

7. DAFTAR PUSTAKA

- (BPOM) Badan Pengawasan Obat dan Makanan. (2019). Laporan Tahunan 2019. BPOM. Jakarta.
https://www.pom.go.id/new/admin/dat/20200817/Laporan_Tahunan_2019_Badan_Pengawas_Obat_dan_Makanan.pdf
- (USDA) United state Departement of Agriculture. (2018). USDA National Nutrient database for Standart. <https://fdc.nal.usda.gov/fdc-app.html#/food-details/1102750/nutrients>. (10 Desember 2021).
- (USDA) United state Departement of Agriculture. (2018). USDA National Nutrient database for Standart. <https://fdc.nal.usda.gov/fdc-app.html#/food-details/1102749/nutrients>. (10 Desember 2021).
- (USDA) United state Departement of Agriculture. (2018). USDA National Nutrient database for Standart. <https://fdc.nal.usda.gov/fdc-app.html#/food-details/1102744/nutrients>. (10 Desember 2021).
- Adilla, F. (2021). Metode Analisis Senyawa Asam Benzoat dalam Produk Makanan dan Minuman. *Jurnal Dunia Farmasi*, 5(2), 63-73. <https://doi.org/10.33085/jdf.v5i2.4834>
- Ağçam, E., Akyıldız, A., & Dündar, B. (2018). Thermal pasteurization and microbial inactivation of fruit juices. In *Fruit juices* (pp. 309-339). Academic Press. <https://doi.org/10.1016/B978-0-12-802230-6.00017-5>
- Akash, M. S. H., & Rehman, K. (2019). Essentials of pharmaceutical analysis. In *Essentials of Pharmaceutical Analysis*. <https://doi.org/10.1007/978-981-15-1547-7>
- Alwi, I. (2015). Kriteria empirik dalam menentukan ukuran sampel pada pengujian hipotesis statistika dan analisis butir. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 2(2). <https://journal.lppmunindra.ac.id/index.php/Formatif/article/view/95>
- Aparicio-Ruiz, R., García-González, D. L., Morales, M. T., Lobo-Prieto, A., & Romero, I. (2018). Comparison of two analytical methods validated for the determination of volatil compounds in virgin olive oil: GC-FID vs GC-MS. *Talanta*, 187, 133–141. <https://doi.org/10.1016/j.talanta.2018.05.008>
- Asadpoor, M., Ansarin, M., & Nemati, M. (2014). Amino acid profile as a feasible tool for determination of the authenticity of fruit juices. *Advanced pharmaceutical bulletin*, 4(4), 359. <https://dx.doi.org/10.5681%2Fapb.2014.052>

- Ayza, A., & Belete, E. (2015). Food adulteration: its challenges and impacts. *Food Sci Qual Manag*, 41, 50-6. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.942.4763&rep=rep1&type=pdf>
- Bansal, S., Singh, A., Mangal, M., Mangal, A. K., & Kumar, S. (2017). Food adulteration: Sources, health risks, and detection methods. *Critical reviews in food science and nutrition*, 57(6), 1174-1189. <https://doi.org/10.1080/10408398.2014.967834>
- Cardellina II JH, Gafner S. (2021). Adulteration of pomegranate ingredients and products. Botanical Adulterants Prevention Bulletin. Austin, TX: ABC-AHP-NCNPR Botanical Adulterants Prevention Program. <https://www.stauberusa.com/wp-content/uploads/2021/09/ABC-2021-Pomegranate-adulteration-Bulletin.pdf>
- Costa, H. B., Souza, L. M., Soprani, L. C., Oliveira, B. G., Ogawa, E. M., Korres, A. M. N., Ventura, J. A., & Romão, W. (2015). Monitoring the physicochemical degradation of coconut water using ESI-FT-ICR MS. *Food Chemistry*, 174, 139–146. <https://doi.org/10.1016/j.foodchem.2014.10.154>
- Cozzolino, D. (2012). Recent trends on the use of infrared spectroscopy to trace and authenticate natural and agricultural food products. *Applied Spectroscopy Reviews*, 47(7), 518-530. <https://doi.org/10.1080/05704928.2012.667858>
- Dağdeviren, S., Altunay, N., Sayman, Y., & Gürkan, R. (2018). A new method of UA_CPE coupled with spectrophotometry for the faster and cost-effective detection of proline in fruit juice, honey, and wine. *Food Chemistry*, 255, 31–40. <https://doi.org/10.1016/j.foodchem.2018.02.046>
- Dalmia, A. (2017). Rapid Measurement of Food Adulteration with Minimal Sample Preparation and No Chromatography Using Ambient Ionization Mass Spectrometry. *Journal of AOAC International*, 100(2), 573-575. <https://doi.org/10.5740/jaoacint.16-0343>
- Dasenaki, M. E., & Thomaidis, N. S. (2019). Quality and authenticity control of fruit juices-A review. *Molecules*, 24(6), 1014. <https://doi.org/10.3390/molecules24061014>
- Derakhshan, Z., Ferrante, M., Tadi, M., Ansari, F., Heydari, A., Hosseini, M. S., Conti, G. O., & Sadrabad, E. K. (2018). Antioxidant activity and total phenolic content of ethanolic extract of pomegranate peels, juice and seeds. *Food and Chemical Toxicology*, 114(January), 108–111. <https://doi.org/10.1016/j.fct.2018.02.023>
- Dinas Kesehatan Kalimantan Barat. (2022, 25 Februari). 10 Buah untuk Booster Imun yang Bagus Buat Penderita Covid-19.

<https://dinkes.kalbarprov.go.id/10-buah-untuk-booster-imun-yang-bagus-buat-penderita-covid-19/>

Dołowy, M., & Pyka, A. (2014). Application of TLC, HPLC and GC methods to the study of amino acid and peptide enantiomers: a review. *Biomedical Chromatography*, 28(1), 84-101. <https://doi.org/10.1002/bmc.3016>

Dong, Y. lei, Yan, N., Li, X., Zhou, X. min, Zhou, L., Zhang, H. juan, & Chen, X. guo. (2012). Rapid and sensitive determination of hydroxyproline in dairy products using micellar electrokinetic chromatography with laser-induced fluorescence detection. *Journal of Chromatography A*, 1233, 156–160. <https://doi.org/10.1016/j.chroma.2012.02.030>

Dugheri, S., Marrubini, G., Mucci, N., Cappelli, G., Bonari, A., Pompilio, I., ... & Arcangeli, G. (2021). A review of micro-solid-phase extraction techniques and devices applied in sample pretreatment coupled with chromatographic analysis. *Acta Chromatographica*, 33(2), 99-111. <http://dx.doi.org/10.1556/1326.2020.00790>

Durazzo, A., Lucarini, M., Novellino, E., Daliu, P., & Santini, A. (2019). Fruit-based juices: Focus on antioxidant properties—Study approach and update. *Phytotherapy Research*, 33(7), 1754–1769. <https://doi.org/10.1002/ptr.6380>

Fahmy, H., Hegazi, N., El-Shamy, S., & Farag, M. A. (2020). Pomegranate juice as a functional food: A comprehensive review of its polyphenols, therapeutic merits, and recent patents. *Food and Function*, 11(7), 5768–5781. <https://doi.org/10.1039/d0fo01251c>

Fanali, C., Dugo, L., & Mondello, L. (2016). Advances in chromatographic techniques for food authenticity testing. In *Advances in Food Authenticity Testing*. Elsevier Ltd. <https://doi.org/10.1016/B978-0-08-100220-9.00010-2>

Farias, T. R., Alves Filho, E. G., Silva, L. M., De Brito, E. S., Rodrigues, S., & Fernandes, F. A. (2021). NMR evaluation of apple cubes and apple juice composition subjected to two cold plasma technologies. *LWT*, 150, 112062. <https://doi.org/10.1016/j.lwt.2021.112062>

Gardana, C., Ciappellano, S., Marinoni, L., Fachechi, C., & Simonetti, P. (2014). Bilberry adulteration: identification and chemical profiling of anthocyanins by different analytical methods. *Journal of agricultural and food chemistry*, 62(45), 10998-11004. <https://doi.org/10.1021/jf504078v>

Ghasemi, F., Alizadeh, M., Pirsa, S., & Mohtarami, F. (2019). Study of the physicochemical properties/gas chromatography profile of adulterated pomegranate juice by nano-composite-fiber. *Journal of Agricultural Science and Technology*, 21(6), 1447–1458. https://jast.modares.ac.ir/browse.php?a_id=14014&sid=23&slc_lang=fa

- Giuffrida, A., Maccarrone, G., Cucinotta, V., Orlandini, S., & Contino, A. (2014). Recent advances in chiral separation of amino acids using capillary electromigration techniques. *Journal of Chromatography A*, 1363, 41–50. <https://doi.org/10.1016/j.chroma.2014.08.041>
- Gosset-Erard, C., Zhao, M., Lordel-Madeleine, S., & Ennahar, S. (2021). Identification of punicalagin as the bioactive compound behind the antimicrobial activity of pomegranate (*Punica granatum L.*) peels. *Food Chemistry*, 352, 129396. <https://doi.org/10.1016/j.foodchem.2021.129396>
- Granato, D., Margraf, T., Brotzakis, I., Capuano, E., & van Ruth, S. M. (2015). Characterization of Conventional, Biodynamic, and Organic Purple Grape Juices by Chemical Markers, Antioxidant Capacity, and Instrumental Taste Profile. *Journal of Food Science*, 80(1), C55–C65. <https://doi.org/10.1111/1750-3841.12722>
- Handayani, I. R., Nurlina, & Zaharah, T. A. (2018). Penurunan Ion Ca (II) Dan Mg (II) Penyebab Kesadahan Oleh Komposit Kitosan-Zeolit Pelet Dan Beads. *Jurnal Kimia Khatulistiwa*, 7(3), 66–74. <https://jurnal.untan.ac.id/index.php/jkkmipa/article/view/26644>
- He, Y., Bai, X., Xiao, Q., Liu, F., Zhou, L., & Zhang, C. (2021). Detection of adulteration in food based on nondestructive analysis techniques: A review. *Critical reviews in food science and nutrition*, 61(14), 2351-2371. <https://doi.org/10.1080/10408398.2020.1777526>
- Holler, F. J., Crouch, S. R., Skoog, D. A. (2017). Principles of Instrumental Analysis. Austria: Cengage Learning. https://www.google.co.id/books/edition/Principles_of_Instrumental_Analysis/D13EDQAAQBAJ?hl=en&gbpv=0
- Jandrić, Z., Roberts, D., Rathor, M. N., Abraham, J. A., Islam, M., & Cannavan, A. (2014). Assessment of fruit juice authenticity using UPLC-QToF MS: A metabolomics approach. *Food Chemistry*, 148, 7–17. <https://doi.org/10.1016/j.foodchem.2013.10.014>
- Kesmen, Z., Yetiman, A. E., Şahin, F., & Yetim, H. (2012). Detection of Chicken and Turkey Meat in Meat Mixtures by Using Real-Time PCR Assays. *Journal of Food Science*, 77(2), 167–173. <https://doi.org/10.1111/j.1750-3841.2011.02536.x>
- Krueger, Dana A. (2012). Composition of Pomegranate Juice. *Journal of AOAC International*, 95(1), 163-168. <https://doi.org/10.5740/jaoacint.11-178>
- Kumari, L., Jaiswal, P., & Tripathy, S. S. (2021). Various techniques useful for determination of adulterants in valuable saffron: A review. *Trends in Food*

Science and Technology, 111(April 2020), 301–321.
<https://doi.org/10.1016/j.tifs.2021.02.061>

Legua, P., Melgarejo, P., Martínez, J. J., Martínez, R., & Hernández, F. (2012). Evaluation of Spanish pomegranate juices: organic acids, sugars, and anthocyanins. *International Journal of Food Properties*, 15(3), 481-494. <https://doi.org/10.1080/10942912.2010.491931>

Lestario, L. N. (2017). Antosianin: sifat kimia, perannya dalam kesehatan, dan prospeknya sebagai pewarna makanan. Indonesia: UGM Press. <https://books.google.com/books?hl=en&lr=&id=RfxUDwAAQBAJ&oi=fnd&pg=PR5&dq=Antosianin:+sifat+kimia,+perannya+dalam+kesehatan,+dan+prospeknya+sebagai+pewarna+makanan.+Indonesia&ots=cMVHzE10CN&sig=d1sU3kqvbKd14UZNLFkWYqDLegY>

Li, J., Zhang, C., Liu, H., Liu, J., & Jiao, Z. (2020). Profiles of Sugar and Organic Acid of Fruit Juices: A Comparative Study and Implication for Authentication. *Journal of Food Quality*, 2020. <https://doi.org/10.1155/2020/7236534>

Ma, X., & Ouyang, Z. (2016). Ambient ionization and miniature mass spectrometry system for chemical and biological analysis. *TrAC Trends in Analytical Chemistry*, 85, 10-19. <https://doi.org/10.1016/j.trac.2016.04.009>

Macheix, J. (2018). Fruit Phenolics. United Kingdom: CRC Press. Majchrzak, T., Wojnowski, W., Lubinska-Szczygiel, M., Różańska, A., Namieśnik, J., & Dymerski, T. (2018). PTR-MS and GC-MS as complementary techniques for analysis of volatils: A tutorial review. *Analytica Chimica Acta*, 1035, 1–13. <https://doi.org/10.1016/j.aca.2018.06.056>

Marieschi, M., Torelli, A., Beghé, D., & Bruni, R. (2016). *Authentication of Punica granatum L.: Development of SCAR markers for the detection of 10 fruits potentially used in economically motivated adulteration*. *Food Chemistry*, 202, 438–444. <https://doi.org/10.1016/j.foodchem.2016.02.011>

Meng, X., Zhai, Y., Yuan, W., Lv, Y., Lv, Q., Bai, H., ... & Ma, Q. (2020). Ambient ionization coupled with a miniature mass spectrometer for rapid identification of unauthorized adulterants in food. *Journal of Food Composition and Analysis*, 85, 103333. <https://doi.org/10.1016/j.jfca.2019.103333>

Moore, J. C., Spink, J., & Lipp, M. (2012). Development and application of a database of food ingredient fraud and economically motivated adulteration from 1980 to 2010. *Journal of food science*, 77(4), R118-R126. <https://doi.org/10.1111/j.1750-3841.2012.02657.x>

- Mukthazar. (2020). Prosedur Penelitian Pendidikan. Absolute Media. Yogyakarta.
https://www.google.co.id/books/edition/Prosedur_Penelitian_Pendidikan/iH_HwDwAAQBAJ?hl=en&gbpv=0
- Ngailo, E. K. (2020). Contributions to linear discriminant analysis with applications to growth curves. Sweden: Linköping University Electronic Press.
https://www.google.co.id/books/edition/Contributions_to_linear_discrimina_nt_ana/TKviDwAAQBAJ?hl=en&gbpv=1
- Nguyen, L., & Moini, M. (2016). Direct sample analysis-mass spectrometry vs separation mass spectrometry techniques for the analysis of writing inks. *Forensic Chemistry*, 1, 78-85.
<https://doi.org/10.1016/j.forec.2016.07.007>
- Nour, V., Trandafir, I., & Cosmulescu, S. (2013). HPLC determination of phenolic acids, flavonoids and juglone in walnut leaves. *Journal of Chromatographic Science*, 51(9), 883–890. <https://doi.org/10.1093/chromsci/bms180>
- Nuncio-Jáuregui, N., Calín-Sánchez, Á., Hernández, F., & Carbonell-Barrachina, Á. A. (2014). Pomegranate juice adulteration by addition of grape or peach juices. *Journal of the Science of Food and Agriculture*, 94(4), 646-655.
<https://doi.org/10.1002/jsfa.6300>
- Oliveira, B. G., Costa, H. B., Ventura, J. A., Kondratyuk, T. P., Barroso, M. E. S., Correia, R. M., Pimentel, E. F., Pinto, F. E., Endringer, D. C., & Romão, W. (2016). Chemical profile of mango (*Mangifera indica L.*) using electrospray ionisation mass spectrometry (ESI-MS). *Food Chemistry*, 204, 37–45.
<https://doi.org/10.1016/j.foodchem.2016.02.117>
- Oliveira, B. G., Tosato, F., Folli, G. S., de Leite, J. A., Ventura, J. A., Endringer, D. C., ... & Romao, W. (2019). Controlling the quality of grape juice adulterated by apple juice using ESI (-) FT-ICR mass spectrometry. *Microchemical Journal*, 149, 104033.
<https://doi.org/10.1016/j.microc.2019.104033>
- Packer, R. (2013). Pomegranate Juice Adulteration. Diakses pada 2 Januari 2022 dari <https://www.food-safety.com/articles/2514-pomegranate-juice-adulteration>
- Pala, Ç. U., & Toklucu, A. K. (2013). Effects of UV-C Light Processing on Some Quality Characteristics of Grape Juices. *Food and Bioprocess Technology*, 6(3), 719–725. <https://doi.org/10.1007/s11947-012-0808-7>
- Petzold, G., Moreno, J., Lastra, P., Rojas, K., & Orellana, P. (2015). Block freeze concentration assisted by centrifugation applied to blueberry and pineapple

- juices. *Innovative Food Science & Emerging Technologies*, 30, 192-197. <https://doi.org/10.1016/j.ifset.2015.03.007>
- Reque, P. M., Steffens, R. S., SILvA, A. M. D., Jablonski, A., FLÔRES, S. H., Rios, A. D. O., & Jong, E. V. D. (2014). Characterization of blueberry fruits (*Vaccinium* spp.) and derived products. *Food Science and Technology*, 34, 773-779. <https://doi.org/10.1590/1678-457X.6470>
- Ribeiro, C., Ribeiro, A. R., Maia, A. S., Gonçalves, V. M. F., & Tiritan, M. E. (2014). *New Trends in Sample Preparation Techniques for Environmental Analysis. Critical Reviews in Analytical Chemistry*, 44(2), 142–185. <https://doi.org/10.1080/10408347.2013.833850>
- Rocco, A., Aturki, Z., & Fanali, S. (2013). Chiral separations in food analysis. *TrAC - Trends in Analytical Chemistry*, 52, 206–225. <https://doi.org/10.1016/j.trac.2013.05.022>
- Ruiz-Matute, A. I., Rodríguez-Sánchez, S., Sanz, M. L., & Soria, A. C. (2018). Chromatographic Technique: Gas Chromatography (GC). In *Modern Techniques for Food Authentication*. <https://doi.org/10.1016/b978-0-12-814264-6.00012-8>
- Russo, M., Fanali, C., Tripodo, G., Dugo, P., Muleo, R., Dugo, L., ... & Mondello, L. (2018). Analysis of phenolic compounds in different parts of pomegranate (*Punica granatum*) fruit by HPLC-PDA-ESI/MS and evaluation of their antioxidant activity: application to different Italian varieties. *Analytical and bioanalytical chemistry*, 410(15), 3507-3520. <https://doi.org/10.1007/s00216-018-0854-8>
- Salem, M. A., Michel, H. E., Ezzat, M. I., Okba, M. M., EL-Desoky, A. M., Mohamed, S. O., & Ezzat, S. M. (2020). Optimization of an extraction solvent for angiotensin-converting enzyme inhibitors from hibiscus sabdariffa L. based on its UPLC-MS/MS metabolic profiling. *Molecules*, 25(10), 1–15. <https://doi.org/10.3390/molecules25102307>
- Salido-Fortuna, S., Castro-Puyana, M., & Marina, M. L. (2020). Chiral Micellar Electrokinetic Chromatography. *Journal of Chromatography A*, 1626. <https://doi.org/10.1016/j.chroma.2020.461383>
- Salo, H. M., Nguyen, N., Alakärppä, E., Klavins, L., Hykkerud, A. L., Karppinen, K., ... & Häggman, H. (2021). Authentication of berries and berry-based food products. *Comprehensive Reviews in Food Science and Food Safety*, 20(5), 5197-5225. <https://doi.org/10.1111/1541-4337.12811>
- Scherer, R., Rybka, A. C. P., Ballus, C. A., Meinhart, A. D., Teixeira Filho, J., & Godoy, H. T. (2012). Validation of a HPLC method for simultaneous

- determination of main organic acids in fruits and juices. *Food Chemistry*, 135(1), 150-154. <https://doi.org/10.1016/j.foodchem.2012.03.111>
- Sharma, N., Rathore, M., & Sharma, M. (2013). Microbial pectinase: sources, characterization and applications. *Reviews in Environmental Science and Bio/Technology*, 12(1), 45-60. <https://doi.org/10.1007/s11157-012-9276-9>
- Soares da Silva Burato, J., Vargas Medina, D. A., de Toffoli, A. L., Vasconcelos Soares Maciel, E., & Mauro Lanças, F. (2020). Recent advances and trends in miniaturized sample preparation techniques. *Journal of separation science*, 43(1), 202-225. <https://doi.org/10.1002/jssc.201900776>
- SOLAKYILDIRIM, K. (2019). Fast Punicalagin Content Analysis of Various Brands of Pomegranate (*Punica granatum* L.) Juices by UPLC-MS. *Hacettepe Journal of Biology and Chemistry*, 47(3), 267-275. <https://doi.org/10.15671/hjbc.626949>
- Sprenger, S., Hirn, S., Dietrich, H., & Will, F. (2015). Metatartaric acid: physicochemical characterization and analytical detection in wines and grape juices. *European Food Research and Technology*, 241(6), 785–791. <https://doi.org/10.1007/s00217-015-2503-1>
- Suhandy, D. (2014). Studies on the Use of Nondestructive Method Using VIR-NIR Spectroscopy for Color Determination of Blood Oranges Flesh. *Jurnal Ilmiah Teknik Pertanian-TekTan*, 6(2), 83-89. <https://doi.org/10.25181/tektan.v6i2.888>
- Tarazona-Díaz, M. P., & Aguayo, E. (2013). Influence of acidification, pasteurization, centrifugation and storage time and temperature on watermelon juice quality. *Journal of the Science of Food and Agriculture*, 93(15), 3863-3869. <https://doi.org/10.1002/jsfa.6332>
- Taştan, Ö., & Baysal, T. (2018). Adulteration analysis of pomegranate juice. *Adulteration Analysis of Some Foods and Drugs*, 50, 1. https://books.google.co.id/books?hl=en&lr=&id=JoJoDwAAQBAJ&oi=fnd&pg=PA91&dq=HPLC+for+detection+amino+acid+fruit+juice+adulteration¬s=ceBN1yHzlu&sig=WGKFvagc1mEUiqHLY0LZHjPU5Jc&redir_esc=y#v=onepage&q=HPLC%20for%20detection%20amino%20acid%20fruit%20juice%20adulteration&f=false
- Trimadya, N. M., Hardjomidjojo, H., & Anggraeni, E. (2018). SISTEM MANAJEMEN RISIKO KONTAMINASI PADA RANTAI PASOK PANGAN (STUDI KASUS: SUSU PASTEURISASI). *Journal of Agroindustrial Technology*, 28(2). <https://doi.org/10.24961/j.tek.ind.pert.2018.28.2.162>

- Wang, P., Liu, X., Su, X., & Zhu, R. (2015). Sensitive detection of β -agonists in pork tissue with novel molecularly imprinted polymer extraction followed liquid chromatography coupled tandem mass spectrometry detection. *Food Chemistry*, 184, 72–79. <https://doi.org/10.1016/j.foodchem.2015.03.073>
- Wang, X., Wang, S., & Cai, Z. (2013). The latest developments and applications of mass spectrometry in food-safety and quality analysis. *TrAC - Trends in Analytical Chemistry*, 52, 170–185. <https://doi.org/10.1016/j.trac.2013.08.005>
- Wistaff, E. A., Beller, S., Schmid, A., Neville, J. J., & Nietner, T. (2021). Chemometric analysis of amino acid profiles for detection of fruit juice adulterations—Application to verify authenticity of blood orange juice. *Food Chemistry*, 343, 128452. <https://doi.org/10.1016/j.foodchem.2020.128452>
- Wu, Y., Li, M., Yang, Y., Jiang, L., Liu, M., Wang, B., & Wang, Y. (2018). Authentication of small berry fruit in fruit products by DNA barcoding method. *Journal of food science*, 83(6), 1494-1504. <https://doi.org/10.1111/1750-3841.14177>
- Xu, L., Xu, Z., & Liao, X. (2021). A review of fruit juice authenticity assessments: Targeted and untargeted analyses. *Critical Reviews in Food Science and Nutrition*, 1-22. <https://doi.org/10.1080/10408398.2021.1895713>
- Yang, Y., Liu, M., Niu, N., Wang, H., Wang, B., Li, M., ... & Wu, Y. (2019). Identification of small berry species in food and juice using TaqMan-based real-time PCR. *Journal of AOAC International*, 102(5), 1552-1566. <https://doi.org/10.1093/jaoac/102.5.1552>