

DAFTAR PUSTAKA

- Abdal-Hay, A., Hamdy Makhlof, A. S. and Khalil, K. A. (2015) 'Novel, Facile, Single-Step Technique of Polymer/TiO₂ Nanofiber Composites Membrane for Photodegradation of Methylene Blue', *ACS Applied Materials and Interfaces*, 7(24), pp. 13329–13341. doi: 10.1021/acsami.5b01418.
- 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 and Polymer Science*, 297(1), pp. 77–83. doi: 10.1007/s00396-018-4443-3.
- Alder, J. F. and McCallum, J. J. (1983) 'Piezoelectric crystals for mass and chemical measurements a review', *The Analyst*, 108(1291), pp. 1169–1189. doi: 10.1039/an9830801169.
- Amann, M. and Minge, O. (2012) 'Biodegradability of poly(vinyl acetate) and related polymers', *Advances in Polymer Science*, 245(November 2011), pp. 137–172. doi: 10.1007/12-2011-153.
- Andle, J. C. *et al.* (1992) 'An acoustic plate mode biosensor', *Sensors and Actuators: B. Chemical*, 8(2), pp. 191–198. doi: 10.1016/0925-4005(92)80180-6.
- Baumgartner, F. N. (1954) *Relation of Molecular Structure to Detergency of Some Alkylbenzene Sulfonates*, *Industrial & Engineering Chemistry*. doi: 10.1021/ie50534a061.
- Bethell, D. E. and Sheppard, N. (1955) 'The infra-red spectrum and structure of boric acid', *Transactions of the Faraday Society*, 51, pp. 9–15. doi: 10.1039/TF9555100009.
- Bornside, D. ., Macosko, C. and Scriven, L. . (1987) 'Modeling of Spin Coating', *Journal of imaging technology*, 13(4), pp. 122–130. Available at: https://www.scopus.com/record/display.uri?eid=2-s2.0-0023400165&origin=inward&txGid=71ba77521fe8bad0c5ee4d5f34985ad0&featureToggles=FEATURE_NEW_DOC_DETAILS_EXPORT:1.
- Bouhidel, K. E. and Rumeau, M. (2004) 'Ion-exchange membrane fouling by boric acid in the electrodialysis of nickel electroplating rinsing waters: Generalization of our results', *Desalination*, 167(1–3), pp. 301–310. doi: 10.1016/j.desal.2004.06.139.
- Bunde, R. L., Jarvi, E. J. and Rosentreter, J. J. (1998) 'Piezoelectric quartz crystal biosensors', *Talanta*, 46(6), pp. 1223–1236. doi: 10.1016/S0039-9140(97)00392-5.
- Cady, W. G. (1946) *Piezoelectricity: an introduction to the theory and applications of electromechanical phenomena in crystals*. New York: Mc-Graw Hill Book Company.
- Chan, M. M. *et al.* (2019) 'Links Vascular Dysfunctions and the Autoimmune Disease Rheumatoid Arthritis', *Nutrients*, 11(8), pp. 1–18. Available at: <https://pubmed.ncbi.nlm.nih.gov/31394758/>.

Chen, W. *et al.* (2018) 'GO/Cu₂O nanocomposite based QCM gas sensor for trimethylamine detection under low concentrations', *Sensors and Actuators, B: Chemical*, 273(January), pp. 498–504. doi: 10.1016/j.snb.2018.06.062.

Cohen, E. and Lightfoot, E. J. (2011) 'Coating Processes', in *Kirk-Othmer Encyclopedia of Chemical Technology*. Hoboken, NJ, USA: John Wiley & Sons, Inc., pp. 231–5. doi: 10.1002/0471238961.1921182203150805.a01.pub3.

Dasgupta, S. *et al.* (2020) 'Development of Linseed Oil Based Quartz Crystal Microbalance Sensor for Detection of Trimethylamine', *2020 International Conference on Emerging Frontiers in Electrical and Electronic Technologies, ICEFEET 2020*, pp. 1–4. doi: 10.1109/ICEFEET49149.2020.9186988.

Deakin, M. R. and Buttry, D. A. (1989) 'Electrochemical applications of the quartz crystal microbalance', *Analytical Chemistry*, 61(20), pp. 1147A–1154A. doi: 10.1021/ac00195a001.

Egashira, M., Shimizu, Y. and Takao, Y. (1990) 'Trimethylamine sensor based on semiconductive metal oxides for detection of fish freshness', *Sensors and Actuators: B. Chemical*, 1(1–6), pp. 108–112. doi: 10.1016/0925-4005(90)80182-Y.

Emslie, A. G., Bonner, F. T. and Peck, L. G. (1958) 'Flow of a viscous liquid on a rotating disk', *Journal of Applied Physics*, 29(5), pp. 858–862. doi: 10.1063/1.1723300.

Fan, X. and Du, B. (2011) 'Selective detection of trace 1-butanol by QCM sensor coated with copolymer P(HEMA-co-MA)', *Sensors and Actuators, B: Chemical*, 160(1), pp. 724–729. doi: 10.1016/j.snb.2011.08.055.

Fan, X. and Du, B. (2012) 'Selective detection of trace p-xylene by polymer-coated QCM sensors', *Sensors and Actuators, B: Chemical*, 166–167, pp. 753–760. doi: 10.1016/j.snb.2012.03.060.

Fauzi, F. *et al.* (2021) 'Gas and humidity sensing with quartz crystal microbalance (QCM) coated with graphene-based materials – A mini review', *Sensors and Actuators, A: Physical*, 330, p. 112837. doi: 10.1016/j.sna.2021.112837.

Feldman, D. and Barbalata, A. (1995) *Synthetic Polymers: Technology, Properties, Applications*. Canada: Chapman & Hall.

Flack, W. W. *et al.* (1984) 'A mathematical model for spin coating of polymer resists', *Journal of Applied Physics*, 56(4), pp. 1199–1206. doi: 10.1063/1.334049.

Gore, J. C. *et al.* (2004) 'Water solutions of boric acid and sugar for management of German cockroach populations in livestock production systems', *Journal of Economic Entomology*, 97(2), pp. 715–720. doi: 10.1093/jee/97.2.715.

Goswami, A. (National C. L. P. (1996) *Thin Film Fundamentals*. 1st edn. New Delhi: New Age International (P) Ltd., Publishers. Available at: <https://books.google.co.id/books?id=K0e->

8Nh9zSYC&printsec=frontcover&source=gbs_vpt_buy#v=onepage&q&f=true.

Greim, H. *et al.* (1998) 'Toxicity of aliphatic amines: structure-activity relationship.', *Chemosphere*, 36(2), pp. 271–95. doi: 10.1016/s0045-6535(97)00365-2.

Guilbault, G. G. and Jordan, J. M. (1988) 'Analytical uses of piezoelectric crystals: A review', *C R C Critical Reviews in Analytical Chemistry*, 19(1), pp. 1–28. doi: 10.1080/10408348808542806.

Hamilton, R. A. and Wolf, B. C. (2007) 'Accidental boric acid poisoning following the ingestion of household pesticide', *Journal of Forensic Sciences*, 52(3), pp. 706–708. doi: 10.1111/j.1556-4029.2007.00420.x.

Hamou, K. Ben *et al.* (2018) 'Impact of TEMPO-oxidization strength on the properties of cellulose nanofibril reinforced polyvinyl acetate nanocomposites', *Carbohydrate Polymers*, 181(August 2017), pp. 1061–1070. doi: 10.1016/j.carbpol.2017.11.043.

Hauchecorne, D. *et al.* (2010) 'The C-Cl...N halogen bond, the weaker relative of the C-I and C-Br...N halogen bonds, finally characterized in solution', *Chemical Physics*, 374(1–3), pp. 30–36. doi: 10.1016/j.chemphys.2010.06.004.

Hillier, A. C. and Ward, M. D. (1992) 'Scanning electrochemical mass sensitivity mapping of the quartz crystal microbalance in liquid media', *Anal. Chem*, 64(1), pp. 2539–2554. doi: <https://doi.org/10.1021/ac00045a014>.

Huang, X. *et al.* (2019) 'Assessing the Mass Sensitivity for Different Electrode Materials Commonly Used in Quartz Crystal Microbalances (QCMs)', *Sensors (Switzerland)*, 19(1), pp. 1–7. doi: 10.3390/s19183968.

Israelachvili, J. N. and Tabor, D. (1973) *Van der Waals Forces: Theory and Experiment, Progress in Surface and Membrane Science*. ACADEMIC PRESS, INC. doi: 10.1016/b978-0-12-571807-3.50006-5.

Ito, T. *et al.* (2017) 'ZnO Nanostructure Based QCM Sensor to Detect Ethanol at Room Temperature Fabricated by All Wet Process', *Proceedings*, 1(10), p. 397. doi: 10.3390/proceedings1040397.

Kaboorani, A., Riedl, B. and Blanchet, P. (2013) 'Ultrasonication technique: A method for dispersing nanoclay in wood adhesives', *Journal of Nanomaterials*, 2013(1). doi: 10.1155/2013/341897.

Larson, R. G. and Rehg, T. J. (1997) 'Spin Coating', in Kistler, S. F. and Schweizer, P. M. (eds) *Liquid Film Coating*. Dordrecht: Springer Netherlands, pp. 709–734. doi: 10.1007/978-94-011-5342-3_20.

Li, G. *et al.* (2007) 'Development of QCM trimethylamine sensor based on water soluble polyaniline', *Sensors*, 7(10), pp. 2378–2388. doi: 10.3390/s7102378.

Li, Y. *et al.* (2009) 'Well-defined amphiphilic graft copolymer consisting of hydrophilic poly(acrylic acid) backbone and hydrophobic poly(vinyl acetate) side

chains', *Journal of Polymer Science Part A: Polymer Chemistry*, 47(22), pp. 6032–6043. doi: 10.1002/pola.23646.

Lu, C., Czanderna, A. W. and Townshend, A. (1987) 'Applications of piezoelectric quartz crystal microbalances', *Analytica Chimica Acta*. Latest Edi, 199, p. 279. doi: 10.1016/S0003-2670(00)82840-8.

Merck (2017) 'Lembaran Data Keselamatan Bahan Trimethylamine', *Merck*, pp. 1–10. Available at: https://www.merckmillipore.com/ID/id/product/msds/MDA_CHEM-100201?ReferrerURL=https%3A%2F%2Fwww.google.com%2F.

Mitsubayashi, K. *et al.* (2004) 'Trimethylamine biosensor with flavin-containing monooxygenase type 3 (FMO3) for fish-freshness analysis', *Sensors and Actuators, B: Chemical*, 103(1–2), pp. 463–467. doi: 10.1016/j.snb.2004.05.006.

Mondal, S. and Banthia, A. K. (2005) 'Low-temperature synthetic route for boron carbide', *Journal of the European Ceramic Society*, 25(2-3 SPEC. ISS.), pp. 287–291. doi: 10.1016/j.jeurceramsoc.2004.08.011.

Pandey, I., Bairagi, P. K. and Verma, N. (2018) 'Electrochemically grown polymethylene blue nanofilm on copper-carbon nanofiber nanocomposite: An electrochemical sensor for creatinine', *Sensors and Actuators, B: Chemical*, 277(March), pp. 562–570. doi: 10.1016/j.snb.2018.09.036.

Pelliccione, M. and Lu, T. M. (2008) *Evolution of thin film morphology: Modeling and simulations*, *Springer Series in Materials Science*.

Prabhakar, P. K. *et al.* (2020) 'A comprehensive review on freshness of fish and assessment: Analytical methods and recent innovations', *Food Research International*, 133, p. 109157. doi: 10.1016/j.foodres.2020.109157.

Redelius, P. and Soenen, H. (2015) 'Relation between bitumen chemistry and performance', *Fuel*, 140, pp. 34–43. doi: 10.1016/j.fuel.2014.09.044.

Rezk, A. I. *et al.* (2018) 'Rational design of bone extracellular matrix mimicking tri-layered composite nanofibers for bone tissue regeneration', *Chemical Engineering Journal*, 350(March), pp. 812–823. doi: 10.1016/j.cej.2018.05.185.

Rianjanu, A. *et al.* (2019) 'Polyvinyl acetate film-based quartz crystal microbalance for the detection of benzene, toluene, and xylene vapors in air', *Chemosensors*, 7(2). doi: 10.3390/chemosensors7020020.

Rianjanu, A. *et al.* (2020) 'Electrospun polyvinyl acetate nanofiber modified quartz crystal microbalance for detection of primary alcohol vapor', *Sensors and Actuators, A: Physical*, 301, p. 111742. doi: 10.1016/j.sna.2019.111742.

Rianjanu, A. *et al.* (2021) 'Room-temperature ppb-level trimethylamine gas sensors functionalized with citric acid-doped polyvinyl acetate nanofibrous mats', *Materials Advances*, 2(11), pp. 3705–3714. doi: 10.1039/d1ma00152c.

Rodahl, M. and Kasemo, B. (1996) 'Frequency and dissipation-factor responses to

localized liquid deposits on a QCM electrode', *Sensors and Actuators, B: Chemical*, 37(1–2), pp. 111–116. doi: 10.1016/S0925-4005(97)80077-9.

Roto, R., Rianjanu, A., Fatyadi, I. A., *et al.* (2020) 'Enhanced sensitivity and selectivity of ammonia sensing by QCM modified with boric acid-doped PVAc nanofiber', *Sensors and Actuators, A: Physical*, 304(February), p. 111902. doi: 10.1016/j.sna.2020.111902.

Roto, R., Rianjanu, A., Rahmawati, A., *et al.* (2020) 'Quartz Crystal Microbalances Functionalized with Citric Acid-Doped Polyvinyl Acetate Nanofibers for Ammonia Sensing', *ACS Applied Nano Materials*, 3(6), pp. 5687–5697. doi: 10.1021/acsanm.0c00896.

Schillinger, B. M. *et al.* (1982) 'Boric acid poisoning', *Journal of the American Academy of Dermatology*, 7(5), pp. 667–673. doi: 10.1016/S0190-9622(82)70149-5.

Schmidt, R. H., Mosbach, K. and Haupt, K. (2004) 'A simple method for spin-coating molecularly imprinted polymer films of controlled thickness and porosity', *Advanced Materials*, 16(8), pp. 719–722. doi: 10.1002/adma.200306374.

Türkoğlu, Ş. (2007) 'Genotoxicity of five food preservatives tested on root tips of *Allium cepa* L.', *Mutation Research - Genetic Toxicology and Environmental Mutagenesis*, 626(1–2), pp. 4–14. doi: 10.1016/j.mrgentox.2006.07.006.

Vig, J. R. and Ballato, A. (1998) 'Comments about the effects of nonuniform mass loading on a quartz crystal microbalance', *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, 45(5), pp. 1123–1124. doi: 10.1109/58.726433.

Woo, H. S. *et al.* (2012) 'Highly sensitive and selective trimethylamine sensor using one-dimensional ZnO-Cr₂O₃ hetero-nanostructures', *Nanotechnology*, 23(24). doi: 10.1088/0957-4484/23/24/245501.

Yang, T. *et al.* (2017) 'Ultrafast response and recovery trimethylamine sensor based on α -Fe₂O₃ snowflake-like hierarchical architectures', *Journal of Alloys and Compounds*, pp. 396–404. doi: 10.1016/j.jallcom.2017.05.227.

Zhang, C. and Vetelino, J. F. (2001) 'Bulk acoustic wave sensors for sensing measurand-induced electrical property changes in solutions', *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, 48(3), pp. 773–778. doi: 10.1109/58.920710.

Zhang, K. *et al.* (2017) 'Graphene oxide/chitosan nanocomposite coated quartz crystal microbalance sensor for detection of amine vapors', *Sensors and Actuators, B: Chemical*, 243, pp. 721–730. doi: 10.1016/j.snb.2016.12.063.

Zhang, W. H. and Zhang, W. De (2008) 'Fabrication of SnO₂-ZnO nanocomposite sensor for selective sensing of trimethylamine and the freshness of fishes', *Sensors and Actuators, B: Chemical*, 134(2), pp. 403–408. doi: 10.1016/j.snb.2008.05.015.

Zheng, J. *et al.* (2008) 'Polyaniline-TiO₂ nano-composite-based trimethylamine QCM sensor and its thermal behavior studies', *Sensors and Actuators, B: Chemical*, 133(2), pp. 374–380. doi: 10.1016/j.snb.2008.02.037.