

DAFTAR PUSTAKA

- Abdi, H., 2003, Partial Least Square (PLS) Regression, Encyclopedia of Social Sciences Research Methods, Thousand Oaks.
- Adams, M. J., 1995, *Chemometrics in Analytical Spectroscopy*, Royal Society of Chemistry, Cambridge.
- Ahuja, S., dan Scypinski, S., 2001, Handbook of Modern Pharmaceutical Analysis, Volume 3, Academic Press, London.
- Alexopoulos, E. C., 2010, Introduction to multivariate regression analysis, *Hippokratia*, 14(1): 23-28.
- Anonim, 2011, *TQ Analyst Software User Guide*, Thermo Fisher Scientific, Madison.
- Arlin, J. B., Bhardwaj, R. M., Johnston, A., Miller, G. J., Bardin, J., MacDougall, F., Fernandes, P., Shankland, K., David, W. I., Florence, A. J., 2014, Structure and stability of two polymorphs of kreatin and its monohidrat, *Crystengcomm*, 16 (35): 1-8.
- Assi, S., Khan, I., Edwards, A., Osselton, D., Al-Obaidi, H., 2020, On-spot quantification of modafinil in generic medicines purchased from the internet using handheld fourier transform-infrared, near-infrared and raman spectroscopy, *Journal of Analytical Science and Techmology*, 11(35): 1-9.
- Bucchianico, A.D., 2008, Coefficient of Determinations (R²), Encyclopedia of Statistics in Quality and Reliability, John Wiley & Sons, Inc., New York.
- Burklen, T. S., Schlattner, U., Homayouni, R., Gough, K., Rak, M., Szeghalmi, A., Wallimann, T., 2006, the kreatin kinase/kreatin connection to alzheimer's disease: CK inactivation, APP-CK complexes, and focal kreatin deposits, *Journal of Biomedicine and Biotechnology*, 2006 (2): 1-11.
- Chan, C.C., Herman, L., Lee, Y.C. & Zhang, X.M., 2004, Analytical Method Validation and Instrument Performance Verification (Eds), 11-22, John Wiley & Sons, Inc., New Jersey.
- Che Man, Y.B., Syahariza, Z.A., Mirghani, M.E.S., Jinap, S., and Bakar J., 2005, Analysis of potential lard adulteration in chocolate and chocholate products using Fourier Transform Spectroscopy, *Food Chem.*, 90:815- 819.
- Choudhury, A., Renthlei, L., Dewan, M., Ahmed, R., Barakoti, H., Dey, B. K., 2019, Floating drug delivery system: an outlook, *Journal Of Applied Pharmaceutical Research*, 7(3): 1-8.
- Danzer, K., Otto, M., Currie, L.A., 2004, Guidelines for calibration in analytical chemistry part 2 multispecies calibration, IUPAC, *Pure Appl. Chem.*, 76 (6): 1215-1225.
- Dash, A.K., & Sawhney, A., 2002, A simple LC method with UV detection for the analysis of kreatin and creatinine and its application to several kreatin formulations, *Journal of Pharmaceutical and Biomedical Analysis*, 29(5): 939-945.
- Depkes RI., 2014. Farmakope Indonesia Edisi IV, Departemen Kesehatan Republik

Indonesia. Jakarta.

Depkes RI., 2020, Farmakope Indonesia Edisi VI, Departemen Kesehatan Republik Indonesia, Jakarta.

Dulinska, J., Setkowicz, Z., Janeczko, K., Sandt, C., Dumas, P., Uram, L., Gzielo, J. K., Chwiej, J., 2012, Synchrotron radiation Fourier-transform infrared and Raman microspectroscopy study showing an increased frequency of creatine inclusions in the rat hippocampal formation following pilocarpine-induced seizures, *Anal Bioanal Chem*, 402(7):2267-2274.

Faber, N. M., dan Rajk, R., 2007, How to avoid over-fitting in multivariate calibration—The conventional validation approach and an alternative, *Anal. Chim. Acta*, 595(1–2): 98–106.

Fanelli, S., Zimmermann, A., Totoli, E. G., Salgado, H. R. N., 2018, FTIR spectrophotometry as a green tool for quantitative analysis of drugs: practical application to amoxicillin, *Journal of Chemistry*, 2018: 1-8.

Gemperline, P., 2006, *Practical Guide to Chemometrics*, Taylor & Francis Group, New York.

Hidayah, T. & Sugiarto, 2013, Studi kasus konsumsi suplemen pada member *fitness center* di kota yogyakarta, *Jurnal Media Ilmu Keolahragaan Indonesia*, 3(1): 30-38.

International Conference of Harmonization, 1996, Validation of analytical methods: Methodology ICH Q2B.

Jager, R., Purpura, M., Shao, A., Inoue, T., Kreider, R. B., 2011, Analysis of the efficacy, safety, and regulatory status of novel forms of kreatin, *Amino Acids*, (40): 1369-1383.

Jeronimo, D. P., Souza, R. A., Silva, F. F., Camargo, G. L., Miranda, H. L., Xavier, M., Sakane, K.K., Ribeiro, W., 2012, Detection of kreatin in rat muscle by FTIR spectroscopy, *Annals of Biomedical Engineering*, (3): 1-9.

Ji, Y. & Deng, Y., 2011, In vitro evaluation of konjac glucomannan as novel excipients for floating systems, *Journal of Controlled Release*, (152): 1-132.

Johnson, R. A., & Wichern, D. W., 1996, Applied Multivariate Statistical Analysis 3th Edition, Prentice Hall of India Private Limited, New Jersey.

Kastyak, M. Z., Szczerbowska-Boruchowska, M., Adamek, D., Tomik, B., Lankosz, M., Gough, K. M., 2010, Pigmented creatine deposits in Amyotrophic Lateral Sclerosis central nervous system tissues identified by synchrotron Fourier Transform Infrared microspectroscopy and X-ray fluorescence spectromicroscopy, *Neuroscience*, 166(4):1119-1128.

Liang, H., Ye, T., Zhou, B., Li, J., He, L., Li, Y., Liu, S., Chen, Y., Li, B., 2015, Fabrication of gastric floating controlled release tablet based on konjac glucomannan, *Food Research International*, (72): 47-53.

Miller, J. N. & Miller, J. C., 2010, *Statistics and Chemometrics for Analytical Chemistry sixth edition*, Pearson Education Limited, England.

Naz, A., Tabish, I., Naseer, A., Siddiqi, A. Z., Siddiqui, F. A., Mirza, A. Z., 2021, Greed chemistry approach: method development and validation for



identification and quantification of entecavir using FT-IR in bulk and pharmaceutical dosage form, *Future Journal of Pharmaceutical Sciences*, 7 (75): 1-8.

National Center for Biotechnology Information, 2022, PubChem Compound Summary for CID 80116, Kreatin monohidrat, Retrieved October 24, 2022 from <https://pubchem.ncbi.nlm.nih.gov/compound/Kreatin-monohidrat>.

Neacsu, A., Gheorghe, D., Marinescu, C., Demeter, M., Tecuceanu, V., 2020, Thermochemical study of some e-beam irradiated guanidine derivatives compounds, *Revista de Chimie*, 71 (5): 506-521.

Ohannesian, L. & Streeter, A. J., 2002, *Handbook of Pharmaceutical Analysis*, Volume 117, Marcel Dekker Inc., New York.

Ostojic, S. M., 2021, Creatine as a food supplement for the general population, *Journal of Functional Foods*, 83: 1-7.

Otto, M., 2017, *Chemometrics: Statistic and Computer Application*, dalam *Analitical Chemistry 3nd Edition*, Wiley-VCH GmnH & Co., Weinhem.

Pavia, D. L., Lampman, G. M., & Kriz-jr, G. S., 2009, *Introduction to Spectroscopy: A Guide for Students of Organic Chemistry*, 4rd Edition, Thomson Learning Inc., London.

Persky, A.M., Hochhaus, G., Brazeau, G.A., 2003, Validation of a simple liquid chromatography assay for kreatin suitable for pharmacokinetic applications, determination of plasma protein binding and verification of percent labeled claim of various kreatin products, *J Chromatogr B Analyt Technol Biomed Life Sci*, 794(1): 157-165.

Petit, S., Madejova, J., 2013, Chapter 2.7 - Fourier transform infrared Spectroscopy, *Developments in Clay Science*, (5): 213-230.

Petit, T., Puskar, L., 2018, FTIR spectroscopy of nanodiamonds: methods and interpretation, *Diamond and Related Materials*, 89: 52-66.

Qin, C., Wu, M., Xu, S., Wang, X., Shi, W., Dong, Y., Yang, L., He, W., Han, X., Yin, L., 2018, Design and optimization of gastro-flooding sustained-release tablet of pregabalin: in vitro and in vivo evaluation, *International Journal of Pharmaceutics*, (4): 1-40.

Rohman, A., and Che Man, Y.B., 2011, Application of Fourier Transform Infrared (FT-IR) spectroscopy combined with chemometrics for authentication of cod-liver oil, *Vibr. Spectr.*, 55:141-145.

Rohman, A., 2014, *Spektroskopi Inframerah dan Kemometrika untuk Analisis Farmasi*, Pustaka Pelajar, Yogyakarta.

Shaha, S. H., Patel, J. K., Pundarikakshudu, K., Patel, N. V., 2009, An overview of a gastro-retentive floating drug delivery system, *Asian Journal of Pharmaceutical Sciences*, 4(1): 65-80.

Singh, S., Dash, A. K., 2009, Chapter 1: Kreatin Monohidrat: Profiles of Drug Substances, Excipients and Related Methodology, *Profiles of drug substances*, (34): 1-35.

Skujins, S., and Varian, A.G., 1986, Application of UV-Visible Derivative

Spectrophotometry, 1-30, CH 6300 Zug, Switzerland.

Smith, B. C., 2011, *Fundamentals of Fourier transform infrared Spectroscopy*, Second Edition, CRC Press Taylor & Francis Group, New York.

Stuart, B.H., 2004, Infrared Spectroscopy: Fundamentals and Applications, John Wiley & Sons Ltd, England.

Stepan, R., Cuhra, P., Barsova, S., 2008, Comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometric detection for the determination of anabolic steroids and related compounds in nutritional supplements, *Food Addit Contam Part A Chem Anal Control Expo Risk Assess*, 25(5): 557-65.

Terjung, R. L., Clarkson, P., Eichner, E. R., Green-haff, P. L., Hespel, P. J., Israel, R. G., Kraemer, W. J., Meyer, R. A., Spriet, L. L., Tarnopolsky, M. A., Wagenvelders, A. J. and Williams, M. H., 2000, American College of Sports Medicine roundtable. The physiological and effects oral creatine supplementation. *Med. Sci. Sports Exerc.* 32(3):706–717.

Tingyang, A., Shang, L., He, C., Teng, Y., Ren, C., Zhou, P., Wang, L., Li, J., Li, B., 2019, Development of multi-layered gastric floating tablets based in konjac glucomannan: a modified calcium supplement with enhanced bioavailability, *The Royal Society of Chemistry*, (9): 1-9.

Turner, C. E., Russell, B. R., Gant, N., 2015, Comparative quantification of dietary supplemented neural creatine concentrations with ^1H -MRS peak fitting and basis spectrum methods, *Magnetic Resonance Imaging*, 33(9): 1163-1167.

United Nations Development Programme, 2023, The SDGs in Action, [https://www.undp.org/sustainable-development-goals#:~:text=The%20Sustainable%20Development%20Goals%20\(SDGs\)%20also%20known%20as%20the,people%20enjoy%20peace%20and%20prosperity](https://www.undp.org/sustainable-development-goals#:~:text=The%20Sustainable%20Development%20Goals%20(SDGs)%20also%20known%20as%20the,people%20enjoy%20peace%20and%20prosperity), diakses 18 April 2023.

United States Pharmacopoeia, 2021, *USP 44 NF 39*, The United States Pharmacopoeia.

Wagner, S. D., Kaufer, S. W., & Sherma, J., 2006, Quantification of creatine in nutrition supplements by thin layer chromatography-densitometry with thermochemical activation of fluorescence quenching, *Journal of liquid Chromatography & Related Technologies*, 24(16): 2525-2530.

Wehrens, R., 2011, *Chemometrics with R: Multivariate Data Analysis in the Natural Sciences and Life Sciences*, Springer, New York.

Windarsih, A., Irawati, Rohman, A., 2020, The use of FTIR spectroscopy in combination with chemometrics for the authentication of milk fat from palm oil, IOP Conf. Ser.: Mater. Sci. Eng., 980 012025.

Withrow, J., 2016, *Infrared Spectroscopy*, Research World, New York.

Wookhuh, H. W. , Na, Y. G., Kang, H., Kim, M., Han, M., Pham, T. M. A., Lee, H., Baek, J., Lee, H., Cho, C., 2020, Novel self-floating tablet for enhanced oral bioavailability of metformin based on cellulose, *International Journal of Pharmaceutics*, (11): 1-8.

World Health Organization, 2007, *Pemastian Mutu Obat: Kompendium Pedoman dan*

Bahan-Bahan Terkait, Penerbit Buku Kedokteran EGC.

- Worley, B., Powers, R., 2013, Multivariate analysis in metabolomics. *Curr. Metabolomics.* 1: 92- 107 cit. Khotimah, K., Martono, S., Windarsih, A., Irnawati, Prihandiwati, E., Rohman, A., 2021, Application of FTIR spectroscopy combined with multivariate calibrations for analysis of chloramphenicol and hydrocortisone acetate in cream samples, *Indonesian Journal of Pharmacy*, 32(3): 408-415.
- Wyss, M., Braissant, O., Pischel, I., Salomons, G. S., Schulze, A., Stockler, S., Wallimann, T., 2007, Creatine and creatine kinase in health and disease--a bright future ahead?, *Subcell Biochem*, 46:309-34.
- Xiang, L.W., Li, J., Lin, J.M., Li, H.F., 2014, Determination of gouty arthritis' biomarkers in human urine using reversed-phase high-performance liquid chromatography, *J Pharm Anal*, 4(2):153-158.
- Xu, J. L., Thomas, k. V., Luo, Z., Gowen, A. A., 2019, FTIR and raman imaging for microplastics analysis: state of the art, challenges and prospects, *TrAC Trends in Analytical Chemistry*, 119: 1-11.
- Yokoyama, Y., Tsuji, S., Sato, H., 2005, Simultaneous determination of creatinine, kreatin, and UV-absorbing amino acids using dual-mode gradient low-capacity cation-exchange chromatography, *Journal of Chromatography A*, 1085 (1): 110-116.
- Zubedi, S. S., dan Mohammed, S., 2018, Floating tablets and its polymers, *Journal of Drug Delivery and Therapeutics*, 8 (5-s): 16-24.