

DAFTAR PUSTAKA

- Ahmad, S., 2020, *Sistem Citra Fotoakustik Real-Time Berbasis Laser Dioda*. Jurusan Fisika FMIPA UGM, Yogyakarta.
- Albagli, D., Dark, M., von Rosenberg, C., Perelman, L., Itzkan, I., and Feld, M., 1994, Laser-induced Thermoelastic Deformation: A Three Dimensional Solution and Its Application to The Ablation of Biological Tissue. *Med. Phys*: 1323-1331.
- Almutairi, Ahmed H., 2016, Laser Diode and Applications. *International Journal of Recent Technology and Engineering* 5 (4): 32–41.
- Bayrakli, Ismail, and Erdogan, Y.K, 2018, Photo-Acoustic Sensor Based on an Inexpensive Piezoelectric Film Transducer and an Amplitude-Stabilized Single-Mode External Cavity Diode Laser for in Vitro Measurements of Glucose Concentration. *Optics and Laser Technology* 102: 180–83.
- Beard PC., 2002, Photoacoustic imaging of blood vessel equivalent phantoms. *Proceedings of SPIE*; 4618:54–62.
- Bell, A.G., 1880, Selenium and the photophone. *Nature* 22:500–3.
- Bore, G. and Peus, S., 1999, *Microphones: Methods of Operation and Type Examples*. 4 ed. Berlin: Druck-Centrum Fürst GmbH.
- Bosch, L.I, T.M Fyles, and James, T., 2004, Binary and ternary phenylboronic acid complexes with saccharides and Lewis bases. *Tetrahedron*. 60 (49): 11175–11190.
- Brigham, E.O., 1974, *The Fast Fourier Transform*. New Jersey: Prentice Hall.
- Brigham, E.O., 1988, *The Fast Fourier Transform and Its Applications*. New Jersey: Prentice Hall.
- Chen, H., Zhou, N., Huang, X., and Song, S., 2016, Comparison of morbidity after reconstruction of tongue defects with an anterolateral thigh cutaneous flap compared with a radial forearm free-flap: a meta- analysis. *British Journal of Oral and Maxillofacial Surgery. British Association of Oral and Maxillofacial Surgeons* 54(10): 1095–1101.
- Chen, H., Yuan, Z., and Wu, C., 2015, Nanoparticle Probes for Structural and Functional Photoacoustic Molecular Tomography. *Biomed Res* 1: 1–11.

- Chen, Y.Y, and Chang, R.S, 2015, A Study of New Pulse Auscultation System. *Sensors* 2015, 15, 8712-8731.
- Coldren, L.A., Corzine, S.W., and Ma'Sanovi'C, M.L., 2012, *Diode Lasers and Photonic Integrated Circuits*. 2nd ed. New Jersey: John Wiley & Sons.
- Cox, B., and P.C Beard, 2017, Modeling photoacoustic propagation in tissue using k-space techniques. in *Photoacoustic Imaging and Spectroscopy*: CRC Press :25-34.
- Dasa, M.K., Markos, C., Janting, J., and Bang, O., 2019, Multispectral Photoacoustic Sensing for Accurate Glucose Monitoring Using a Supercontinuum Laser. *Journal of the Optical Society of America B* 36 (2): A61.
- Devlin, T.M., 2006, *Textbook of biochemistry with clinical correlations*. 6th edition. New York: Wiley-Liss.
- Domb, A.J., Kost, J., Sheva, B., and Wiseman, D., 1997, *Handbook of Biodegradable Polymers*. Boca Raton: CRC Press.
- El-Sharkawy, Y.H., 2009, Physical and thermal properties of human teeth determined by photomechanical, photothermal images to rapidly diagnose. *Diagnostics and Sensing IX. Proceedings of the SPIE* 71860K.
- El-sharkawy, Y.H., 2016, Optical Properties of Non-Malignant and Malignant Breast Tissue Determined by Surface Displacement of Laser-Induced Photoacoustic Generation. *International Journal of Optics and Photonic Engineering* 1 (1).
- El-sharkawy, Y.H., and Sherif, A.E, 2011, Optics & Laser Technology Photoacoustic Diagnosis of Human Teeth Using Interferometric Detection Scheme. *Optics and Laser Technology* 44 (5): 1501–6.
- Ganji, B.A., and Majlis, B.Y., 2004, Condenser Microphone Performance Simulation Using Equivalent Circuit Method. In *2004 IEEE International Conference on Semiconductor Electronics*.
- Griffiths, D. J., 1999, *Introduction to Electrodynamics*. 3 ed. Prentice-Hall, Inc., New Jersey.
- Grzegorzcyk, Pogorzelski M.S., Rochowski, P., Pogorzelski, S., and Rochowski, P., 2022, Towards a Novel Class of Photoacoustics-Based Water Contamination

- Sensors. *Journal of Environmental Chemical Engineering* 10 (3).
- Gusev, V.E., and Karabutov, A.A., 1993, *Laser optoacoustics*. New York: AIP.
- Hariri, A., Bely, N., Avanaki, M., Fatima, A., Mohammadian, N, Mahmoodkalayeh, S., and Ansari, M., 2017, Development of Low-cost Photoacoustic Imaging Systems Using Very Low-energy Pulsed Laser Diodes. *J. Biomed. Opt.* 22.
- Howard, R.M., 2002, *Principles of Random Signal Analysis and Low Noise Design*. New York: John Wiley & Sons.
- Jiang, H., 2015, *Photoacoustic Tomography*. Gainesville: Taylor & Francis.
- Kang, W. and Zhang, Z., 2020, Selective Production of Acetic Acid via Catalytic Fast Pyrolysis of Hexoses over Potassium Salts. *Catalysts*, 10: 502-515.
- Kemenkes RI, 2018, Hasil Riset Kesehatan Dasar Tahun 2018.
- Kim, C., Favazza, C., and Wang, L.V., 2010, Functional and Molecular Optical Imaging At New Depths. 110 (5): 2756–2782.
- Kruger, R.A. and Liu, P., 1994, Photoacoustic ultrasound: pulse production and detection in 0.5-percent liposyn. *Med. Phys* 21: 1179–1184.
- Lee, C., Kim, J., Zhang, Y., Jeon, M., Liu, C., Song, L., Lovell, J.F., and Kim, C., 2015, Dual-color photoacoustic lymph node imaging using nanoformulated naphthalocyanines. *Biomaterials* 73: 142–148.
- Mackenzie, H.A., Ashton, H.S., Spiers, S., Shen, Y., Freeborn, S.S., Hannigan, J., Lindberg, J., and Rae, P., 1999, Advances in Photoacoustic Noninvasive Glucose Testing. *Clin Chem* 45 (9): 1587–95.
- Miklós, A. and Hess, P., 2000, Peer Reviewed: Modulated and Pulsed Photoacoustics in Trace Gas Analysis. *Analytical Chemistry* 72(1): 30A-37 A.
- Mitrayana, Cynthia, D., Cahyani, N., and Satriawan, M., 2020, Photoacoustic Tomography System Based on Diode Laser to Imaging of Some Types of Materials. *Journal of Physics: Theories and Applications* 4 (2): 70–78.
- Montigny, E.D., 2011, Photoacoustic Tomography: Principles and Advances. *Department of Physics Engineering, Polytechnic School Montreal*. Canada.
- Muhammad, R. M., 2020, *Karakterisasi Sistem Citra Tomografi Fotoakustik Dan*

- Aplikasinya Untuk Klasifikasi Madu*. Jurusan Fisika FMIPA UGM, Yogyakarta.
- Murray, R.K., Granner, D.K., Mayes, P.A., and Rodwell, V.W., 2009, *Harper 's Illustrated Biochemistry*. 28th ed. McGraw-Hill.
- Nugraha, M.K., 2021, *Karakterisasi Kinerja Sistem Pencitraan Fotoakustik Berbasis Cahaya Tampak 450 nm untuk Pencitraan Phantom Bahan Kontras Pewarna Sintetik*. Jurusan Fisika FMIPA UGM, Yogyakarta.
- Oberst, U., 2007, The Fast Fourier Transform. *SIAM J. CONTROL OPTIM.* 0 (0): 1–45.
- Oraevsky, A.A, S.L Jacques, R.O Esenaliev, and F. K Tittel, 1994, Laser-based optoacoustic imaging in biological tissues. *Proc. SPIE* (2124A): 122–128.
- Pleitez, M.A, Lieblein, T., Bauer, A., von Lilienfeld-Toal, H., and Mänteles, W., 2012, In vivo noninvasive monitoring of glucose concentration in human epidermis by mid-infrared pulsed photoacoustic spectroscopy. *Anal. Chem.* 85:1013–1020.
- Pospiech, M. and Liu, S. 2004. *Laser Diodes*. University of Hannover.
- Press, W. H., Teukolsky, S.A., Vetterling, W.T., and Flannery, B.P., 1992, *Numerical Recipes in Fortran 77: The Art of Scientific Computing*. 2 ed. Cambridge: Cambridge University Press.
- Ricketti, B., 2015, Diode Laser Characteristics. Heriot Watt university, School of Engineering and Physical Sciences.
<https://www.researchgate.net/publication/273694203>.
- Ren, Z., Liu, G., Huang, Z., Zhao, D., and Xiong, Z., 2015, Exploration and practice in photoacoustic measurement for glucose concentration based on tunable pulsed laser induced ultrasound. *Int. J. Optomechatron* 9: 221–237.
- Rendy, W.B., 2022, *Karakterisasi Sistem Citra Tomografi Fotoakustik dan Aplikasinya untuk Deteksi Daging Ayam Berformalin*. Jurusan Fisika FMIPA UGM, Yogyakarta.
- Risakota, M.Y., 2014, Aplikasi Metode Spektroskopi Fotoakustik Laser Dalam Mendeteksi Gas Aseton Sebagai Biomarker Penyakit Diabetes Melitus. In *Seminar Nasional Basic Science VI FMIPA UNPATTI*.
- Rodriguez, Aguila, G., Duque, N.P., Sanchez, B.E., Gonzalez, O.O., Osorio, O.H.,

- Romero, C.J., Torres, M.A., and Cuautle, J.J., 2019, Sugar Concentration Measurement System Using Radiofrequency Sensor. *Sensors (Switzerland)* 19 (10).
- Scheeper, P.R., van der Donk, A.G.H., Olthuis, W., and Bergveld, P., 1994, A review of silicon microphones. *Sensors and Actuators A* 44: 1-11.
- Schenck, F.W., 2006, Glucose and Glucose-Containing Syrups. *Ullmann's Encyclopedia of Industrial Chemistry*.
- Shabairou, N., Lengenfelder, B., Hohmann, M., Klämpfl, F., Schmidt, M., and Zalevsky, Z., 2020, All-optical, an ultra-thin endoscopic photoacoustic sensor using multi-mode fiber. *Sci Rep*, 10, 9142.
- Shu, Z.Z., Ke, M.L., Chen, G.W., Hong, R.H., Chang, C.C., Tsai, J.Y., Lai, C.C., and Chen, J.L., 2008, Design And Fabrication of Condenser Microphone Using Wafer Transfer And Micro-Electroplating Technique. In *2008 Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS*: 9–13.
- Silalahi, H. M., 2017, *Sistem Citra Fotoakustik Sederhana Berbasis Laser Dioda dan Mikrofon Condenser*. Jurusan Fisika FMIPA UGM, Yogyakarta.
- Sim, J.Y., Ahn, C., Jeong, E., and Kim, B.K., 2016, Photoacoustic spectroscopy that uses a resonant characteristic of a microphone for in vitro measurements of glucose concentration. in: *38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*: 4861–4864.
- Stoica, P., and Moses, R., 2005, *Spectral Analysis of Signals*. New Jersey: Prentice Hall.
- Tuchin, V.V., 2009, *Handbook of Optical Sensing of Glucose in Biological Fluids and Tissues*. Taylor & Francis.
- USDA, 2021, Sugar : World Markets and Trade Sugar Production Up Globally in 2021 / 22. *Foreign Agricultural Services*., no. May: 1–8.
- Wang, L.V., 2009, *Photoacoustic Imaging and Spectroscopy*. Taylor & Francis.
- Whiting, D.R., Guariguata, L., Weil, C., and Shaw, J., 2011, IDF diabetes atlas: global estimates of the prevalence of diabetes for 2011 and 2030. *Diabetes Res. Clin. Pract.* 94: 311–321.
- World Health Organization, 2018, Guideline: Sugars Intake for Adults and Children.

World Health Organization.

Xu, M., and Wang, L.V., 2006, Photoacoustic Imaging in Biomedicine', *Rev Sci Instrum*, 77 (4): 1-22.

Zhang, R., 2020, *Photoacoustic Technique for Noninvasive Glucose Sensing : Principles and Implementations*. Nanyang Technological University, Singapore.

Zhong, H., Duan, T., Lan, H., Zhou, M., and Gao, F., 2018, Review of Low-Cost Photoacoustic Sensing and Imaging Based on Laser Diode and Light-Emitting Diode. *Sensors (Switzerland)* 18 (7): 20–22.