

DAFTAR PUSTAKA

- Amann, A., Miekisch, W., Pleil, J., Risby, T., Schubert, J. 2013. Chapter 7: Methodological *Issues* of Sample Collection and Analysis of Exhaled Breath. *Eur Respir Soc Monogr* 49: 96–114
- Bayrakli I, A. H. 2015. Breath analysis with Photoacoustic Spectrometer. *Global Journal on Technology* (Issue 7 (2015) 21-29), 1.
- Cao, W., Yuan, D. 2006. Breath Analysis: Potential for Clinical Diagnosis and Exposure Assessment. *Clinical Chemistry* 52, No. 5
- Dumitras, dkk. 2008. *Measurements of Ethylene Concentration by Laser Photoacoustic Techniques with Applications at Breath Analysis*. Romania: Romanian Report in Physics.
- Dumitras, DC. 2012. CO₂ Laser - Optimisation and Application. *InTech* .Croatia.
- Dowlaty, N., Yoon, A., Galassetti, P. 2013. Monitoring States of Altered Carbohydrate Metabolism Via Breath Analysis: Are Times Ripe for Transition from Potential to Reality? *Curr Opin Clin Nutr Metab Care*. Jul;16(4):466-72
- Freed, C., 1995, *CO₂ Isotope Lasers and Their Applications in Tunable Laser Spectroscopy*, Tunable Lasers Handbook, Academic Press
- Ghidurus, M. Turtoi, G. Boskou, P. Niculita, V. Stan, 2010, Nutritional and health aspects related to frying, *Romanian Biotechnological Letters*, Vol. 15, No. 6,
- Harren, F.J.M. 1988. The Photoacoustic Effect, Refined and Applied to Biological Problems. Ph.D. *Thesis*. Catholic University, Nijmegen The Netherlands.
- Harren, F.J.M, Cotti, G., Oomens, J.,and Hekkert, S.L. 2000. Photoacoustic Spectroscopy in Trace Gas Monitoring. *In Encyclopedia Of Appl. Phys Ed. RA. Meyers, JWS, Chicester*.
- Hibbard, T dan Killard, A. 2011. Breath amonia levels in a normal human population study as determined by photoacoustics laser spectroscopy. *Journa; of Breath Research*, 5 (3):1-18.
- Jelvani, S., Koushki A.M. 2012. Optimization of Gas Pressures Ratio in a FastAxial-Flow CO₂ Laser With Genetic Algorithm. *Optik* 123. 1421-1424.
- Ketaren, S. 1986. *Pengantar Teknologi Minyak dan Lemak Pangan*. Jakarta: Universitas Indonesia.
- Kreuzer, L.B. 1977. The Physics of Signal Generation and Detection. Pao, Y.H. Optoacoustic Spectroscopy and Detection. Academic Press, New York, P. 1-25.
- Mitrayana, Wasono, M.A.J., W.Rochmah. 2008. Kajian C₃H₆O dari Pernapasan sebagai Gas Biomarker Potensi Penyakit Diabetes Mellitus dengan Metode Spektroskopi Fotoakustik Laser, *Laporan Penelitian*, FMIPAUGM, Yogyakarta.
- Mitrayana, M. W. 2009. Deteksi Gas C₂H₄ Pernafasan sebagai Bio-marker Proses Lipid Peroksidasi dengan metode spektroskopi Fotoakustik LAsEr. *Prosiding Seminar Nasional Penelitian, Pendidikan dan Penerapan MIPA* (hal. F-153). Yogyakarta: FMIPA Universitas Negeri Yogyakarta.

- Mitrayana, W. M. 2010. Deteksi Dini Penyakit Dalam Dengan Metode Non-Invasive Spektroskopi Fotoakustik Laser. *Seminar Nasional VI SDM Teknologi Nuklir* (hal. 241-245). Yogyakarta: STTN-BATAN & Fak. Saintek UIN SUKA.
- Mitrayana, W.M. 2014. *Spektroskopi Fotoakustik Laser dan Aplikasinya*. Yogyakarta : FMIPA UGM Yogyakarta
- Navas, M.J., Jimenez, A.M., Asuero, A.G. 2012. Human Biomarkers in Breath by Photoacoustic Spectroscopy. *Clinica Chimica Acta*. 413 (2012) 1171–1178.
- Popa, C., M., 2011. Photoacoustic assessment of oxidative stress in dialysis and radiotherapy by LPAS system. *Optoelectronics and advanced materials-rapid communications* vol.5, No 11 (1237-1242)
- Pratama, A.K.Y, 2013. *Optimasi Daya Laser Pada Spektrometer Fotoakustik Laser CO₂ Konfigurasi Intrakavitas dan Aplikasinya dalam Mengukur Konsentrasi Gas Aseton pada Gas Hembus Napas Pasien Penderita Diabetes Mellitus Tipe 2*. Yogyakarta: Tesis. Universitas Gadjah Mada.
- Rahardjo. 2004. Oksidasi Lemak pada Makanan: Implikasinya pada Mutu Makanan dan Kesehatan. *Pidato Pengukuhan Jabatan Guru Besar*. Fakultas Teknologi Pertanian UGM.
- Riset Kesehatan Dasar. 2013. *Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan*.
- Rosencwaig, A. 1980. *Photoacoustic and Photoacoustic Spectroscopy*. vol. 57, Wiley and Sons, New York.
- Sagai, M., dan Ichinose, T.. 1980. Age Related in lipid peroxidation as measured by ethane, ethylene, butane and pentane in respired gases of rats. *Life Sciences*, 27:731-738.
- Sartika, R.A.D., 2009. *Pengaruh Suhu Dan Lama Proses Menggoreng (Deep Frying) Terhadap Pembentukan Asam Lemak Trans*. Makara, Sains, Vol. 13, No. 1, April 2009: 23-28
- Schwarz, dkk. 2009. Breath acetone—Aspects of normal physiology related to age and gender as determined in a PTR-MS study. *Journal Of Breath Research IOP PUBLISHING*, 1-9. doi:10.1088/1752-7155/3/2/027003
- Setiadi. 2007. *Anatomi dan Fisiologi Manusia*. Graha Ilmu : Yogyakarta
- Sihombing, Marice dan Sihombing, Geertruida. 1996. *The Quality of Fried Foods : Reviewed from the Plants Oil Absorber*. *Cermin dunia kedokteran*, (111)1996: 25-27
- Son'kin, V., Tamboutseva R, 2012, *Energy Metabolism in Children and Adolescents*. Institute for Depelopmental Physiology, Russian Academy of Education, Moscow (121-125).
- Solihat, Ihat. 2014. *Aplikasi Spektrometer Fotoakustik Laser Untuk Deteksi Gas Etilen Pada Gas Hembus Perokok dan Mantan Perokok*. *Thesis*. Universitas Gadjah Mada, Yogyakarta.
- Wijana, S. Arif, H dan Nur, H. 2005. *Teknologi Pangan : Mengolah Minyak Goreng Bekas*. Surabaya : Trubus Agrisarana.
- Wahyuningsih, Puji. 2010. *Deteksi Gas Etilen Akibat Jajanan Goreng dengan Spektrometer Fotoakustik*. Yogyakarta: FMIPA Universitas Gadjah Mada.



UNIVERSITAS
GADJAH MADA

**OPTIMASI DAYA LASER PADA SPEKTROMETER FOTOAKUSTIK LASER CO₂ KONFIGURASI
INTRAKAVITAS DAN APLIKASINYA
DALAM PENGUKURAN KONSENTRASI GAS ETILEN PADA GAS HEMBUS RELAWAN PEMAKAN
GORENGAN**

MAMILA ZIYYIT TUQO, Dr. Mitrayana

Universitas Gadjah Mada, 2015 | Diunduh dari <http://etd.repository.ugm.ac.id/>

Wang, Sahay. 2009. Breath Analysis Using Laser Spectroscopic Techniques: Breath Biomarkers, Spectral Fingerprints, and Detection Limits. *Sensors*(ISSN 1424-822), 8230-8262. doi:10.3390/s91008230