

DAFTAR PUSTAKA

- Abdal-hay, A., Hamdy, A.S., Abdellah, M.Y., and Lim, J., 2014, In vitro bioactivity of implantable Ti materials coated with PVAc membrane layer, *Mater. Lett.*, 126, 267–270.
- Abhilash, M., and Thomas, D., 2017, 15 - Biopolymers for Biocomposites and Chemical Sensor Applications,. In, Sadasivuni, K.K., Ponnammma, D., Kim, J., Cabibihan, J.-J., and AlMaadeed, M.A.B.T.-B.C. in E., (eds). Elsevier, pp. 405–435.
- Acik, G., Cansoy, C.E., and Kamaci, M., 2019, Effect of flow rate on wetting and optical properties of electrospun poly(vinyl acetate) micro-fibers, *Colloid Polym. Sci.*, 297, 77–83.
- Adamy, Z., Sayunts, A., Aroutiounian, V., Khachaturyan, E., Vrnata, M., Fitl, P., and Vlček, J., 2018, Nanocomposite sensors of propylene glycol, dimethylformamide and formaldehyde vapors, *J. Sensors Sens. Syst.*, 7, 31–41.
- Aflaha, R., Afiyanti, H., Azizah, Z.N., Khoirudin, H., Rianjanu, A., Kusumaatmaja, A., Roto, R., and Triyana, K., 2023, Improving ammonia sensing performance of quartz crystal microbalance (QCM) coated with nanofibers and polyaniline (PANi) overlay, *Biosens. Bioelectron. X*, 13, 100300.
- Aneja, V.P., Schlesinger, W.H., and Erisman, J.W., 2009, Effects of agriculture upon the air quality and climate: Research, policy, and regulations, *Environ. Sci. Technol.*, 43, 4234–4240.
- Asmatulu, R., 2016, Highly Hydrophilic Electrospun Polyacrylonitrile/ Polyvinylpyrrolidone Nanofibers Incorporated with Gentamicin as Filter Medium for Dam Water and Wastewater Treatment, *J. Membr. Sep. Technol.*, 5, 38–56.
- Behera, S.N., Sharma, M., Aneja, V.P., and Balasubramanian, R., 2013, Ammonia in the atmosphere: A review on emission sources, atmospheric chemistry and deposition on terrestrial bodies, *Environ. Sci. Pollut. Res.*, 20, 8092–8131.
- Bhardwaj, N., and Kundu, S.C., 2010, Electrospinning: A fascinating fiber fabrication technique, *Biotechnol. Adv.*, 28, 325–347.
- Das, R., Bandyopadhyay, R., and Pramanik, P., 2019, Stereo-regulated Schiff base siloxane polymer coated QCM sensor for amine vapor detection, *Mater. Chem. Phys.*, 226, 214–219.
- Diltemiz, S.E., and Ecevit, K., 2019, High-performance formaldehyde adsorption on CuO/ZnO composite nanofiber coated QCM sensors, *J. Alloys Compd.*, 783, 608–616.
- Du, Q., Tang, J., Xu, M., Lyu, F., Zhang, J., Qiu, Y., Liu, J., and Ding, Y., 2021, Whey protein and maltodextrin-stabilized oil-in-water emulsions: Effects of dextrose equivalent, *Food Chem.*, 339, 128094.
- Essiet, I., 2013, Diagnosis of kidney failure by analysis of the concentration of ammonia in exhaled human breath, *J. Emerg. Trends Eng. Appl. Sci.*, 4, 859–862.
- Feng, W., Wang, Z., Zhang, T., Campanella, O.H., and Miao, M., 2023, Biomimetic

- synthesis of maltodextrin-derived dendritic nanoparticle and its structural characterizations, *Carbohydr. Polym.*, 312, 120816.
- Franceschini, I., Selmin, F., Pagani, S., Minghetti, P., and Cilurzo, F., 2016, Nanofiller for the mechanical reinforcement of maltodextrins orodispersible films, *Carbohydr. Polym.*, 136, 676–681.
- Garnero, C., Aloisio, C., and Longhi, M., 2013, Ibuprofen-Maltodextrin Interaction: Study of Enantiomeric Recognition and Complex Characterization, 2013, 18–30.
- Hosseini, M.S., Iraj, A., Vossoughi, M., and Hosseini, M., 2023, L-lysine biodecor based on a TOCNFs-coated Quartz Crystal Microbalance (QCM), *Eur. Polym. J.*, 186, 111831.
- Humairah, N.A., Nurijal, I., Ainus Sofa, S., Chaerunnisa, A., Roto, R., Kusumaatmaja, A., Hadi Sujiono, E., and Triyana, K., 2023, Molecularly imprinted polyvinyl acetate doped with boric acid for sensitivity and selectivity of ammonia sensing by QCM, *Biosens. Bioelectron. X*, 13, 100320.
- Jannesari, M., Varshosaz, J., Morshed, M., and Zamani, M., 2011, Composite poly(vinyl alcohol)/poly(vinyl acetate) electrospun nanofibrous mats as a novel wound dressing matrix for controlled release of drugs., *Int. J. Nanomedicine*, 6, 993–1003.
- Jin, Xuefang, Jin, Xiaoyong, Liu, X., Chen, L., Jiang, J., Shen, G., and Yu, R., 2009, Biocatalyzed deposition amplification for detection of aflatoxin B1 based on quartz crystal microbalance, *Anal. Chim. Acta*, 645, 92–97.
- Julian, T., Rianjanu, A., Hidayat, S.N., Kusumaatmaja, A., Roto, R., and Triyana, K., 2019, Quartz crystal microbalance coated with PEDOT-PSS/PVA nanofiber for a high-performance humidity sensor, *J. Sensors Sens. Syst.*, 8, 243–250.
- Kamrani, H., 2018, Synthesis and Characterization of Copper Nanoparticles by Bis-(Acetylacetonato)-Copper (II) Using Nonionic Surfactants and the Effect of Their Structures on Nanoparticles Size and Yield, *Open J. Inorg. Non-metallic Mater.*, 08, 11–21.
- Kanyuck, K.M., Mills, T.B., Norton, I.T., and Norton-Welch, A.B., 2019, Temperature influences on network formation of low DE maltodextrin gels, *Carbohydr. Polym.*, 218, 170–178.
- Khan, H.U., Jan, M.T., Iqbal, M., Shah, M., Ullah, I., Khan, J., Mahmood, K., Niaz, A., and Tariq, M., 2020, Synthesis, characterization and electrical conductivity of silver doped polyvinyl acetate/graphene nanocomposites: A novel humidity sensor, *Zeitschrift fur Phys. Chemie*, 234, 27–43.
- Kumar, A., and Sharma, C., 2022, Recent update of the various sources originating ghost peaks in gas chromatography: A review, *J. Chromatogr. A*, 1685, 463625.
- Kwak, D., Lei, Y., and Maric, R., 2019, Ammonia gas sensors: A comprehensive review, *Talanta*, 204, 713–730.
- Lalasa, P., Vishal Gupta, N., Raghunandan, H. V., Prathusha, P.L., and Athkuri, K., 2013, A review on applications of GAMP -5 in pharmaceutical industries, *Int. J. Drug Dev. Res.*, 5, 4–16.
- Liu, X., Wang, J., and Hou, J., 2022, Repeatability and sensitivity of quartz crystal

- microbalance (QCM) sensor array modified with four sensitive materials, *Mater. Sci. Semicond. Process.*, 147, 106764.
- Marturi, N., 2015, Vision and visual servoing for nanomanipulation and nanocharacterization in scanning electron microscope. Micro and nanotechnologies/Microelectronics,.
- Mirzaei, A., Leonardi, S.G., and Neri, G., 2016, Detection of hazardous volatile organic compounds (VOCs) by metal oxide nanostructures-based gas sensors: A review, *Ceram. Int.*, 42, 15119–15141.
- Nagar, P., Chauhan, I., and Mohd, Y., 2011, Insights into polymers: film formers in mouth dissolving films, *Drug Invent. Today*, 201206, 280–289.
- Nandiyanto, A.B.D., Oktiani, R., and Ragadhita, R., 2019, How to read and interpret ftir spectroscopy of organic material, *Indones. J. Sci. Technol.*, 4, 97–118.
- Ojeda, J., and Dittrich, M., 2012, Fourier Transform Infrared Spectroscopy for Molecular, *Microb. Syst. Biol. Methods Protoc. Methods Mol. Biol.*, 881, 279–306.
- Pacheco, M.S., Barbieri, D., da Silva, C.F., and de Moraes, M.A., 2021, A review on orally disintegrating films (ODFs) made from natural polymers such as pullulan, maltodextrin, starch, and others, *Int. J. Biol. Macromol.*, 178, 504–513.
- Park, J.Y., Lee, I.H., and Bea, G.N., 2008, Optimization of the electrospinning conditions for preparation of nanofibers from polyvinylacetate (PVAc) in ethanol solvent, *J. Ind. Eng. Chem.*, 14, 707–713.
- Roto, R., Rianjanu, A., Fatyadi, I.A., Kusumaatmaja, A., and Triyana, K., 2020, Enhanced sensitivity and selectivity of ammonia sensing by QCM modified with boric acid-doped PVAc nanofiber, *Sensors Actuators, A Phys.*, 304, 111902.
- Roto, R., Rianjanu, A., Rahmawati, A., Fatyadi, I.A., Yulianto, N., Majid, N., Syamsu, I., Wasisto, H.S., and Triyana, K., 2020, Quartz Crystal Microbalances Functionalized with Citric Acid-Doped Polyvinyl Acetate Nanofibers for Ammonia Sensing, *ACS Appl. Nano Mater.*, 3, 5687–5697.
- Sara, S.M., Al-Dhahebi, A.M., and Mohamed Saheed, M.S., 2022, Recent Advances in Graphene-Based Nanocomposites for Ammonia Detection, *Polymers (Basel)*, 14, .
- Si, Y., Shi, S., and Hu, J., 2023, Applications of electrospinning in human health: From detection, protection, regulation to reconstruction, *Nano Today*, 48, 101723.
- Tang, L., Chen, W., Chen, B., Lv, R., Zheng, X., Rong, C., Lu, B., and Huang, B., 2021, Sensitive and renewable quartz crystal microbalance humidity sensor based on nitrocellulose nanocrystals, *Sensors Actuators, B Chem.*, 327, 128944.
- Thomas, A., and Jeyaprakash, B.G., 2022, Selective detection of ammonia by rGO decorated nanostructured ZnO for poultry and farm field applications, *Synth. Met.*, 290, 117140.
- Ummah, A.R., 2018, Karakterisasi Sensor Quartz Crystal Microbalance (QCM) dengan Pelapisan Membran Lipid Oleyl Alkohol Terhadap Respon HCl dan

NaCl, 1–94.

- Vargas-Muñoz, D.P., and Kurozawa, L.E., 2020, Influence of combined hydrolyzed collagen and maltodextrin as carrier agents in spray drying of cocona pulp TT - Influência da mistura de colágeno hidrolizado e maltodextrina como agentes carreadores na secagem por atomização de polpa de cocona, *Brazilian J. Food Technol.*, 23, 1–15.
- Wang, K., Wu, J., and Zhao, X., 2019, Review of measurement technologies for air pollutants at livestock and poultry farms | 畜禽场空气污染物检测技术综述, *Sci. Agric. Sin.*, 52, 1458–1474.
- Wang, X., Cui, F., Lin, J., Ding, B., Yu, J., and Al-Deyab, S.S., 2012, Functionalized nanoporous TiO₂ fibers on quartz crystal microbalance platform for formaldehyde sensor, *Sensors Actuators, B Chem.*, 171–172, 658–665.
- Wen, T., Sang, M., Wang, M., Han, L., Gong, Z., Tang, X., Long, X., Xiong, H., and Peng, H., 2021, Sensors and Actuators : B . Chemical Rapid detection of d-limonene emanating from citrus infestation by *Bactrocera dorsalis* (Hendel) using a developed gas-sensing system based on QCM sensors coated with ethyl cellulose, *Sensors Actuators B. Chem.*, 328, 129048.
- World Health Organization, 1990, AMMONIA HEALTH AND SAFETY GUIDE, *Int. Program. Chem. Saf.*, 27.
- Xiao, Z., Xia, J., Zhao, Q., Niu, Y., and Zhao, D., 2022, Maltodextrin as wall material for microcapsules: A review, *Carbohydr. Polym.*, 298, 120113.
- Xue, J., Wu, T., Dai, Y., and Xia, Y., 2019, Electrospinning and electrospun nanofibers: Methods, materials, and applications, *Chem. Rev.*, 119, 5298–5415.
- Yağmuroğlu, O., and Diltemiz, S.E., 2020, Development of QCM based biosensor for the selective and sensitive detection of paraoxon, *Anal. Biochem.*, 591, .
- Zaffaroni, R., Ripepi, D., Middelkoop, J., and Mulder, F.M., 2020, Gas Chromatographic Method for in Situ Ammonia Quantification at Parts per Billion Levels, *ACS Energy Lett.*, 5, 3773–3777.
- Zhang, B., Li, Z., Li, C., Li, M., Fu, C., Tao, R., Zha, X. hu, Li, H., and Luo, J., 2023, High-sensitive ppb-level ammonia QCM sensor based on sulfur doped Ti₃C₂T_x MXene, *Sensors Actuators A Phys.*, 350, 114138.
- Zhang, D., Kang, Z., Liu, X., Guo, J., and Yang, Y., 2022, Highly sensitive ammonia sensor based on PSS doped ZIF-8-derived porous carbon/polyaniline hybrid film coated on quartz crystal microbalance, *Sensors Actuators B Chem.*, 357, 131419.
- Zhang, D., Wang, D., Li, P., Zhou, X., Zong, X., and Dong, G., 2018, Facile fabrication of high-performance QCM humidity sensor based on layer-by-layer self-assembled polyaniline/graphene oxide nanocomposite film, *Sensors Actuators B Chem.*, 255, 1869–1877.
- Zhang, M., Chen, J., Mao, X., He, Y., Li, R., Wang, M., Wang, Y., He, L., Yuan, M., Feng, X., Hu, J., and Wu, G., 2022, Fluorescent nonwoven fabric with synergistic dual fluorescence emission for visible and selective ammonia gas detection, *Radiat. Phys. Chem.*, 201, 110453.
- Zhang, Y., Wu, S.-Y., Krishnan, S., Wang, K., Queen, A., Aneja, V.P., and Arya,

S.P., 2008, Modeling agricultural air quality: Current status, major challenges, and outlook, *Atmos. Environ.*, 42, 3218–3237.