DAFTAR PUSTAKA

Adzkia, A., 2015, *Alat Deteksi Narkoba di Lapas Kalah dengan Milik Bandar*, *CNN Indonesia*. https://www.cnnindonesia.com/nasional/20150410131439-12-45690/alat-deteksi-narkoba-di-lapas-kalah-dengan-milik-bandar, diakses 21 Mei 2018.

Armbruster, D. A. dan Pry, T., 2008, Limit of blank, limit of detection and limit of quantitation., *The Clinical biochemist. Reviews / Australian Association of Clinical Biochemists*, 29, August, S49-52.

Benedetti, M. S., Malnoë, A. dan Broillet, A. L., 1977, Absorption, metabolism and excretion of safrole in the rat and man, *Toxicology*, 7, 1, 69–83.

Brydson, J. A., 1999, *Poly(vinyl acetate) and its Derivatives*, *Plastics Materials*, Elsevier, New York.

Buttry, D. A. dan Ward, M. D., 1992, Measurement of interfacial processes at electrode surfaces with the electrochemical quartz crystal microbalance, *Chemical Reviews*, 92, 6, 1355–1379.

Cerda, R., 2008, Pierce-gate crystal oscillator, an introduction, *Crystek Corporation*, March, 1–3.

Cernosek, R. W., Martin, S. J., Robert Hilhnan, A. dan Bandey, H. L., 1998, Comparison of lumped-element and transmission-line models for thickness-shear-mode quartz resonator sensors, *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, 45, 5, 1399–1407.

Chang, S. M., Muramatsu, H., Nakamura, C. dan Miyake, J., 2000, Principle and applications of piezoelectric crystal sensors, *Materials Science and Engineering C*, 12, 1, 111–123.

Cheng, C. I., Chang, Y.-P. dan Chu, Y.-H., 2012, Biomolecular interactions and tools for their recognition: focus on the quartz crystal microbalance and its diverse surface chemistries and applications, *Chem. Soc. Rev.*, 41, 5, 1947–1971.

Clarke, S., 2008, *Essential Chemistry for Aromatherapy Second (2nd) Edition*, *Social Science*, Elsevier Limited.

Comini, E., Faglia, G. dan Sberveglieri, G., 2009, *Solid State Gas Sensing*, *Springer Science*, (diedit oleh E. Comini;, G. Faglia;, dan G. Sberveglieri;), Springer Science, New York.

Czanderna, A. W. dan Lu, C., 1984, *Applications of Piezoelectric Quartz Crystal Microbalances*, Elsevier, New York.

Ding, X., Chen, X., Chen, X., Zhao, X. dan Li, N., 2018, A QCM humidity sensor based on fullerene/graphene oxide nanocomposites with high quality

factor, *Sensors and Actuators, B: Chemical*, Elsevier B.V., 266, , 534–542.

Dognini, J., Meneghetti, E. K., Teske, M. N., Begnini, I. M., Rebelo, R. A., Dalmarco, E. M., Verdi, M. dan De Gasper, A. L., 2012, Antibacterial activity of high safrole contain essential oils from Piper xylosteoides (Kunth) Steudel, *Journal of Essential Oil Research*, 24, 3, 241–244.

Dong, Y. dan Feng, G., 1995, Effects of surface physical sorption on characteristic of coated quartz-crystal humidity sensor, *Sensors and Actuators: B. Chemical*, 24, 1–3, 62–64.

Duan, X., 2014, Lipid based sensing of organic vapours: a study combining AFM and QCM, *Disertasi*, Durham University, Durham.

Ekariyani, N. Y., 2017, Deteksi Uap Safrol Menggunakan Sensor Berbasis Quartz Crystal Microbalance (QCM) Berlapis Kitosan, *Tesis*, FMIPA UGM, Yogyakarta.

Erbil, Y. H., 2000, *Vinyl Acetate Emulsion Polymerization and Copolymerization*, CRC Press, Florida.

Fabbri, P. dan Messori, M., 2016, Surface Modification of Polymers: Chemical, Physical, and Biological Routes, in *Modification of Polymer Properties*, Elsevier Inc., New York.

Gad, S. C. dan Pham, T., 2014, Safrole, *Encyclopedia of Toxicology: Third Edition*, 4, 3, 205–207.

Gimeno, P., Besacier, F., Bottex, M., Dujourdy, L. dan Chaudron-Thozet, H., 2005, A study of impurities in intermediates and 3,4-methylenedioxymethamphetamine (MDMA) samples produced via reductive amination routes, *Forensic Science International*, 155, 2–3, 141–157.

Green, M., 1981, Lectures on gas-solid interactions, *Sensors and Actuators*, 1, C, 379–391.

Harruma, I., 2016, *Kalapas Ini Mengaku Kesulitan Deteksi Narkoba*, *Republika.co.id*. http://www.republika.co.id/berita/nasional/daerah/16/03/29/o4t4km361-kalapas-ini-mengaku-kesulitan-deteksi-narkoba, diakses 21 Mei 2018.

Hickey, M. J., 1948, Investigation of The Chemical Constituents of Brazilian Sassafras Oil, *The Research Laboratory of Fritzsche Brothers, Inc.*, 443–446.

Honeychurch, K., 2016, Review: The Application of Liquid Chromatography Electrochemical Detection for the Determination of Drugs of Abuse, *Separations*, 3, 4, 28.

Huang, R., Yi, P. dan Tang, Y., 2017, Probing the interactions of organic molecules, nanomaterials, and microbes with solid surfaces using quartz crystal

microbalances methodology, advantages, and limitations, *Environmental Science: Processes and Impacts*, Royal Society of Chemistry, 19, 6, 793–811.

Huang, W., Wang, X., Jia, Y., Li, X., Zhu, Z., Li, Y., Si, Y., Ding, B., Wang, X. dan Yu, J., 2013, Highly sensitive formaldehyde sensors based on polyvinylamine modified polyacrylonitrile nanofibers, *RSC Advances*, 3, 45, 22994.

Huang, X., Bai, Q., Hu, J. dan Hou, D., 2017, A practical model of quartz crystal microbalance in actual applications, *Sensors (Switzerland)*, 17, 8, 1–9.

Johannsmann, D., 2015, *The Quartz Crystal Microbalance in Soft Matter Research*, Springer International Publishing, Switzerland.

Ju, J. F., Syu, M. J., Teng, H. S., Chou, S. K. dan Chang, Y. S., 2008, Preparation and identification of β-cyclodextrin polymer thin film for quartz crystal microbalance sensing of benzene, toluene, and p-xylene, *Sensors and Actuators, B: Chemical*, 132, 1, 319–326.

Kalantar-Zadeh, K., 2013, Sensors: An introductory course, in *Sensors: An Introductory Course*, Springer, 1–196.

Kamdem, D. dan Gage, D., 1995, Chemical Composition of Essential Oil from the Root Bark of Sassafras albidum, *Planta Medica*, 61, 06, 574–575.

Kasap, S. dan Capper, P., 2017, *Springer Handbook of Electronic and Photonic Materials*, Springer, Cham.

Kharisma, D. B., 2013, Kendala-Kendala Penyidik dalam Melaksanakan Pembelian Terselubung (Undercover Buy) Terkait Pengungkapan Tindak Pidana Narkotika (Study di Polres Malang Kota), *Skripsi*, Universitas Brawijaya, Malang.

Korotcenkov, G., 2014, *Handbook of Gas Sensor Materials*, (diedit oleh R. A. Potyrailo), Springer, New York.

Lam, C. S., Wang, Y. J. C. dan Wang, S. M., 2004, A Review of the Recent Development of Temperature Stable Cuts of Quartz for SAW Applications, *Ultrasonics*, 1, 1, 1–7.

Ledgard, J., 2010, *Kings Chem Guide*, 2nd Ed, UVKCHEM, Inc., Washington.

Li, Y. dan Ren, S., 2011, *Building Decorative Materials*, Science Press, Beijing.

Lin, T. dan Wang, X., 2013, *Needleless Electrospinning of Nanofibrous Technology and Applications*, CRC Press, Boca Raton.

Liu, X., Cheng, S., Liu, H., Hu, S., Zhang, D. dan Ning, H., 2012, A survey on gas sensing technology, *Sensors (Switzerland)*, 12, 7, 9635–9665.

Macagnano, A., Zampetti, E. dan Kny, E., 2015, *Electrospinning for High*

Performance Sensors, Springer International Publishing, Switzerland.

Maia, J. G., Green, C. L. dan Milchard, M. J., 1992, New sources of natural safrole, *Perfumer and Flavorist*, 18, April, 19–20,22.

Malvino, A. dan Bates, D., 2016, *Electronic Principles*, McGraw-Hill Education, New York.

Martin, S. J., Granstaff, V. E. dan Frye, G. C., 1991, Characterization of a Quartz Crystal Microbalance with Simultaneous Mass and Liquid Loading, 2281, 26, 2272–2281.

Massen, C. H. dan van Beckum, H. J. (ed.), 1970, *Vacuum Microbalance Techniques*, Springer New York, Boston, MA.

Morris, A. S., 2001, Measurement and Instrumentation Principles, *Measurement Science and Technology*, 12, 10, 1743–1744.

Mueller, R. M. dan White, W., 1968, Direct gravimetric calibration of a quartz crystal microbalance, *Review of Scientific Instruments*, 39, 3, 291–295.

Mueller, R. M. dan White, W., 1969, Areal Densities of Stress Producing Films Measured by Quartz Crystal Microbalance, *Review of Scientific Instruments*, 40, 12, 26–28.

National Center for Biotechnology Information, 2015, *PubChem Compound Database CID=7904*. https://pubchem.ncbi.nlm.nih.gov/compound/7904, diakses 22 Mei 2018.

National Center for Biotechnology Information, 2018, *PubChem Compound Database CID=5144*. https://pubchem.ncbi.nlm.nih.gov/compound/5144, diakses 22 Mei 2018.

O'Sullivan, C. K. dan Guilbault, G. G., 1999, Commercial quartz crystal microbalances - Theory and applications, *Biosensors and Bioelectronics*, 14, 8–9, 663–670.

Park, J. Y., Lee, I. H. dan Bea, G. N., 2008, Optimization of the electrospinning conditions for preparation of nanofibers from polyvinylacetate (PVAc) in ethanol solvent, *Journal of Industrial and Engineering Chemistry*, 14, 6, 707–713.

Pemerintah Republik Indonesia, 2010, *PP No. 44 Tahun 2010 Tentang Prekursor*, Indonesia.

Perkin, W. H., Jun, Martin, V. dan Trikojus, 1925, A Synthesis of Safrole and 0-Safrole, *Royal Society of Chemistry*, Iv, 162–163.

Prakash, S. dan Yeom, J., 2014, Advanced Fabrication Methods and Techniques, in *Nanofluidics and Microfluidics*, Elsevier Inc., New York.

Psycho Chemist, 2005, *Synthesis of Safrole*.

https://www.erowid.org/archive/rhodium/chemistry/safrole.html, diakses 20 Mei 2018.

Pusat Data dan Informasi Kemenkes RI, 2017, *Infodatin Pusat Data dan Informasi Kementrian Kesehatan 2017: Anti Narkoba Sedunia*, Jakarta Selatan.

Ravel, S., 2017, *BNN Akui Sulit Deteksi Sabu Cair di Air Mineral*, *Kompas.com*. https://megapolitan.kompas.com/read/2017/12/18/18363471/bnn-akui-sulit-deteksi-sabu-cair-di-air-mineral, diakses 20 Mei 2018.

Rianjanu, A., Roto, R., Julian, T., Hidayat, S. N., Kusumaatmaja, A., Suyono, E. A. dan Triyana, K., 2018, Polyacrylonitrile nanofiber-based quartz crystal microbalance for sensitive detection of safrole, *Sensors (Switzerland)*, 18, 4, 1–11.

Rianjanu, A., Nurbaiti, N., Hasanah, S. A., Kusumaatmaja, A., Roto, R. dan Triyana, K., 2018, Sensitive safrole sensing by quartz crystal microbalance modified with polyacrylonitrile nanofibers overcoated with chitosan, *Submitted to Royal Society of Chemistry*, x, x, 1–3.

Riowirawan, 2017, Pengembangan Sensor Uap Amoniak dengan Quartz Crystal Microbalances (QCM) Berlapis Chitosan, *Tesis*, FMIPA UGM, Yogyakarta.

Roto, R., 1998, Electron and Ion Transport in Redox Active Transition Metals Layered Double Hydroxides, *Disertasi*, The University of New Brunswick, Canada.

Saito, K., Saito, R., Kikuchi, Y., Iwasaki, Y., Ito, R. dan Nakazawa, H., 2011, Analysis of drugs of abuse in biological specimens, *Journal of Health Science*, 57, 6, 472–487.

Saputri, F. A., Mutakin, M., Lestari, K. dan Levita, J., 2014, Determination of Safrole in Ethanol Extract of Nutmeg (Myristica fragrans Houtt) Using Reversed-Phase High Performance Liquid Chromatography, *International Journal of Chemistry*, 6, 3.

Sauerbrey, G., 1959, Verwendung von Schwingquarzen zur Wagungdiinner Schichten und zur Mikrowagung, *Zeitschrift fur Physik*, 155, 2, 206–222.

Shrivastava, A. dan Gupta, V., 2011, Methods for the determination of limit of detection and limit of quantitation of the analytical methods, *Chronicles of Young Scientists*, 2, 1, 21.

Silberberg, M. S., 2012, *Principles of General Chemistry*, McGraw-Hill, New York.

Sohilait, H. J. dan Kainama, H., 2016, Synthesis of 1- (3 , 4-Methylenedioxyphenyl) -1-Butene-3- One From Safrole, *European Journal of Pure and Applied Chemistry*, 3, 1, 66–70.

Srivastava, A. K. dan Sakthivel, P., 2001, Quartz-crystal microbalance study for

characterizing atomic oxygen in plasma ash tools, *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 19, 1, 97–100.

Stoker, H. S., 2010, *General, Organic, and Biological Chemistry, Fifth Edition*, Brooks/Cole, Cengage Learning, Belmont.

The European Parliament and of the Council, 2004, *Regulation (EC) No 273/2004 of 11 February 2004 on Drug Precursors*, *The Official Journal of The European Communities*, European.

The European Parliament and of the Council, 2008, *Regulation (EC) No 1272 / 2008 on classification , labelling and packaging of substances and mixtures*, European.

Tyona, M. D., 2013, A theorical Study on spin coating technique, *Adv. Mater. Res.*, 2, 4, 195–208.

Uchino, K., 2017, *Advanced Piezoelectric Materials Science and Technology Second Edition*, Second Edi, (diedit oleh K. Uchino), Woodhead Publishing, Cambridge.

Veerabhadraiah, A., Ramakrishna, S., Angadi, G., Venkatram, M., Kanivebagilu Ananthapadmanabha, V., Hebbale NarayanaRao, N. M. dan Munishamaiah, K., 2017, Development of polyvinyl acetate thin films by electrospinning for sensor applications, *Applied Nanoscience*, Springer Berlin Heidelberg, 7, 7, 355–363.

Vig, J. R., 1992, *Introduction to Quartz Frequency Standards*, Fort Monmouth: Army Research Laboratory.

Wang, X., Ding, B., Sun, M., Yu, J. dan Sun, G., 2010, Nanofibrous polyethyleneimine membranes as sensitive coatings for quartz crystal microbalance-based formaldehyde sensors, *Sensors and Actuators, B: Chemical*, 144, 1, 11–17.

Wang, Z., Ma, J. dan Wang, P., 2011, Optimization of membrane structure using the spin-coating method, *Desalination and Water Treatment*, 34, 1–3, 197–203.

Zhang, D., Wang, D., Zong, X., Dong, G. dan Zhang, Y., 2018, High-performance QCM humidity sensor based on graphene oxide/tin oxide/polyaniline ternary nanocomposite prepared by in-situ oxidative polymerization method, *Sensors and Actuators, B: Chemical*, Elsevier B.V., 262, , 531–541.