

REFERENCES

- [Abderrahim, 2013] F. Abderrahim, S.M. Arribas, M.C. Gonzalez, and L. Condezo-Hoyos, Rapid high-throughput assay to assess scavenging capacity index using DPPH,” *Food Chemistry*, 141, 2013, 788-794.
- [Alimelli, 2007] A. Alimelli, D. Filippini, R. Paolesse, S. Moretti, G. Ciolfi, A. D’Amico, I. Lundström, and C. Di Natale, “Direct quantitative evaluation of complex substances using computer screen photo-assisted technology: The case of red wine,” *Analytica Chimica Acta*, 597, 2007, 103-112.
- [Antolovich, 2002] M. Antolovich, P.D. Prenzler, E. Patsalides, S. McDonald, and K. Robards, “Methods for testing antioxidant activity,” *Analyst*, 127, 2002, 183-198.
- [Barbosa, 2015] A.I. Barbosa, P. Gehlot, K. Sidapra, A.D. Edwards, and N.M. Reis, “Portable smartphone quantitation of prostate specific antigen (PSA) in a fluoropolymer microfluidic device,” *Biosensors and Bioelectronics*, 70, 2015, 5-14.
- [Brand-Williams, 1995] W. Brand-Williams, M.E. Cuvelier, and C. Berset, “Use of a free radical method to evaluate antioxidant activity,” *LWT - Food Science and Technology*, 28, 1995, 25-30.
- [Capitán-Vallvey, 2015] L.F. Capitán-Vallvey, N. López-Ruiz, A. Martínez-Olmos, M.M. Erenas, and A.J. Palma, “Recent developments in computer vision-based analytical chemistry: A tutorial review,” *Analytica Chimica Acta*, 899, 2015, 23-56.

- [Cheng, 2010] C.M. Cheng, A.W. Martinez, J. Gong, C.R. Mace, S.T. Phillips, E. Carrilho, K.A. Mirica, and G.M. Whitesides, "Paper-Based ELISA," *Angewandte Chemie International Edition*, 49, 2010, 4771-4774.
- [Cheng, 2006] Z. Cheng, J. Moore, and L. Yu, "High-Throughput Relative DPPH Radical Scavenging Capacity Assay," *Journal of Agricultural and Food Chemistry*, 54, 2006, 7429-7436.
- [Choi, 2014] S. Choi, S. Kim, J.-S. Yang, J.-H. Lee, C. Joo, and H.-I. Jung, "Real-time measurement of human salivary cortisol for the assessment of psychological stress using a smartphone," *Sensing and Bio-Sensing Research*, 2, 2014, 8-11.
- [Choodum, 2013] A. Choodum, P. Kanatharana, W. Wongniramaikul, and N. Nic Daeid, "Using the iPhone as a device for a rapid quantitative analysis of trinitrotoluene in soil," *Talanta*, 115, 2013, 143-149.
- [Coskun, 2013] A.F. Coskun, J. Wong, D. Khodadadi, R. Nagi, A. Tey, and A. Ozcan, "A personalized food allergen testing platform on a cellphone," *Lab on a chip*, 13, 2013, 636-640.
- [Del Carlo, 2004] M. Del Carlo, G. Sacchetti, C. Di Mattia, D. Compagnone, D. Mastrocola, L. Liberatore, and A. Cichelli, "Contribution of the phenolic fraction to the antioxidant activity and oxidative stability of olive oil," *Journal of Agricultural and Food Chemistry*, 52, 2004, 4072-4079.
- [Delaney, 2013] J.L. Delaney, E.H. Doeven, A.J. Harsant, and C.F. Hogan, "Use of a mobile phone for potentiostatic control with low cost paper-based microfluidic sensors," *Analytica Chimica Acta*, 803, 2013, 123-127.
- [Facts about Antioxidants, 2016] "Fact about Antioxidants"
Website:<http://edis.ifas.ufl.edu/pdffiles/FS/FS24200.pdf>, 15 July 2016.

- [Filippini, 2005] D. Filippini, K. Tejle, and I. Lundström, “ELISA test for anti-neutrophil cytoplasm antibodies detection evaluated by a computer screen photo-assisted technique,” *Biosensors and Bioelectronics*, 21, 2005, 266-272.
- [Friaa, 2006] O. Friaa, and D. Brault, “Kinetics of the reaction between the antioxidant Trolox and the free radical DPPH[•] in semi-aqueous solution,” *Organic & Biomolecular Chemistry* 4, 2006, 2417-2423.
- [Grudpan, 2015] K. Grudpan, S.D. Kolev, S. Lapanantnopakhun, I.D. McKelvie, and W. Wongwilai, “Applications of everyday IT and communications devices in modern analytical chemistry: A review,” *Talanta*, 136, 2015, 84-94.
- [Lee, 2014] S. Lee, V. Oncescu, M. Mancuso, S. Mehta, and D. Erickson, “A smartphone platform for the quantification of vitamin D levels,” *Lab on a chip*, 14, 2014, 1437-1442.
- [Lobo, 2010] V. Lobo, A. Patil, A. Phatak, and N. Chandra, “Free radicals, antioxidants and functional foods Impact on human health,” *Pharmacognosy :Reviews*, 4, 2010, 118-126.
- [Lopez-Ruiz, 2012] N. López-Ruiz, A. Martínez-Olmos, I.M. Pérez de Vargas-Sansalvador, M.D. Fernández-Ramos, M.A. Carvajal, L.F. Capitan-Vallvey, and A.J. Palma, “Determination of O₂ using colour sensing from image processing with mobile devices,” *Sensors and Actuators B: Chemical*, 171-172, 2012, 938-945.
- [Lopez-Ruiz, 2014] N. Lopez-Ruiz, V.F. Curto, M.M. Erenas, F. Benito-Lopez, D. Diamond, A.J. Palma, and L.F. Capitan-Vallvey, “Smartphone-based simultaneous pH and Nitrite colorimetric determination for paper microfluidic devices,” *Analytical Chemistry*, 86, 2014, 9554-9562.
- [Lou, 2012] H. Lou, Y. Hu, L. Zhang, P. Sun, and H. Lu, “Nondestructive evaluation of the changes of total flavonoid, total phenols, ABTS and DPPH radical

scavenging activities, and sugars during mulberry (*Morus alba* L.) fruits development by chlorophyll fluorescence and RGB intensity values,” *LWT - Food Science and Technology*, 47, 2012, 19-24.

[Mandelker, 2012] L. Mandelker, “Introduction to oxidative stress and mitochondrial dysfunction. veterinary clinics of north america,” *Small Animal Practice*, 38 ,2008, 1-30.

[Medeiros de Moraes, 2014] C.d.L. Medeiros de Moraes, and K.M.G. de Lima, “A colorimetric microwell method using a desktop scanner for biochemical assays,” *Talanta*, 126 ,2014, 145-150.

[Milardović, 2006] S. Milardović, D. Iveković, and B.S. Grabarić, “A novel amperometric method for antioxidant activity determination using DPPH free radical,” *Bioelectrochemistry*, 68, 2006, 175-180.

[Miller, 1993] Miller, J.C., Miller, J.N., *Statistics for analytical chemistry*, 3rd ed., Ellis Horwood, 1993, pp. 58, ISBN 0-13-030990-7.

[Moon, 2009] J.-K. Moon, and T. Shibamoto, “Antioxidant assays for plant and food components,” *Journal of Agricultural and Food Chemistry*, 57, 2009, 1655-1666.

[Moonrungssee, 2015] N. Moonrungssee, S. Pancharee, and J. Jakmunee, “Colorimetric analyzer based on mobile phone camera for determination of available phosphorus in soil,” *Talanta*, 136, 2015, 204-209.

[Murdock, 2013] R.C. Murdock, L. Shen, D.K. Griffin, N. Kelley-Loughnane, I. Papautsky, and J.A. Hagen, “Optimization of a paper-based ELISA for a human performance biomarker,” *Analytical Chemistry*, 85, 2013, 11634-11642.

[Oncescu, 2013] V. Oncescu, D. O'Dell, and D. Erickson, “Smartphone based health accessory for colorimetric detection of biomarkers in sweat and saliva,” *Lab on a chip*, 13, 2013, 3232-3238.

- [Oncescu, 2014] V. Oncescu, M. Mancuso, and D. Erickson, "Cholesterol testing on a smartphone," *Lab on a chip*, 14, 2014, 759-763.
- [Sumriddetchkajorn, 2013] S. Sumriddetchkajorn, K. Chaitavon, and Y. Intaravanne, "Mobile device-based self-referencing colorimeter for monitoring chlorine concentration in water," *Sensors and Actuators B: Chemical*, 182, 2013, 592-597.
- [Sun, 2008] J.P. Sun, C.Y. Hou, J. Feng, and X.U. Wang, "Determination of the protein content in rice by the digital chromatic method," *Journal of Food Quality*, 31, 2008, 250-263.
- [Thom, 2014] N.K. Thom, G.G. Lewis, K. Yeung, and S.T. Phillips, "Quantitative fluorescence assays using a self-powered paper-based microfluidic device and a camera-equipped cellular phone," *RSC Advances*, 4, 2014, 1334-1340.
- [Tôrres, 2011] A.R. Tôrres, W. da Silva Lyra, S.I.E. de Andrade, R.A.N. Andrade, E.C. da Silva, M.C.U. Araújo, and E. da Nóbrega Gaião, "A digital image-based method for determining of total acidity in red wines using acid-base titration without indicator," *Talanta*, 84, 2011, 601-606.
- [Wei, 2014] Q. Wei, R. Nagi, K. Sadeghi, S. Feng, E. Yan, S.J. Ki, R. Caire, D. Tseng, and A. Ozcan, "Detection and Spatial Mapping of Mercury Contamination in Water Samples Using a Smart-Phone," *ACS Nano*, 8, 2014, 1121-1129.
- [Wongwilai, 2010] W. Wongwilai, S. Lapanantnoppakhun, S. Grudpan, and K. Grudpan, "Webcam camera as a detector for a simple lab-on-chip time based approach," *Talanta*, 81, 2010, 1137-1141.

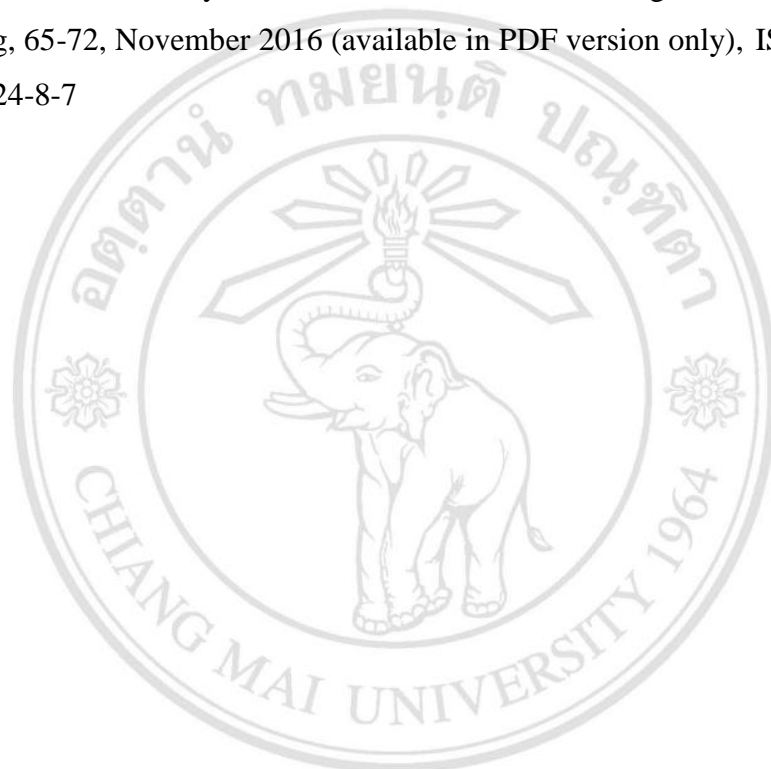
[Yetisen, 2014] A.K. Yetisen, J.L. Martinez-Hurtado, A. Garcia-Melendrez, F. da Cruz Vasconcellos, and C.R. Lowe, “A smartphone algorithm with inter-phone repeatability for the analysis of colorimetric tests,” *Sensors and Actuators B: Chemical*, 196, 2014, 156-160.



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

LIST OF PUBLICATION

- 1) N. Chamklan, B. Panyangam, J. Chaijaruwanich and J. Jakmune, “A simple colorimetric detection on well plate for high throughput antioxidative assay,” The Science Society of Thailand Under the Patronage of His Majesty the King, 65-72, November 2016 (available in PDF version only), ISBN 978-616-91224-8-7



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved