lenono, D. (2016). Klasifikasi Kemurnian Daging Sapi Berbasis Electronic Nose dengan Metode Principal Component Analysis. *IJEIS (Indonesian Journal of Electronics and Instrumentation Systems)*, 6(1), 47. <https://doi.org/10.22146/ijeis.10770>
- Roy, M., & Yadav, B. K. (2021). Electronic nose for detection of food adulteration: A review. *Journal of Food Science and Technology*. <https://doi.org/10.1007/s13197-021-05057-w>
- Rusinek, R., Gawrysiak-Witulska, M., Siger, A., Oniszczuk, A., Ptaszyńska, A. A., Knaga, J., Malaga-Tobola, U., & Gancarz, M. (2021). Effect of Supplementation of Flour with Fruit Fiber on the Volatile Compound Profile in Bread. *Sensors*, 21(8), 2812. <https://doi.org/10.3390/s21082812>
- Seesaard, T., Lorwongtragool, P., & Kerdcharoen, T. (2015). Development of Fabric-Based Chemical Gas Sensors for Use as Wearable Electronic Noses. *Sensors*, 15(1), 1885–1902. <https://doi.org/10.3390/s150101885>
- Syakhala, A. R., Puspitaningrum, D., & Purwandari, E. P. (2015). *perbandingan metode principal component analysis (pca) dengan metode hidden markov model (hmm) dalam pengenalan identitas seseorang melalui wajah*. 3, 14.



- Taylor, A. J., & Linforth, R. S. T. (Eds.). (2010). *Food flavour technology* (2nd ed). Wiley-Blackwell.
- Tazi, I., Isnaini, N. L., Mutmainnah, M., & Ainur, A. (2019). Principal Component Analysis (PCA) Method for Classification of Beef and Pork Aroma Based on Electronic Nose. *Indonesian Journal of Halal Research*, 1(1), 5–8. <https://doi.org/10.15575/ijhar.v1i1.4155>
- Viana, L., & English, M. (2021). The application of chromatography in the study of off-flavour compounds in pulses and pulse by-products. *LWT*, 150, 111981. <https://doi.org/10.1016/j.lwt.2021.111981>
- Wang, B., Xu, S., & Sun, D.-W. (2010). Application of the electronic nose to the identification of different milk flavorings. *Food Research International*, 43(1), 255–262. <https://doi.org/10.1016/j.foodres.2009.09.018>
- Weerawatanakorn, M., Wu, J.-C., Pan, M.-H., & Ho, C.-T. (2015). Reactivity and stability of selected flavor compounds. *Journal of Food and Drug Analysis*, 23(2), 176–190. <https://doi.org/10.1016/j.jfda.2015.02.001>
- Wu, X., Zhu, J., Wu, B., Zhao, C., Sun, J., & Dai, C. (2019). Discrimination of Chinese Liquors Based on Electronic Nose and Fuzzy Discriminant Principal Component Analysis. *Foods*, 8(1), 38. <https://doi.org/10.3390/foods8010038>
- Yu, H., Dai, X., Yao, G., & Xiao, Z. (2014). Application of Gas Chromatography-Based Electronic Nose for Classification of Chinese Rice Wine by Wine Age. *Food Analytical Methods*, 7(7), 1489–1497. <https://doi.org/10.1007/s12161-013-9778-2>