

7.0 REFERENCES

- Abdalla, A.E.M., Darwish, S.M., Ayad, E.H.E. and El-Hamahmy, R.M. (2006). Egyptian mango by-product 2: Antioxidant and antimicrobial activities of extract and oil from mango seed kernel. *Food Chem.*, **103**, 1141–1152.
- Abdel Moneim, A.E., Dkhil, M.A. and Al-Quraishy, S. (2011). Studies on the effect of pomegranate (*Punica granatum*) juice and peel on liver and kidney in adult male rats. *J. Med Plants Res.*, **5**, 5083–5088.
- Adachi, M. and Ishii, H. (2002). Role of mitochondria in alcoholic liver injury. *Free Rad Biol Med.*, **3**, 487–491.
- Adaramoye, A.A. and Oloyede, G.K. (2012). Effect of Moderate ethanol administration on biochemical indices in streptozotocin-diabetic wistar rats. *West Ind Med J.*, **61**, 3–9.
- Adas, F., Betthou, F., Picart, D., Lozac'h, P., Beauge, F. and Amet, Y. (1998). Involvement of cytochrome P450 2E1 in the (omega-1) – hydroxylation of oleic acid in human and rat liver microsomes. *J. Lipid Res.*, **39**, 1210–19.
- Aderibigbe, A.O., Emudianughe, T.S. and Lawal, B.A.S. (1999). Antihyperglycaemic effect of *Mangifera indica* in rat. *Phytother Res.*, **13**, 504–507.
- Adewusi, EA. and Afolayan, AJ. (2010). Effect of Pelargonium reniforme roots on alcohol-induced liver damage and oxidative stress. *Pharm Biol.*, **48**, 980–987.
- Adriantsitohaina, R. (1999). Regulation of vascular tone by plant polyphenols: role of nitric oxide. *Gen Physiol Biophys.*, **18**, 3–5.
- Aebi, H. (1984). Catalase *in vitro*. *Methods in Enzymol.*, **105**, 121–126.
- Agarwal, D.P. and Seitz, H.K. (2001). Alcohol in health and disease. New York: Marcel Dekker, pp. 632.
- Ahmed, A., Saeid, D., Eman, A. and Reham, E. (2007). Egyptian mango by-product 1. Compositional quality of mango seed kernel. *Food Chem.*, **103**, 1141–1152.
- Ahmed, M.M. and Zaki, N.I. (2009). Assessment the ameliorative effect of pomegranate and rutin on chlorpyrifos-ethyl-induced oxidative stress in rats. *Nat Sci.*, **7**, 49–61.
- Ahn, H.J., Kim, J.H., Kim, J.K., Kim, D.H., Yook, H.S., Byun, M.W. (2005). Combined effects of irradiation and modified atmosphere packaging on minimally processed Chinese cabbage (*Brassica rapa* L). *Food Chem.*, **89**, 589–597.
- Aina, J.O. (1990). Physicochemical changes in African mango (*Irvingia gabonensis*) during normal storage ripening. *Food Chem.*, **36**, 205–212.

- Ajila, C.M., Naidu, K.A., Bhat, S.G. and Prasada Rao, U.J.S. (2007). Valuable components of raw and ripe peels from two Indian mango varieties. *Food Chem.*, **102**, 1006–1011.
- Ajith, T.A., Nivitha, V. and Usha, S. (2007). Zingiber officinale Roscoe alone and in combination with a tocopherol protect the kidney against cisplatin–induced acute renal failure. *Food Chem Toxicol.*, **45**, 921–927.
- Akacha, N.B., Boubaker, O. and Gargouri, M. (2005). Production of hexenol in a two–enzyme system: Kinetic study and modelling. *Biotechnol. Lett.*, **27**, 1875–1878.
- Akakabe, Y., Sakamoto, M., Ikeda, Y. and Tanaka, M. (2008). Identification and characterization of volatile components of Japanese sour citrus fruit *Citrus nagato–yuzukichi* Tanaka. *Biosci. Biotechnol. Biochem.*, **72**, 1965–1968.
- Al–Bachir, M. (1999). Effect of gamma irradiation on storability of apples (*Malus domestica* L). *Plant Foods Hum. Nutr.*, **54**, 1–11.
- Albano, E. (2002). Free radicals and alcohol–induced liver injury. In *Ethanol and the Liver*, pp. 153–190 (CDIN Sherman, VR Preedy and RR Watson, editors). London: Taylor and Francis.
- Aleynik, M.K., Leo, M.A., Aleynik, S.I. and Lieber, C.S. (1999). Polyenylphosphatidylcholine opposes the increase of cytochrome P4502E1 by ethanol and corrects its iron–induced decrease. *Alcohol Clin. Exp. Res.*, **23**, 96–100.
- Alighourchi, H., Barzegar, M. and Abbasi, S. (2008). Effect of gamma irradiation on the stability of anthocyanins and shelf–life of various pomegranate juices. *Food Chem.*, **110**, 1036–1040.
- Alimi, H., Bouonic, Z., Ferianic, A., Hfaeidhc, N., Saklyb, M. and Rhoumab, K.B. (2013). *Opuntia ficus indica f. inermis* fruit juice alleviates ethanol–induced kidney injury in rats. *Asian J. Biomed Pharma Sci.*, **3**, 15–21.
- Alin, P., Danielson, U.H. and Mannervik, B. (1985). 4–Hydroxyalk–2–enals are substances for glutathione transferase. *FEBS Lett.*, **179**, 269–270.
- Allen, J.P., Litten, R.Z., Fertig, J.B. and Sillanaukee, P. (2000). Carbohydrate–deficient transferrin, γ –glutamyltransferase, and macrocytic volume as biomarkers of alcohol problems in women. *Alcohol Clin Exp Res.*, **24**, 492–496.
- Al–Maiman, S.A., and Ahmad, D. (2002). Changes in physical and chemical properties during pomegranate (*Punica granatum* L.) fruit maturation. *Food Chem.*, **76**, 437–441.
- Altenburg, A., Zouboulis, C.C. (2008). Current concepts in the treatment of recurrent aphthous stomatitis. *Skin Therapy Lett.*, **13**, 1–9.

- Alves, J.A., Lima, L.C.O., Dias, D.R., Nunes, C.A. and Schwan, R.F. (2010). Effects of spontaneous and inoculated fermentation on the volatile profile of lychee (*Litchi chinensis* Sonn) fermented beverages. *Int. J. Food Sci. Tech.*, **45**, 2358–2365.
- Ames, B.M., Shigenaga, M.K. and Hagwn, T.M. (1993). Oxidants, antioxidants and the degenerative diseases of aging. *Proc. Natl. Acad. Sci. U.S.A.*, **90**, 7915–7922.
- Ananthakumar, A., Variyar, P.S. and Sharma, A. (2006). Estimation of aroma glycosides of nutmeg and their changes during radiation processing. *J. Chromatogr A.*, **1108**, 252–257.
- Ancin, C., Ayestarin, B., Corroza, M., Garrido, J. and Gonziilez, A. (1996). Influence of prefermentation clarification on the higher alcohol contents of wines. *Food Chem.*, **55**, 241–249.
- Andrade, E.H.A., Maia, J.G.S. and Zoghbi, M.D.G.B. (2000). Aroma Volatile Constituents of Brazilian Varieties of Mango Fruit. *J. Food Compos. Anal.*, **13**, 27–33.
- Anilakumar, K.R., Khanum, F., Krishna, K.R.S., Santhanam, K. (2003). Reduction of dimethylhydrazine–induced cytotoxicity by mango fruit bar: changes in antioxidant enzymes in rats. *Plant Foods Hum Nutr.*, **58**, 1–11.
- Anon. (1962). Wealth of India – Raw Materials 6, (L–M.), New Delhi, India: Publication and information directorate, CSIR.
- Ansari, S.H., Ali, M., Velasco–Negueruela, A. and PeHrez–Alonso, M.J. (1999). Volatile constituents of the fruits of three mango cultivars. *J. Essent. Oil Res.*, **11**, 65–68.
- Antononkov, V.D., Pirozhkov, S.V., Popova, S.V. and Panchenko, L.F. (1989). Effect of chronic ethanol, catalase inhibitor 3–amino–1,2,4–triazole and clofibrate treatment on lipid peroxidation in myocardium. *Int. J. Biochem.*, **2**, 1313–1318.
- Antony, J.C. (1984). Malt beverages and malt brewing materials: gas chromatographic determination of ethanol in beer. *J Assoc Off Ana Chem.*, **67**, 192–193.
- Arauz, L. (2000). Mango anthracnose: Economic impact and current options for integrated management. *Plant Dise.*, **84**, 600–611.
- Arctander, S. (1969). Perfume and Flavor Chemicals. Montclair, NJ: Arctander.
- Armstrong, M.A., Midanik, L.T. and Klatsky, A.L. (1998). Alcohol consumption and utilization of health services in a health maintenance organization. *Med Care.*, **36**, 1599–1605.

- Arola, L., Roig, R., Cascon, E., Brunet, M.J., Fornos, N., Sabate, M., Raga, X., Batista, J., Salvado, M.J. and Blade, C. (1997). Model for voluntary wine and alcohol consumption in rats. *Physiol Behav.*, **62**, 353–357.
- Arteel, G.E. (2003). Oxidants and antioxidants in alcoholic liver disease. *Gastroenterol.*, **124**, 778–790.
- Arthur, J.R. (2000). The glutathione peroxidases. *Cell. Mol. Life Sci.*, **57**, 1825–1835.
- Aruoma, O.I. (1994). Nutrition and health aspects of free radicals and antioxidants. *Food Chem Toxicol.*, **32**, 671–683.
- Aruoma. (1998). Free Radicals, Oxidative Stress, and Antioxidants in Human Health and Disease. *JAOCS*, **75**, 199–212.
- Assmann, G. and Nofer, J.R. (2003). Atheroprotective effects of high-density lipoproteins. *Ann Rev Med.*, **54**, 321–341.
- Association of Official Analytical Chemists. (AOAC, 1984). Bacteriological Analytical Manual, National government publication, 6th ed., Washington, DC: p. 68–261.
- Atanasiu, R., Stea, D., Mateescu, M., Vergel, Y., Dalloz, F., Briot, F., Maupoil, V., Nadeau, R. and Rochette, L. (1998). Direct evidence of ceruloplasmin antioxidant properties. *Mol Cell Biochem.*, **189**, 127–135.
- Auldridge, M.E., Block, A., Vogel, J.T., Dabney-Smith, C., Mila, I., Bouzayen, M., Magallanes-Lundback, M., DellaPenna, D., McCarty, D.R. and Klee, H.J. (2006b). Characterization of three members of the Arabidopsis carotenoid cleavage dioxygenase family demonstrates the divergent roles of this multifunctional enzyme family. *Plant J.*, **45**, 982–993.
- Auldridge, M.E., McCarty, D.R. and Klee, H.J. (2006a). Plant carotenoid cleavage oxygenases and their apocarotenoid products. *Curr. Opin. Plant Biol.*, **9**, 315–321.
- Aviram, M., Kaplan, M., Rosenblat, M. and Fuhrman, B. (2005). Dietary antioxidants and paraoxonases against LDL oxidation and atherosclerosis development. *Handb Exp Pharma col.*, **170**, 263–300.
- Awe, S. and Olayinka, E.T. (2011). Effect of cashew wine on histology and enzyme activities of rat liver. *J Toxicol Environ Health Sci.*, **3**, 31–38.
- Ayed, N., Yu, H.L and Lacroix, M. (1999). Improvement of anthocyanin yield and shelf-life extension of grape pomace by gamma irradiation. *J. of Food Research International.*, **32**, 539–543.

- Babal, P., Kristova, V., Cerna, A., Janega, P., Pechanova, O., Danihel, L. and Andriantsitohaina, R. (2006). Red wine polyphenols prevent endothelial damage induced by CCl₄ administration. *Physiol Res.*, **55**, 245–251.
- Bachir, M.A. (1999). Effect of gamma irradiation on storability of two cultivars of Syrian grapes (*Vitis vinifera*). *Radiat Phys Chem.*, **55**, 81–85.
- Bafna, P.A. and Balaraman, R. (2005). Antioxidant activity of DHC-1, an herbal formulation, in experimentally-induced cardiac and renal damage. *Phytother Res.*, **19**, 216–221.
- Bailey, S.M. and Cunningham, C.C. (2002). Contribution of mitochondria to oxidative stress associated with alcohol liver disease. *Free Radical Biol Med.*, **32**, 11–16.
- Baker, A., Graham, I.A., Hodsworth, M. and Smith, S.M. (2006). Chewing the fat: β -Oxidation in signaling and development. *Trends Plant Sci.*, **11**, 124–132.
- Balasubramaniyan, V., Kalaivani, S.J. and Nalini, N. (2003). Role of leptin on alcohol-induced oxidative stress in Swiss mice. *Pharmacol Res.*, **47**, 211–216.
- Baldwin, I.T., Kessler, A. and Halitschke, R. (2002). Volatile signaling in plant-plant-herbivore interactions: What is real. *J. Curr. Opin. Plant Biol.*, **5**, 351–354.
- Baraona, E. (2000). Site and quantitative importance of alcohol first-pass metabolism. *Alcohol Clin Exp Res.*, **24**, 405–406.
- Barclay, L.R.C. (1993). Quantitative studies of peroxidation, antioxidant action, partitioning and oxidative stress. *Can. J. Chem.*, **71**, 1–16.
- Barnett, J.A., Payne, R.W., and Yarrow, D. (2000). *Yeasts: characteristics and identification*. Cambridge: Cambridge University Press.
- Baron, D.N. (1987). A short textbook of chemical pathology, 4th edition—English Language Book Society/Hodder and Stoughton Ltd, Mill Road, Dunton Green, Sevenoaks, Kent, Great Britain, pp 188–228.
- Barreto, J.C., Trevisan, M.T.S., Hull, W.E., Erben, G., de Brito, E.S., Pfundstein, B., Wurtele, Spiegelhalder, B. and Owen, R.W. (2008). Characterization and quantification of polyphenolic compounds in bark, kernel, leaves, and peel of mango *J Agric Food Chem.*, **56**, 5599–5610.
- Bartley, I.M., Stoker, P.G., Martin, A.D.E., Hatfield, S.G.S. and Knee, M. (1985). Synthesis of aroma compounds by apples supplied with alcohols and methyl esters of fatty acids. *J. Sci. Food Agric.*, **36**, 567–574.

- Bartley, J.P. and Schwede, A. (1987). Volatile flavor components in the headspace of the Australian or 'Bowen' mango. *J. Food Sci.*, **52**, 353–360.
- Bauer, F.F. and Pretorius, I.S. (2000). Yeast stress response and fermentation efficiency: How to survive the making of wine—A review. *S Afr Enol Vitic.*, **21**, 27–51.
- Beauchamp, G.K. and Bartoshuk, L. (1997). Tasting and Smelling. Academic Press, San Diego CA.
- Beaulieu, J.C., Ingram, D.A., Lea, J.M. and Bett–Garber, K.L. (2004). Effect of harvest maturity on the sensory characteristics of fresh–cut cantaloupe. *J. Food Sci.*, **69**, 250–258.
- Beckman, J.S. and Koppenol, W.H. (1996). Nitric oxide, superoxide and peroxynitrite: the good, the bad and the ugly. *American J. Physiol.*, **271**, 1424–1437.
- Beekwilder, J., Alvarez–Huerta, M., Neef, E., Verstappen, F.W.A., Bouwmeester, H.J. and Aharoni, A. (2004). Substrate usage by recombinant alcohol acyltransferases from various fruit species. *Plant Physiol.*, **135**, 1865–1878.
- Belitz, H.D., Grosch, W. and Schieberle, P. (2004). *Food Chem.* 3rd revised ed. Springer–Verlag, Berlin, Heidelberg, New York.
- Bell, J.R.C., Donovan, J.L., Wong, R., Waterhouse, A.L., German, J.B. and Walzen, J.R. (2000). (+)–Catechin in human plasma after ingestion of a single serving of reconstituted red wine. *Am J. Clin Nutr.*, **71**, 103–108.
- Bell, S.J. and Henschke, P.A. (2005). Implications of nitrogen nutrition for grapes, fermentation and wine. *Aust J Grape Wine Res.*, **11**, 242–295.
- Bellentani, S., Tiribelli, C. and Saccoccio, G. (1994). Prevalence of chronic liver disease in the general population of Northern Italy: the Dionysos study. *Hepatology*, **20**, 1442–1449.
- Benito, S., Buxaderas, S. and Mitjavila, M.T. (2004). Flavonoid metabolites and susceptibility of rat lipoproteins to oxidation. *Am J. Physiol.*, **287**, 2819–2824.
- Benzie, I.F.F. and Strain, J.J. (1996). The ferric reducing ability of plasma as a measure of antioxidant power: the FRAP assay. *Anal Biochem.*, **239**, 70–76.
- Berardini, N., Carle, R. and Schieber, A. (2004). Characterization of gallotannins and benzophenone derivatives from mango (*Mangifera indica* L. Cv. Tommy Atkins) peels, pulp and kernels by high–performance liquid chromatography/electrospray ionization mass spectrometry. *Rapid Commun Mass Spectrom.*, **18**, 2208–2216.

- Berardini, N., Fezer, R., Conrad, J., Beifuss, U., Carle, R. and Schieber, A. (2005). Screening of mango (*Mangifera indica* L.) cultivars for their contents of flavonol O- and xanthone C-glycosides, anthocyanins, and pectin. *J Agric Food Chem.*, **53**, 1563–1570.
- Berardini, N., Knoedler, M., Schieber, A. and Carle, R. (2005a). Utilization of mango peels as a source of pectin and polyphenolics. *Inn Food Sci Emerg Tech.*, **6**, 442–452.
- Berardini, N., Schieber, A., Klaiber, I., Beifuss, U., Carle, R. and Conrad, J. (2005b). 7-O-methylcyanidin 3-O- β -D-galactopyranoside, a novel anthocyanin from mango (*Mangifera indica* L.) cv. ‘Tommy Atkins’ peels. *Chem Sci.*, **60**, 801–804.
- Berger, R.G. *Flavours and Fragrances—Chemistry, Bioprocessing and Sustainability*; Springer-Verlag: Berlin, Germany, 2007.
- Bertelli, A.A., Giovannini, L., Stradi, R., Bertelli, S.R. and Tillement, J.P. (1996). Plasma, urine and tissue levels of trans- and cis-resveratrol (3,4',5-trihydroxystilbene) after short-term or prolonged administration of red wine to rats. *Int J. Tissue React.*, **18**, 67–71.
- Bertelli, A.A.E., Migliori, M., Panichi, V., Longoni, B., Origlia, N., Ferretti, A., Cuttano, M.G. and Giovannini, L. (2002). Oxidative stress and inflammatory reaction modulation by white wine. *Ann NY Acad Sci.*, **957**, 295–301.
- Bharrhan, S., Koul, A., Chopra, K. and Rishi, P. (2011). Catechin suppresses an array of signalling molecules and modulates alcohol-induced endotoxin mediated liver injury in a rat model. *PLoS ONE.*, **6**, e20635.
- Bisson, L.F., Waterhouse, A.L., Ebeler, S.E., Walker, M.A. and Lapsley, J.T. (2002). The present and future of the international wine industry. *Nature.*, **418**, 696–699.
- Bjorkhem, I. (1972). On the role of alcohol dehydrogenase in ω -oxidation of fatty acids. *Eur. J. Biochem.*, **30**, 441–51.
- Board, P.G. and Anders, M.W. (2005). Human glutathione transferase zeta. *Methods Enzymol.*, **401**, 61–77.
- Board, P.G. (1998). Identification of cDNAs encoding two human alpha class glutathione transferases (GSTA3 and GSTA4) and the heterologous expression of GSTA4. *Biochem J.*, **330**, 827–831.
- Bondy, S.C. (1992). Ethanol toxicity and oxidative stress, *Toxicol Lett.* **63**, 231–241.
- Bonerz, D.P.M., Nikfardjam, M.S.P. and Creasy, G.L. (2008). A new RP-HPLC method for analysis of polyphenols, anthocyanins, and indole-3-acetic acid in wine. *Amer J Enol Viticult.*, **59**, 106–109.

- Booker, J., Auldridge, M., Wills, S., McCarty, D., Klee, H.J. and Leyser, O. (2004). MAX3/CCD7 is a carotenoid cleavage dioxygenase required for the synthesis of a novel plant signaling molecule. *Curr. Biol.*, **14**, 1232–1238.
- Bosron, W.F., Ehrig, T. and Li, T.K. (1993). Genetic factors in alcohol metabolism and alcoholism. *Semin Liver Dis.*, **13**, 126–135.
- Boulton, R., Singleton, V.L., Bisson, L.F. and Kunkee R.E. (1996). Yeast and biochemistry of ethanol fermentation. In: Principles and Practices of Wine-making. Chapman and Hall, New York, USA. Pp 102–192.
- Bouvier, F., Dogbo, O. and Camara, B. (2003a). Biosynthesis of the food and cosmetic plant pigment bixin (annatto). *Science.*, **300**, 2089–2091.
- Bouvier, F., Suire, C., Mutterer, J. and Camara, B. (2003b). Oxidative remodeling of chromoplast carotenoids: identification of the carotenoid dioxygenase *CsCCD* and *CsZCD* genes involved in Crocus secondary metabolite biogenesis. *Plant Cell.*, **15**, 47–62.
- Bouwmeester, H.J., Konings, M.C.J.M., Gershenzon, J., Karp, F. and Croteau, R. (1999). Cytochrome P-450 dependent (+)-limonene-6-hydroxylation in fruits of caraway (*Carum carvi*). *Phytochemistry.*, **50**, 243–248.
- Bovell-Benjamin, A.C. and Guinard, J.X. (2003). Novel approaches and application of contemporary sensory evaluation practices in iron fortification programs. *Crit Rev Food Sci Nutr.*, **43**, 379–400.
- Boylston, T.D., Reitmeier, C.A., Moy, J.H., Mosher, G.A. and Taladriz, L. (2002). Sensory quality and nutrient composition of three Hawaiian fruits treated by X-irradiation. *J. Food Qual.*, **25**, 419–433.
- Brand-Williams, W., Cuvelier, M.E. and Berset, C. (1995). Use of free radical method to evaluate antioxidant activity. *LWT-Food Sci Technol.*, **28**, 25–30.
- Breitfellner, F., Solar, S. and Sontag, G. (2003). Radiation induced chemical changes of phenolic compounds in strawberries. *Radiat Phys Chem.*, **67**, 497–499.
- Brinton, E.A. (2010). Effects of ethanol intake on lipoproteins and atherosclerosis. *Curr Opin Lipidol.*, **21**, 346–351.
- Brosins, F.C. and Roberts, W.S. (1983). Significance of coronary artery thrombosis in transmural acute myocardial infarction. A study of 54 necropsy patients. *Circulation.*, **63**, 810–816.

- Brown, L.A., Harris, F.L., Ping, X.D. and Gauthier, T.W. (2004). Chronic ethanol ingestion and the risk of acute lung injury: A role for glutathione availability? *Alcohol*, **33**, 191–197.
- Bruckner, B. (2008). *Fruit and Vegetable Flavour: Recent Advances and Future Prospects*; Woodhead Publishing Limited: Abington Hall, Cambridge, UK.
- Brzoska, M.M., Moniuszko–Jakoniuk, J., Pilat–Marcinkiewicz, B. and Sawicki, B. (2003). Liver and kidney function and histology in rats exposed to cadmium and ethanol. *Alcohol Alcohol.*, **38**, 2–10.
- Brzozowski, T., Konturek, S.J., Kwiecien, S., Pajdo, R., Drozdowicz, D., Sliwowski, Z. and Muramatsu, M. (1998). SU–840, a novel synthetic flavonoid derivative of sophoradin, with potent gastroprotective and ulcer healing activity. *J Physiol Pharmacol.*, **49**, 83–98.
- Buchanan, R.L., Edelson, S.G., Snipes, K. and Boyd, G. (1998). Inactivation of *Escherichia coli* O157:H7 in apple juice by irradiation. *Appl Environ Microbiol.*, **64**, 4533–4535.
- Burstein, M., Scholnick, H.R. and Morfin, R. (1970). Rapid method for isolation of lipoproteins from human serum by precipitation with polyanions. *J Lipid Res.*, **11**, 583–595.
- Buttery, R.G. (1993). Quantitative and sensory aspects of flavor of tomato and other vegetable and fruits. In *Flavor Science: Sensible Principles and Techniques*; Acree, T.E., Teranishi, R., Eds.; ACS: Washington, DC, USA, pp. 259–286.
- Byun, M.W., Kim, D.H., Yook, H.S., Cha, B.S. and Kim, J.O. (2001). Changes in microbiological and general qualities in gamma irradiated Doenjang (fermented soybean paste). *Food Sci. Biotechnol.*, **10**, 7–11.
- Cabranes, C., Moreno, J. and Mangas, J.J. (1990). Dynamics of yeast population during cider fermentation in the Asturian Region of Spain. *Appl Environ Microbiol.*, **56**, 381–384.
- Cabrera, M.J., Moreno, J., Ortega, J.M. and Medina, M. (1988). Formation of ethanol, higher alcohols, esters and terpenes by five yeast strains in musts from Pedro Ximenez grapes in various degrees of ripeness. *Am J Enol Vitic.*, **39**, 283–287.
- Calderon, F., Varela, F., Navascues, E., Colomo, B., Gonzalez, M.C. and Suarez, J.A. (2001). Influence of pH and temperature in the biosynthesis of malic acid in wines by *Saccharomyces cerevisiae*. *Bull. OIV*, **74**, 845–846.
- Caldwell, C.L. and Spayd, S.E. (1989). Effects of gamma irradiation on chemical and sensory evaluation of Cabernet Sauvignon wine. *J. Am Chem Soc.*, **26**, 337–345.

- Camara, M.M., Diez, C., Torija, M.E and Cano, M.P. (1994). HPLC determination of organic acids in pineapple juices and nectars. *Eur. Food Res. Technol.*, **198**, 52–56.
- Cane, D.E. (1999). Sesquiterpene biosynthesis: Cyclization mechanisms. In *Comprehensive Natural Products Chemistry: Isoprenoids Including Carotenoids and Steroids*; Cane, D.E., Ed.; Pergamon Press: Oxford, UK, Volume 2, pp. 155–200.
- Cao, G., Sofic, E. and Prior, R.L. (1996). Antioxidant capacity of tea and common vegetables. *J Agri Food Chem.*, **44**, 3426–3431.
- Cao, Y.H. and Cao, R.H. (1999). Angiogenesis inhibited by drinking tea. *Nature.*, **398**, 381.
- Caraway, W.T. (1963) In: D. Seligron (Ed.). *Standard Methods of Clinical Chemistry*. Academic Press, New York, Vol. 4, pp. 239.
- Carcia, C.V., Stevenson, R.J., Atkinson, R.G., Winz, R.A. and Yong Quik, S. (2013). Changes in the bound aroma profiles of “Hayward” and “Hort16A” kiwifruit (*Actinidia* spp.) during ripening and GC–olfactometry analysis. *Food Chem.*, **137**, 45–54.
- Cardello, A.V. and Schutz, H. (2000). Prediction of food acceptance, consumption, and satisfaction in specific eating situations. *Food Qual Pref.*, **11**, 201–216.
- Carluccio, M.A., Siculella, L., Ancora, M.A., Massaro, M., Scoditti, E., Storelli, C., Visioli, F., Distante, A. and De Caterina, R. (2003). Olive oil and red wine antioxidant polyphenols inhibit endothelial activation: antiatherogenic properties of Mediterranean diet phytochemicals. *Arterioscler Thromb Vasc Biol.*, **23**, 622–629.
- Caro, A.A. and Cederbaum, A.I. (2004). Oxidative stress, toxicology and pharmacology of CYP2E1. *Annu Rev Pharmacol Toxicol.*, **44**, 27–42.
- Carpenter, R.P., Lyon, D.H. and Hasdell, T.A. (2000). *Guidelines for sensory analysis in food product development and quality control* (2nd ed.). Maryland: Aspen Publishers, Inc.
- Chachin, K. and Ogata, K. (1969). Changes of chemical constituents and quality in some juice irradiated with the sterilizing dose level of gamma rays. *Food Irradiation*, **4**, 85–90.
- Chamulitrat, W. and Spitzer, J.J. (1996). Nitric oxide and liver injury in alcohol–fed rats after lipopolysaccharide administration. *Alcohol Clin Exp Res.*, **20**, 1065–1070.
- Chan, H.W.S. (1987). *Autoxidation of Unsaturated Lipids*; Academic Press: London, UK.
- Chander, R., Kapoor, N. K. and Singh, C. (1987). Lipoprotein–X in hyperlipemic rat serum in chronic ethanol and acetaldehyde administration. *J. Biosci.*, **12**, 55–59.

- Chandra, R., Aneja, R., Rewal, C., Konduri, R., Das, S. K. and Agarwal, S. (2000). An opium alkaloid papaverine ameliorates ethanol induced hepatotoxicity diminution of oxidative stress, *Ind J Clin Biochem.*, **15**, 155–160.
- Chang, A.C. (2003). The effects of gamma irradiation on rice wine maturation. *Food Chem.*, **83**, 323–327.
- Chang, A.C. (2004). The effects of different accelerating techniques on maize wine maturation. *Food Chem.*, **86**, 61–68.
- Chang, A.C. and Chen, F.C. (2002). The application of 20 kHz ultrasonic waves to accelerate the aging of different wines. *J. Food Chem.*, **79**, 501–506.
- Chang, C., Yang, M., Wen, H. and Chen, J. (2002). Estimation of total flavonoids content in propolis by two complementary colorimetric methods. *J Food Drug Anal.*, **10**, 178–182.
- Chang, S.T., Wu, J.H., Wang, S.Y., Kang, P.L., Yang, N.S. and Shyur, L.F. (2001). Antioxidant activity of extracts from *Acacia confusa* bark and heartwood. *J. Agric. Food Chem.*, **49**, 3420–3424.
- Char, B.L.N. and Azeemoddin, G. (1989). Edible fat from mango stones. *Acta Horticulture* **231**, 744–748.
- Chaudhary, P., Shukla, S.K., Kumar, I.P., Namita, I., Afrin, F. and Sharma, R.K. (2006). Radioprotective properties of apple polyphenols: An *in vitro* study. *Mol Cell Biol.*, **288**, 37–46.
- Chaudry, M.A., Bibi, N., Khan, M., Badshah, A. and Qureshi, M.J. (2004). Irradiation treatment of minimally processed carrots for ensuring microbiological safety. *Radiat. Phys. Chem.*, **71**, 169–173.
- Chaves, M., Zea, L., Moyano, L. and Medina, M. (2007). Changes in color and odorant compounds during oxidative aging of pedro ximenez sweet wines. *J Agri Food Chem.*, **55**, 3592–3598.
- Cheirslip, B. and Umsakul, K. (2008). Processing of banana based wine product using pectinase and α -amylase. *J Food Process Eng.*, **31**, 78–90.
- Chen, B.H., Peng, H.Y. and Chen, H.E. (1995). Changes of carotenoids, color, and vitamin A contents during processing of carrot juice. *J Agri Food Chem.*, **43**, 1912–1918.
- Chen, H. and Juchau, M.R. (1998). Recombinant human glutathione-S-transferases catalyse enzymic isomerization of 13-cis-retinoic acid to alltrans-retinoic acid in vitro. *Biochem J.*, **336**, 223–226.

- Chen, Z.Y., Chan, P.T., Ho, K.Y., Fung, K.P. and Wang, J. (1996). Antioxidative activity of natural flavonoids is governed by number and location of their aromatic hydroxyl groups. *Chem Phys Lipids.*, **79**, 157–163.
- Cheong, K.W., Tan, C.P., Mirhosseini, H., Hamid, N.S.A., Osman, A. and Basri, M. (2010). Equilibrium headspace analysis of volatile flavour compounds extracted from soursop (*Annona muricata*) using solid phase microextraction. *Food Res. Int.*, **43**, 1267–1276.
- Chervin, C. and Boisseau, P. (1994). Quality maintenance of “ready-to-eat” shredded carrots by gamma irradiation. *J. Food Sci.*, **59**, 359–361.
- Cho, S.G., Lee, Y.H., Park, H.S., Ryoo, K., Kang, K.W. *et al.* (2001). Glutathione S-transferase mu modulates the stress-activated signals by suppressing apoptosis signal regulating kinase 1. *J Biol Chem.*, **276**, 12749–12755.
- Choi, C.W., Kim, S.C., Hwang, S.S., Choi, B.K., Ahn, H.J. and Lee, M.Y., *et al.* (2002). Antioxidant activity and free radical scavenging capacity between Korean medicinal plants and flavonoids by assay-guided comparison. *Plant Sci.*, **163**, 1161–1168.
- Clemens, D.L. and Jerrells, T.R. (2004). Ethanol consumption potentiates viral pancreatitis and may inhibit pancreas regeneration: Preliminary findings. *Alcohol.*, **33**, 183–189.
- Clifford, M.N. (1995). Understanding the biological effects of dietary complex phenols and tannins and their implications for the consumer’s health and well being. Report of the European project FAIR-CT95-0653. European Community Programme for Research, Technological Development and Demonstration in the field of Agriculture and Fisheries.
- Cooper, K.A., Chopra, M. and Thurnham, D.I. (2004). Wine polyphenols and promotion of cardiac health. *Nutr Res Rev.*, **17**, 111–129.
- Corral-Aguayo, R.D., Yahia, E.M., Carrilo-Lopez, A. and Gonzaaez-Aguilar, G. (2008). Correlation between some nutritional components and the total antioxidant capacity measured with six different assays in eight horticultural crops. *J Agri Food Chem.*, **56**, 10498–10504.
- Cos, P., Ying, L., Calomme, M., Hu, J.P., Cimanga, K., Van Poel, B., Pieters, L., Vlietinck, A.J. and Vanden Berghe, D. (1998). Structure-activity relationship and classification of flavonoids as inhibitors of xanthine oxidase and superoxide scavengers. *J. Nat. Prod.*, **61**, 71–76.
- Covas, M.I., Miro-Casas, E., Fito, M., Farre-Albadalejo, M., Gimeno, E., Marrugat, J. and De La Torre, R. (2003). Bioavailability of tyrosol, an antioxidant phenolic compound present in wine and olive oil, in humans. *Drugs Exp Clin. Res.*, **29**, 203–206.

- Crabb, D.W. (1997). First-pass metabolism of ethanol: Gastric or hepatic, mountain or molehill. *Hepatology.*, **25**, 1292–1294.
- Crawford, D.W. and Balakenhoan, D.H. (1991). Arterial wall oxygenation oxy radicals and atherosclerosis. *Atherosclerosis.*, **89**, 97–108.
- Crawford, L.M. and Ruff, E.H. (1996). A review of the safety of cold pasteurization through irradiation. *Food Contr.*, **7**, 87–97.
- Cui, J., Tosaki, A., Bertelli, A.A., Bertelli, A., Maulik, N. and Das, D.K. (2002a) Cardioprotection with white wine. *Drug Exp Clin Res.*, **28**, 1–10.
- Cui, J., Tosaki, A., Cordis, G.A., Bertelli, A.A., Bertelli, A., Maulik, N. and Das, D.K. (2002b) Cardioprotective abilities of white wine. *Ann NY Acad Sci.*, **957**, 308–316.
- Cul, J., Juhasz, B. and Tosaki, A. (2002). Cardioprotection with grapes. *J. Cardiovasc Pharmacol.*, **40**, 762–769.
- Czyhrinciwk, N. (1966). The technology of passion fruit and mango wines. *Am J Enol Vitic.*, **17**, 27–30.
- D’Innocenzo, M. and Lajolo, F.M. (2001). Effect of gamma irradiation on softening changes and enzymes activities during ripening of papaya fruit. *J. Food Biochem.*, **25**, 425–438.
- Da Luz, P.L., Serrano, J.R.C.V., Chacra, A.P., Monteiro, H.P., Yoshida, V.M., Furtado, M., Ferreira, S., Gutierrez, P. and Pileggi, F. (1999). The effect of red wine on experimental atherosclerosis: lipid-independent protection. *Exp and Mol Pathol.*, **65**, 150–159.
- Daher, CF., Slaiby, R., Haddad, N., Boustany, K., Baroody, GM. (2006). Effect of acute and chronic moderate red or white wine consumption on fasted and postprandial lipemia in the rat. *J. Toxicol Environ Health A.*, **69**, 1117–1131.
- Dahiru, D and Obidoa, O. (2008). Evaluation of the antioxidant effects of *Ziziphus Mauritiana* Lam. Leaf extracts against chronic ethanol-induced hepatotoxicity in rat liver. *Afr. J. Trad. CAM.*, **5**, 39 – 45.
- Dana, M.N. and David, L.D. (2005). The Role of Oxidative Stress in Diabetic Complications. *Cell Biochem Biophys.*, **43**, 289–330.
- Das, S.K. and Vasudevan, D.M. (2008). Alcohol induced effects on kidney. *Indian J. Clin Biochem.*, **23**, 4–9.
- Das, S.K., Sowmya, V., Dhanya, L., Mukherjee, S. and Vasudevan, D.M. (2008). Effects of chronic ethanol exposure on renal function tests and oxidative stress in kidney. *Indian J. Clin Biochem.*, **23**, 341–344.

- Day, C.P., James, O.F., Brown, A.S., Bennett, M.K., Fleming, I.N. and Yeaman, S.J. (1993). The activity of the metabolic form of hepatic phosphatidate phosphohydrolase correlates with the severity of alcoholic fatty liver in human beings. *Hepatology.*, **18**, 832–838.
- De Pooter, H.L., Montens, J.P., Dirinck, J., Willaert, G.A. and Schamp, N.M. (1983). Treatment of golden delicious apple with aldehydes and carboxylic acids: Effect on the headspace composition. *J. Agric. Food Chem.*, **37**, 813–818.
- Degenhardt, J. and Gershenzon, J. (2000). Demonstration and characterization of (*E*)-nerolidol synthase from maize: A herbivore-inducible terpene synthase participating in (*3E*)-4,8-dimethyl-1,3,7-nonatriene biosynthesis. *Planta.*, **210**, 815–822.
- Deleve, S.M. and Kaplowitz, N. (1990). Importance and regulation of hepatic glutathione, *Semin Liv Dis.*, **10**, 251–256.
- Deneke, S.M. (2001). Thiol-based antioxidants. *Curr Top Cell Regul.*, **36**, 151–180.
- Devlieghere, F., Vermeiren, L. and Debevere, J. (2004). New preservation technologies: Possibilities and limitations. *Int Dairy J.*, **14**, 273–285.
- Dharkar, S.D. and Sreenivasan, A. (1966). Irradiation of tropical fruits and vegetables, International Symposium on Food Irradiation; Karlsruhe (Germany, F.R.); 6 - 10 Jun 1966, IAEA; Vienna; 1966, P. 635-651.
- Dharmadhikari, M. (1996). Apple wine. *Vineyard and Vintage View*, **11**, 7–12.
- Di Luzio, N.R. (1963). Prevention of acute ethanol-induced fatty liver by antioxidants. *Physiologist.*, **6**, 169–173.
- Diehl, J.F. (1995). Biological effects of ionizing radiation. In: Diehl, J.F. (Ed.), *Safety of Irradiated Foods*, 2nd ed. Marcel Dekker, New York, pp 89–142.
- Dimmitt, S.B., Rakic, V., Puddey, I.B., Baker, R., Oostryck, R., Adams, M. J., Chesterman, C.N., Burke, V. and Beilin, L.J. (1998). The effects of alcohol on coagulation and fibrinolytic factors: a controlled trial. *Blood Coagul Fibrinol.*, **9**, 39–45.
- Dinu, D., Nechifor, M.T. and Movileanu, L. (2005). Ethanol-induced alterations of the antioxidant defense system in rat kidney. *J Biochem Mol Toxicol.*, **19**, 386–395.
- Dogan, A. and Celik, I. (2012). Hepatoprotective and antioxidant activities of grape seeds against ethanol-induced oxidative stress in rats. *Br J Nutr.*, **107**, 45–51.
- Dolara, P., Arrigucci, S., Cassetta, M.I., Fallani, S. and Novelli, A. (2005). Inhibitory activity of diluted wine on bacterial growth: the secret of water purification in antiquity. *Int J. Antimicrob Agents.*, **26**, 338–41.

- Domizio, P., Lencioni, L., Ciani, M., Blasi, S.D., Pontremolesi, C. And Sabatelli, M.P. (2007). Spontaneous and inoculated yeast populations dynamics and their effect on organoleptic characters of Vinsanto wine under different process conditions. *Int J Food Microbiol.*, **115**, 281–289.
- Duarte, W.F., Dias, D.R., de Melo-Pereira, G.V., Gervasio, I.M. and Schwan, R.F. (2009). Indigenous and inoculated yeast fermentation of gabiropa (*Campomanesia pubescens*) pulp for fruit wine production. *J Ind Microbiol Biotechnol.*, **36**, 557–569.
- Dudareva, N., Andersson, S., Orlova, I., Gatto, N., Reichelt, M. and Rhodes, D. (2005). The nonmevalonate pathway supports both monoterpene and sesquiterpene formation in snapdragon flowers. *Proc. Natl. Acad. Sci.*, **102**, 933–938.
- Dudareva, N., Pichersky, E. and Gershenzon, J. (2004). Biochemistry of plant volatiles. *Plant Physiol.*, **135**, 1893–1902.
- Dufour, J.P., Malcorps, P. and Silcock, P. (2003). Control of ester synthesis during brewery fermentation. In: *Brewing Yeasts Fermentation Performance*, K. Smart, Ed., Blackwell Science Ltd.: Oxford, U.K., Pp. 213–233.
- Dulhunty, A., Gage, P., Curtis, S., Chelvanayagam, G. and Board, P. (2001). The glutathione transferase structural family includes a nuclear chloride channel and a ryanodine receptor calcium release channel modulator. *J Biol Chem.*, **276**, 3319–3323.
- Durak, I., Cimen, M.Y., Buyuklocat, S., Kacmaz, M., Omeroglu, E. and Ozturk, H. (1999). The effect of red wine on blood antioxidant potential. *Curr Med Res Opin.*, **15**, 208–213.
- Dzogbefia, V.P. and Djokoto, D.K. (2006). Combined effects of enzyme dosage and reaction time on papaya juice extraction with the aid of pectic enzymes – A preliminary report. *J. Food Biochem.*, **30**, 117–122.
- Edwards, C.G. and Jensen, K.A. (1992). Occurrence and characterization of lactic acid bacteria from Washington state wine: *Pediococcus* spp. *Am. J. Vitic. Enol.*, **43**, 233–238.
- Edwards, C.G., Hacy, K.M. and Collins, M.D. (1998). Identification and characterization of two lactic acid bacteria associated with sluggish/stuck fermentation. *Am J Enol Vitic.*, **43**, 445–448.
- El Ansari, M.A., Reddy, K.K., Sastry, K.N.S. and Nayudamma, Y. (1971). Polyphenols of *Mangifera indica*. *Phytochem.*, **10**, 2239–2241.
- El-Anany, A.M. and Ali, R.F.M. (2013). Biochemical and histopathological effects of administration various levels of Pomposia (*Syzygium cumini*) fruit juice as natural antioxidant on rat health. *J Food Sci Technol.*, **50**, 487–495.

- El-Samahy, S.K., Youssef, B.M., Askar, A.A. and Swailam, M.H. (2000). Microbiological and chemical properties of irradiated mango. *J. Food Safety.*, **20**, 139–156.
- El-Sayed Mostafa, U. (2013). Phenolic compounds and antioxidant potential of mango peels and kernels (*Mangifera indica L.*) on the frying oil stability, lipid profile and activity of some antioxidant serum enzymes in rats. *J. American Sci.*, **9**, 371–378.
- Enas, E.A. and Mehta, J. (1995). Malignant coronary artery disease in young asian indians: Thoughts on pathogenesis, prevention, and therapy. *Clin Cardiol.*, **18**, 131–135.
- Engel, K. H. and Tressl, R. (1983). Studies on the volatile components of two mango varieties. *J. Agric. Food Chem.*, **31**, 796–801.
- Engel, K.H., Flath, R.A., Buttery, R.G., Mon, T.R., Ramming, D.W. and Teranishi, R. (1988). Investigation of volatile constituents of aroma components in some nectarine cultivars. *J. Agric. Food Chem.*, **36**, 549–553.
- Epifanio, S.I., Gutierrez, A.R., Santamaria, M.P. and Lopez, R. (1999). The influence of enological practices on the selection of wild yeast strains in spontaneous fermentation. *Am J Enol Vitic.*, **50**, 219–224.
- Esmailzadeh, A. and Azadbakht, L. (2008). Food intake patterns may explain the high prevalence of cardiovascular risk factors among Iranian women. *J. Nutr.*, **138**, 1469–1475.
- Esteve, M.J. and Frigola, A. (2007). Refrigerated fruit juices: quality and safety issues. In Taylor, S.L. (Ed). *Advances in food and nutrition research*, Elsevier Inc. USA, P.p. 104–132.
- Etievant, P.X. (1991). Wine. In H. Maarse (Ed.), *Volatile Compounds in Food and Beverages*. New York: Marcel Dekker.
- Falchi, M., Bertelli, A., Lo Scalzo, R., Morassut, M., Morelli, R., Das, S., Cui, J. and Das, D.K. (2006). Comparison of cardioprotective abilities between the flesh and skin of grapes. *J Agric Food Chem.*, **54**, 6613–6622.
- Fan, X. and Sokorai, K.J.B. (2002). Changes in volatile compounds of γ -irradiated fresh cilantro leaves during cold storage. *J. Agric. Food Chem.*, **50**, 7622–7626.
- Fan, X., Niemera, B.A., Mattheis, J.P., Zhuang, H. and Olson, D.W. (2005). Quality of fresh cut apple slices as affected by low-dose ionizing radiation and calcium ascorbate treatment. *J. Food Sci.*, **70**, 143–148.

- Fang, C., Lindros, K.O., Badger, T.M., Ronis, J.J. and Ingelman–Sundberg, M. (1998). Zonated expression of cytokines in rat liver: effect of chronic ethanol and cytochrome P4502E1 inhibitor, chlormethiazole. *Hepatology*, **27**, 1304–1310.
- Farkas, J. (1998). Irradiation as a method for decontaminating food. A review. *Int J Food Microbiol.*, **44**, 189–204.
- Fernandez–Checa, J.C. and Kaplowitz, N. (2005). Hepatic mitochondrial glutathione: transport and role in disease and toxicity. *Toxicol Appl Pharmacol.*, **204**, 263–273.
- Feussner, I. and Wasternack, C. (2002). The lipoxygenase pathway. *Annu. Rev. Plant Biol.*, **53**, 275–297.
- Fisher, C. and Scott, T.T. (1997). *Food Flavours: Biology and Chemistry*; The Royal Society of Chemistry: Hunt Valley, MD.
- Fleet, G. (2008). Wine yeasts for the future. *FEMS Yeast Res.*, **8**, 979–995.
- Flohe, L. (1971). Glutathione peroxidation in vitamin E deficient rat liver homogenate. *Arch Biochem Biophys.*, **97**, 51–58.
- Fogliano, V., Verde, V., Randazzo, G. and Rittieni, A. (1999). Method for measuring antioxidant activity and its application to monitoring the antioxidant capacity of wines. *J Agric Food Chem.*, **47**, 1035–1040.
- Foster, L.B. and Dunn, R.T. (1973). Stable reagents for determination of serum triglycerides by colorimetric condensation method. *Clin Chem.*, **19**, 338–340.
- Frankel, E.N., Kanner, J., German, G.B., Parks, E. and Kinsella, J.E. (1993a). Inhibition of oxidation of human lowdensity lipoprotein by phenolic substances in red wine. *Lancet*, **341**, 454–457.
- Frankel, E.N., Waterhouse, A.L. and Kinsella, J.E. (1993b). Inhibition of human LDL–C oxidation by resveratrol. *Lancet*, **341**, 1103–1104.
- Friedwald, W.T., Levy, R.I. and Fredrickson, D.S. (1972). Estimation of the concentration of LDL–cholesterol in plasma without the use of the preparative ultracentrifuge. *Clin Chem.*, **18**, 499–502.
- Fugelsang, K.C. (1997). In K.C. Fugelsang, ed., *Wine Microbiology*. New York: Chapman and Hall.
- Fuhrman, B. and Aviram, M. (2002). Preservation of paraoxenase activity by wine flavonoids–possible role in protection of LDL from lipid peroxidation. Alcohol and wine in health and disease. *Ann NY Acad Sci.*, **957**, 321–324.

- Fuhrman, B., Lavy, A. and Aviram, M. (1995). Consumption of red wine meals reduces the susceptibility of human plasma and low-density lipoprotein to lipid peroxidation. *Am J Clin Nutr.*, **61**, 549–554.
- Fuhrman, B., Volkova, N. and Aviran, M. (2010). Pomegranate juice polyphenols increase recombinant paraoxonase-1 binding to high-density lipoprotein: studies in vitro and in diabetic patients. *Nutrition*, **26**, 359–66.
- Gandhi, N.M. and Nair, C.K.K. (2005). Protection of DNA and membrane from gamma radiation induced damage by gallic acid. *Mol Cell Biochem.*, **278**, 111–117.
- Gang, D.R. (2005). Evolution of flavors and scents. *Annu. Rev. Plant Biol.*, **56**, 301–325.
- García-Ruiz, C., Colell, A., Paris, R. and Fernández-Checa, J.C. (2000). Direct interaction of GD3 ganglioside with mitochondria generates reactive oxygen species followed by mitochondrial permeability transition, cytochrome c release and caspase activation. *FASEB J.*, **14**, 847–850.
- García-Ruiz, C., Morales, A., Ballesta, A., Rhodes, J., Kaplowitz, N. and Fernández-Checa, J.C. (1994). Effect of chronic ethanol feeding on glutathione and functional integrity of mitochondria in periportal and perivenous rat hepatocytes. *J. Clin Invest.*, **94**, 193–201.
- Garg, M. and Bansal, DD. (2000). Protective antioxidant effect of vitamin C and vitamin E in streptozotocin induced diabetic rats. *Ind. J. Exper. Biol.*, **28**, 101–104.
- Gaziano, J.M., Buring, J.E., Breslow, J.I., Goldhaber, S.Z., Rosner, B., Van Denburgh, M., Willett, W., Hennekens, C.H. (1993). Moderate alcohol intake, increased levels of high-density lipoproteins and its subfraction and decreased risk of myocardial infarction. *New Engl J Med.*, **329**, 1829–1834.
- Genovese, D.B., Elustondo, M.P. and Lozano, J.E. (1997). Color and cloud stabilization in cloudy apple juice by steam heating during crushing. *J Food Sci.* **62**, 1171–1175.
- Georgina, EO., Kingsley, O., Esosa, US., Helen, NK., Frank, AO. and Anthon, OC. (2011). Comparative evaluation of antioxidant effects of watermelon and orange, and their effects on some serum lipid profile of Wister albino rats. *Int J. Nutr Metabol.*, **3**, 97–102.
- German, J.B. and Walzem, R.L. (2000). The health benefit of wine. *Annu Rev Nutr.*, **20**, 561–593.
- Gholap, A.S. and Bandyopadhyay, C. (1977). Characterization of green aroma of raw mango (*Mangifera indica* L.). *J. Sci. Food Agric.*, **28**, 885–888.

- Giao, M.S., Gonzalez–Sanjose, M.L., Rivero–Perez, M.D., Pereira, C.I., Pintado, M.E. and Malcata, F.X. (2007). Infusions of Portuguese medicinal plants: Dependence of final antioxidant capacity and phenolic content on extraction features. *J Agric Food Chem.*, **87**, 2638–2647.
- Gil, M.I., Aguayo, E. and Kader, A.A. (2006). Quality changes and nutrient retention in fresh-cut versus whole fruits during storage. *J Agric Food Chem.*, **54**, 4284–4296.
- Gill, A., Joshi, V.K. and Rana, N. (2009). Evaluation of preservation methods of low alcoholic plum wine. *Nat Prod Rad.*, **8**, 392–405.
- Girre, C., Lucas, D., Hispard, E., Menez, C., Dally, S. and Menez, J.F. (1994). Assessment of cytochrome P4502E1 induction in alcoholic patients by chlozoxazone pharmacokinetics. *Biochem Pharmacol.*, **47**, 1503–1508.
- Goepfert, S. and Poirier, Y. (2007). β –Oxidation in fatty acid degradation and beyond. *Curr. Opin. Plant Biol.*, **10**, 245–251.
- Goff, S.A. and Klee, H.J. (2006). Plant volatile compounds: Sensory cues for health and nutritional value. *Science.*, **311**, 815–819.
- Goldberg, D.M. and Kapur, B.M. (1994). Enzymes and circulating proteins as markers for abuse. *Clin Chim Acta.*, **226**, 191–209.
- Goldberg, D.M., Tsang, E., Karumanchiri, A., Diamandis, E.P., Soleas, G. and Ng, E. (1996). Method to assay the concentrations of phenolic constituents of biological interest in wines. *Analytica Chimica Acta.*, **68**, 1688–1694.
- Goldfinger, T.M. (2003). Beyond the French paradox: the impact of moderate beverage alcohol and wine consumption in the prevention of cardiovascular disease. *Cardiology Clinics.*, **21**, 449–457.
- Gorinstein, S., Caspi, A., Goshev, I., Aksu, S., Salnikow, J., Scheler, C., Delgado–Licon, E., Rosen, A., Weisz, M., Libman, I. and Trakhtenberg, S. (2003). Structural changes in plasma circulating fibrinogen after moderate beer consumption as determined by electrophoresis and spectroscopy. *J Agric Food Chem.*, **51**, 822–827.
- Gorinstein, S., Caspi, A., Pawelzik, E., Delgado–Licon, E., Libman, I., Trakhtenberg, S., Weisz, M. and Martin–Belloso, O. (2001). Protein of beer affect lipid levels in rats. *Nutr Res.*, **21**, 1159–1169.
- Gorinstein, S., Zemser, M., Lichman, I., Berebi, A., Kleipfish, A., Libman, I., Trakhtenberg, S. and Caspi, A. (1997). Moderate beer consumption and the blood coagulation in patients with coronary artery disease. *J Intern Med.*, **241**, 47–51.

- Grant, I.R. and Patterson, M.F. (1992). Sensitivity of food borne pathogens to irradiation in the components of chilled ready meals. *Food Microbiol.*, **9**, 95–103.
- Greenrod, W., Stockley, C.S., Burcham, P., Abbey, M. and Fenech, M. (2005). Moderate acute intake of de alcoholised red wine, but not alcohol, is protective against radiation–induced DNA damage ex vivo – Results of a comparative in vivo intervention study in younger men. *Mutat Res.*, **591**, 290–301.
- Groat, M. and Ough, C.S. (1978). Effects of insoluble solids added to clarified musts on fermentation rate, wine composition and wine quality. *Am J Enol Vitic.*, **29**, 112–119.
- Gronbaeck, M., Deis, A., Sbremsen, T.I.A., Becker, U., Schnohr, P. and Jensen, G., (1995). Mortality associated with moderate intakes of wine, beer or spirits. *Br Med J.*, **310**, 1165–1169.
- Gronbaek, M., Deis, A., Sorensen, T.I.A., Becker, U., Schnohr, P. and Jensen, G. (1995). Mortality associated with moderate intakes of wine, beer, or spirits. *Brit Med J.*, **310**, 1165–1169.
- Guadagni, D.G., Bomben, J.L. and Hudson, J.S. (1971). Factors influencing the development of aroma in apple peel. *J. Sci. Food Agric.*, **22**, 110–115.
- Guerrie, C., Montoliu, C. and Renau–Pigueras, J. (1994). Involvement of free radical mechanism in the toxic effects of alcohol: Implications for fetal alcohol syndrome. *Adv Exp Med Biol.*, **366**, 291–305.
- Guerrieri, F., Vendimiale, G., Grattagliano, I., Cocco, T., Pellicchia, G. and Altomare, E. (1999). Mitochondrial oxidative alterations followin partial hepatectomy. *Free Rad Biol Med.* **32**, 487–491.
- Gutierrez–Salinas, J. and Morales–Gonzalez, J.A. (2004). Production of oxygen–derived free radicals and damage to the hepatocyte. *Med Int Mex.*, **20**, 287–295.
- Gutierrez–Salinas, J., Miranda–Garduno, L., Trejo–Izquierdo, E., Diaz–Munoz, M., Vidrio, S., Morales–Gonzalez, J.A. and Hernandez–Munoz R. (1999). Redox state and energy metabolism during liver regeneration. Alterations produced by acute ethanol administration. *Biochem Pharmacol.*, **58**, 1831–1839.
- Gutteridge, J.M.C. (1995). Lipid peroxidation and antioxidant biomarkers of tissue damage. *Clin Chem.*, **41**, 1819–1828.
- Guvén, A. and Kaya, N. (2005). Determination of Reduced Glutathion, Glutathione–S–Transferase and selenium levels in goose liver cells with damage induced by carbon tetrachloride and ethanol. *Turk J Vet Anim Sci.*, **29**, 1233–1238.

- Gyawali, R., Seo, H.Y., Lee, H.J., Song, H.P., Kim, D.H., Byun, M.W. and Kim, K.S. (2006). Effect of gamma irradiation on volatile compounds of dried Welsh onion (*Allium fistulosum* L.). *Radiat. Phys. Chem.*, **75**, 322–328.
- Habig, W.H, Pabst, M.J. and Jakoby, W.B. (1974). Glutathione–S–transferase, the first enzymatic step in mercapturic acid formation. *J Biol Chem.*, **249**, 7130–7139.
- Hagerman, A.E., Riedl, K.M., Jones, G.A., Sovik, K.N., Ritchard, N.T. and Hartzfeld, P.W. (1998). High molecular weight plant polyphenolics (tannins) as biological antioxidants. *J. Agric. Food Chem.*, **46**, 1887–1892.
- Hall, S.S. (2003) Longevity research. In vino vitalis? Compounds activate life extending genes. *Science.*, **301**, 1165–1165.
- Halliwell, B. (1996). Antioxidants in human health and disease. *Annu Rev Nutr.*, **16**, 33–50.
- Halliwell, B. (2000). The antioxidant paradox. *The Lancet*, **355**, 1179–1180.
- Halliwell, B. and Gutteridge, J.M.C. (1999). *Free Radicals in Biology and Medicine*. 3rd Edn. Oxford University Press, New York. pp. 23–27.
- Halliwell, B., Aeschbach, R., Loligger, J. and Aruoma, O.I. (1995). The characterization of antioxidants. *Food and Chemical Toxicol.*, **33**, 601–617.
- Halliwell, B., Gutteridge, J.M. and Cross, C.E. (1992). Free radicals, antioxidants, and human disease: where are we now? *J Clin Lab Med.*, **119**, 598–620.
- Handler, J.A. and Thurman, R.G. (1990). Redox interactions between catalase and alcohol dehydrogenase pathways of ethanol metabolism in the perfused rat liver. *J. Biol Chem.*, **265**, 1510–1515.
- Harder, M.N.C., De–Toledo, T.C.F., Ferreira, A.C.P. and Arthur, V. (2009). Determination of changes induced by gamma radiation in nectar of kiwi fruit (*Actinidia deliciosa*). *Radiat. Phys. Chem.*, **78**, 579–582.
- Harder, M.N.C., Silva, L.A.C.S., Pires, J.A., Scanholato, M. and Arthur, V. (2013). Physical–chemical evaluation of wines subjected to gamma irradiation for aging. *Food sci technol.*, **1**, 62–65.
- Harper, H.A. (1961). *The functions and tests of the liver. Review of physiological chemistry*. Lange Medical Publishers, Los Atlos, CA, pp. 271–283.
- Harrison, K. and Were, L.M. (2007). Effect of gamma irradiation on total phenolic content yield and antioxidant capacity of almond skin extracts. *Food Chem.*, **102**, 932–937.

- Hashimoto, Y., Futamura, A., Nakarai, H. and Nakahara, K. (2001). Effect of the frequency of alcohol intake on risk factors for coronary heart disease. *Eur J Epidemiol.*, **17**, 307–312.
- Hasib, A., Jaouad, A., Mahrouz, M. and Khouili, M. (2002). HPLC determination of organic acids in Moroccan apricot. *Cienc. Tecnol. Aliment.*, **3**, 207–211.
- Hatano, S., Jimenez, A. and Wargowich, M.J. (1996). Chemopreventive effect of S-allylcysteine and its relationship to the detoxification enzyme glutathione S-transferase. *Carcinogenesis.*, **17**, 1041–1044.
- Hattori, R., Otani, H., Maulik, N. and Das, D.K. (2002). Pharmacological preconditioning with resveratrol: role of nitric oxide. *Am J Physiol Heart Circ Physiol.*, **282**, 1988–1995.
- Heard, G.M. and Fleet, G.H. (1986). Occurrence and growth of yeast species during the fermentation of some Australian wines. *Food Technol. Aust.*, **38**, 22–25.
- Heinecke, J.W. (2006). Lipoprotein oxidation in cardiovascular disease: chief culprit or innocent bystander. *J. Exp Med.*, **203**, 813–816.
- Henick-Kling, T., Ediger, W.D., Daniel, P. and Monk, P. (1998). Selective effects of sulfur dioxide and yeast starter culture addition on indigenous yeast populations and sensory characteristics of wine. *J Appl Microbiol.*, **84**, 865–876.
- Henscheke, P.A. and Jiranek, V. (1993). Yeast metabolism of nitrogen compounds. In: Fleet GH, editor. *Wine microbiology and biotechnology*. Harwood Academic Publishers. Chur, Switzerland, Pp. 77–163.
- Henshall, A. (1998). Liquid-chromatographic techniques for detecting economic adulteration of foods. *Cereal foods world.*, **43**, 98–103.
- Hernandez-Orte, P., Bely, M., Cacho, J. and Ferreira, V. (2006). Impact of ammonium additions on volatile acidity, ethanol, and aromatic compounds production by different *Saccharomyces cerevisiae* strains during fermentation in controlled synthetic media. *Aust J Grape Wine Res.*, **12**, 150–160.
- Hernandez-Orte, P., Ibarz, M.J., Cacho, J. and Ferreira, V. (2005). Effect of the addition of ammonium and amino acids to musts of *Airen* variety on aromatic composition and sensory properties of the obtained wine. *Food Chem.*, **89**, 163–164.
- Herraiz, T., Martin-Alvarez, P.J., Reglero, G., Herraiz, M. and Cabezudo, M.D. (1989). Differences between wines fermented with and without SO₂ using various selected yeasts. *J Sci Food Agric.*, **49**, 249–258.

- Hetu, C. and Joly, J.G. (1985). Differences in the duration of the enhancement of liver mixed-function oxidase activities in ethanol-fed rats after withdrawal. *Biochem. Pharmacol.*, **34**, 1211–1216.
- Hewawasam, R.P., Jayatilaka, K.A.P.W., Pathirana, C. and Mudduwa, L.K.B. (2004). Hepatoprotective effect of *Epaltes divaricata* extract on carbon tetrachloride induced hepatotoxicity in mice. *Ind J Med Res.*, **120**, 30–34.
- Hidalgo, P. and Flores, M. (1994). Occurrence of the killer character in yeasts associated with Spanish wine production. *Food Microbiol.*, **11**, 161–167.
- Hines, L.M. and Rimm, E.B. (2001). Moderate alcohol consumption and coronary heart disease: a review. *Postgrad Med J.*, **77**, 747–752.
- Hirano, T., Kaplowitz, N., Kamimura, T., Tsukamoto, H. and Fernandez-Checa, J.C. (1992). Hepatic mitochondrial GSH depletion and progression of experimental alcoholic liver disease in rats. *Hepatology*, **16**, 1423–1428.
- Hoek, J.B., Cahill, A. and Pastorino, J.G. (2002). Alcohol and mitochondria: a dysfunctional relationship. *Gastroenterology*, **122**, 2049–2063.
- Hoek, J.B., Taraschi, T.F. and Robin, A., (1988). Functional implications of the interaction of ethanol with biologic membranes: Actions of ethanol on hormonal signal transduction systems. *Semin Liv Dis.*, **8**, 36–46.
- Hooper, D., Spitsin, S., Kean, R., Champion, J., Dickson, G. and Chaudhry, I. (1998). Uric acid, a natural scavenger of peroxynitrite, in experimental allergic encephalomyelitis and multiple sclerosis. *Proc Natl Acad Sci.*, **95**, 675–680.
- Howell, K.S., Cozzolino, D., Bartowsky, E.J., Fleet, G.H. and Henschke, P.A. (2006). Metabolic profiling as a tool for revealing *Saccharomyces* interactions during wine fermentation. *FEMS Yeast Res.*, **6**, 91–101.
- Hua, F.M., Chen, Q.F., Yu, Y.T. and Huang, L.G. (1989). Acceleration of yellow rice wine mellowness by cobalt ray. *Acta Agriculture Nucleatae Sinica.*, **3**, 178–186.
- Husain, K. and Somani, S.M. (1997). Interaction of exercise training and chronic ethanol ingestion on hepatic and plasma antioxidant system in rat. *J. Appl toxicol.*, **17**, 189–194.
- Husain, K., Scott, B.R., Reddy, S.K. and Somani, S.M. (2001). Chronic ethanol and nicotine interaction on rat tissue antioxidant defense system. *Alcohol*, **25**, 89–97.
- Hussain, P.R., Wani, A.M., Meena, R.S. and Dar, M.A. (2010). Gamma irradiation induced enhancement of phenylalanine ammonia-lyase (PAL) and antioxidant activity in peach (*Prunus persica* Bausch, Cv. Elberta). *Radiat. Phys. Chem.*, **79**, 982–989.

- Hussein, S.Z., Yusoff, K.M., Makpol, S. and Yusof, Y.A.M. (2011). Antioxidant capacities and total phenolic contents increase with gamma irradiation in two types of Malaysian honey. *Molecules.*, **16**, 6378–6395.
- Ibanez, E., Lopez–Sebastian, S., Ramos, E., Tabera, J. and Reglero, G. (1998). Analysis of volatile fruit components by headspace solid–phase microextraction. *Food Chem.*, **63**, 281–286.
- Ighodaro, O.M. and Omole, J.O. (2012). Ethanol–induced hepatotoxicity in male wistar rats: Effects of aqueous leaf extract of *Ocimum gratissimum*. *J. Med Med Sci.*, **3**, 499–505.
- Iijima, Y., Wang, G., Fridman, E. and Pichersky, E. (2006). Analysis of the enzymatic formation of citral in the glands of sweet basil. *Arch. Biochem. Biophys.*, **448**, 141–149.
- Ioannou, G.N., Dominitz, J.A., Weiss, N.S., Haegerty, P.J. and Wowdley, K.V. (2004). The effect of alcohol consumption on the prevalence of iron overload, iron deficiency and iron deficiency anemia. *Gastroenterology*, **126**, 1293–1301.
- Iriti, M. and Faoro, F. (2006). Grape phytochemicals: a bouquet of old and new nutraceuticals for human health. *Med Hypotheses*, **67**, 833–838.
- Irving, M.G., Halliday, J.W. and Powell, L.W. (1988). Association between alcoholism and increased hepatic iron store. *Alcohol Clin ExpRes.*, **12**, 7–12.
- Isabelle, V.O., Suzy, C.M.V., Elke, Y.W., Barbara, M. and Chris, W.M. (2004). Inactivation of *Escherichia coli* by high hydrostatic pressure at different temperature in buffer and carrot juice. *Int. J. Food Microbiol.*, **98**, 179–191.
- Israel, Y., Orrego, H. and Carmichael, F.J. (1994). Acetate–mediated effects of ethanol. *Alcohol Clin Exp Res.*, **18**, 144–148.
- Jagtap, U.B., Waghmare, S.R., Lokhande, V.H., Suprasanna, P. and Bapat, V.A. (2011). Preparation and evaluation of antioxidant capacity of Jackfruit (*Artocarpus heterophyllus* Lam.) wine and its protective role against radiation induced DNA damage. *Ind Crop Prod.*, **34**, 1595–1601.
- Jain, N.L., Krishnamurthy, G.V. and Lal, G.C. (1959). Non–volatile organic acids in unripe pickling mangoes and salted mango slices by paper chromatography. *Food Sci.*, **3**, 115–118.
- Jain, S.K. (1985). In vivo externalization of phosphatidyl serine and phosphatidyl ethanolamine in the membrane bilayer and hypercoagulability by the lipid peroxidation of erythrocytes in rats. *J. Clin. Invest.*, **76**, 281–286.

- Jamroz, A. and Beltowski, J. (2001). Antioxidant capacity of select wines. *Med Sci Monit.*, **7**, 1198–1202.
- Javadov, S., Choi, A., Rajapurohitam, V., Zeidan, A., Basnakian, A.G. and Karmazyn, M. (2008). NHE-1 inhibition–induced cardioprotection against ischaemia/reperfusion is associated with attenuation of the mitochondrial permeability transition. *Cardio Vasc Res.*, **77**, 416–424.
- Jayaprakasha, G.K. and Patil, B.S. (2007). *In vitro* evaluation of the antioxidant activities in fruit extracts from citron and blood orange. *Food Chem.*, **101**, 410–418.
- JeanDET, P., Bessis, R., Sbaghi, M., Meunier, P. and Trollat, P. (1995). Resveratrol content of wines of different ages: relationship with fungal disease pressure in the vineyard. *Am J Enol Vitic.*, **46**, 1–4.
- Jenkins, R.R. and Goldfarb, A. (1993). Introduction: oxidative stress, aging and exercise. *Med Sci Sports Exerc.*, **25**, 210–212.
- Jennings, W.G. and Tressl, R. (1974). Production of volatile compounds in the ripening of ‘Bartlett’ pear. *Chem. Mikrobiol. Technol. Lebensm.*, **3**, 52–55.
- Jensen, J.E. and Freese, D. (2009). Liver Function Tests. Colorado Center for Digestive disorders 205s. Suite A Longmont Co. 80501. Pp 151–163.
- Jew, S., AbuMweis, S.S. and Jones, P.J. (2009). Evolution of the human diet: linking our ancestral diet to modern functional foods as a means of chronic disease prevention. *J Med Food.*, **12**, 925–934.
- Jia, M., Zhang, Q.H. and Min, D.B. (1998). Optimization of solidphase microextraction analysis for headspace flavor compounds of orange juice. *J Agri Food Chem.*, **46**, 2744–2747.
- Jin–ying, G., Hua, L., Hua, W., Chun–long, Y., and Ren–ming, X. (2007). The influence of red wine on lipid of golden hamsters plasma. *Agric Sci China.*, **6**, 996–1001.
- Jo, C. and Ahn, D.U. (2000). Production of volatile compounds from irradiated oil emulsion containing amino acids or proteins. *J. Food Sci.*, **65**, 612–616.
- Jo, C., Son, J.H., Lee, H.J. and Byun, M.W. (2003) Irradiation application for color removal and purification of green tea leaves extract. *Radiat. Phys. Chem.*, **66**, 179–184.
- Jo, C., Ahn, D.U. and Lee, K.H. (2012). Effect of gamma irradiation on microbiological, chemical, and sensory properties of fresh ashitaba and kale juices. *Radiat. Phys. Chem.*, **81**, 1076–1078.

- Johansson, A.S. and Mannervik, B. (2001). Human glutathione-S-transferase A3-3, a highly efficient catalyst of double-bond isomerization in the biosynthetic pathway of steroid hormones. *J Biol Chem.*, **276**, 33061–33065.
- John, K.S., Bhat, S.G. and Rao, U.J.S.P (2003). Biochemical characterization of sap (latex) of few Indian mango varieties. *Phytochem.*, **62**, 13–19.
- John, K.S., Rao, L.J.M., Bhat, S.G. and Rao, U.J.S.P. (1999). Characterization of aroma components of sap from different Indian mango varieties. *Phytochem.*, **52**, 891–894.
- John, O.R., Yahaya, A.A. and Emmanuel, A. (2012). Aqueous Ethanolic Extract of *Mangifera indica* Stem Bark Effect on the Biochemical and Haematological Parameters of Albino Rats. *Arch Appl Sci Res.*, **4**, 1618–1622.
- Joly, J.G. and Hetu, C. (1975). Effects of chronic ethanol administration in the rat: relative dependency on dietary lipids. *Biochem. Pharmacol.*, **124**, 1475–1480.
- Junnila, M., Rahko, T., Sukura, A. and Lindberg, L.A. (2000). Reduction of carbon tetrachloride-induced hepatotoxic effects by oral administration of betane in male Han-Wistar rats: a morphometric histological study. *Vet. Pathol.*, **37**, 231–238.
- Kader, A.A. (2002). Quality and safety factors: Definition and evaluation for fresh horticultural crops. Postharvest technology of horticultural crops. University of California, pp. 279–285.
- Kakkar, P., Das, B. and Viswanathan, P.N. (1984). A modified spectrophotometric assay of Superoxide dismutase. *Ind J Biochem Biophys.*, **21**, 130–132.
- Kamimura, S., Gall, K., Britton, S.R., Bacon, B.R., Triadafilopulos, G. and Tsukamoto, H. (1992). Increased 4-hydroxynonenal levels in experimental alcoholic liver disease: Association of lipid peroxidation with liver fibrogenesis. *Hepatology*, **16**, 448–453.
- Kanaoka, Y., Ago, H., Inagaki, E., Nanayama, T., Miyano, M. *et al.* (1997). Cloning and crystal structure of hematopoietic prostaglandin D synthase. *Cell*, **90**, 1085–1095.
- Kannel, W. and Ellioson, C., (1996). Alcohol and coronary heart disease: the evidence for a protective effect. *Clin Chim Acta.*, **246**, 59–76.
- Kapitulnik, J., Horner-Mibashan, R., Blondheim, S.H., Kaufmann, N.A. and Russell, A. (1975). Increase in bilirubin-binding affinity of serum with age of infant. *J pediatrics*, **86**, 442–445.
- Karmazin, M., Uchytlova, H. and Ludva, J. (1998). Decontamination of tannin drugs with ionizing radiation. *Cesk. Farm.*, **37**, 295–299.

- Katalinic, V., Milos, M., Modun, D., Music, I. and Boban, M. (2004). Antioxidant effectiveness of selected wines in comparison with (+)-catechin. *Food Chem.*, **86**, 593–600.
- Katyal, R., Saroch, N., Bharat Bhushan. A.K. (2012). Alcohol and periodontal health in adolescence. *SRM J. Res Dent Sci.*, **3**, 257–263.
- Kawase, T., Kato, S. and Lieber, C.S. (1989). Lipid peroxidation and antioxidant defense systems in rat liver after chronic ethanol feeding. *Hepatology*, **10**, 815–821.
- Keevil, J.G., Osman, H.E., Reed, J.D. and Folts, J.D. (2000). Grape juice, but not orange juice or grapefruit juice, inhibits human platelet aggregation. *J Nutr.*, **130**, 53–56.
- Kerem, R.C. and Koren, G. (2003). Antioxidants and fetal protection against ethanol teratogenicity. I. Review of the experimental data and implications to humans, *Neurotoxicol Teratol.*, **25**, 1–9.
- Kessova, I.G., Ho, Y.S., Thung, S. and Cederbaum, A.I. (2003). Alcohol-induced liver injury in mice lacking Cu, Zn-superoxide dismutase. *Hepatology*, **38**, 1136–1145.
- Khattak, K.F., Simpson, T.J. and Ihasnullah. (2009). Effect of gamma irradiation on the microbial load, nutrient composition and free radical scavenging activity of *Nelumbo nucifera* rhizome. *Radiat. Phys. Chem.*, **78**, 206–212.
- Kilcast, D. (1994). Effect of irradiation on vitamins. *Food Chem.*, **49**, 157–164.
- Kim, D., Song, H., Lim, S., Yun, H. and Chung, J. (2007). Effects of gamma irradiation on the radiation-resistant bacteria and polyphenol oxidase activity in fresh kale juice. *Radiat. Phys. Chem.*, **76**, 1213–1217.
- Kim, H., Moon, J.Y., Kim, H., Lee, D.S., Cho, M., Choi, H.K., Kim, Y.S., Mosaddik, A. and Cho, S.K. (2010). Antioxidant and antiproliferative activities of mango (*Mangifera indica* L.) flesh and peel. *Food Chem.*, **121**, 429–436.
- Kim, J.H., Ahn, H.J., Yook, H.S., Kim, K.S., Rhee, M.S., Ryu, G.H. and Byun, M.W. (2004). Color, flavor, and sensory characteristics of gamma-irradiated salted and fermented anchovy sauce. *Radiat. Phys. Chem.*, **69**, 179–187.
- Kim, J.H., Shin, M.H., Hwang, Y.J., Srinivasan, P., Kim, J.K., Park, H.J., Byun, M.W. and Lee, J.W. (2009). Role of gamma irradiation on the natural antioxidants in Cumin seeds. *Radiat Phys Chem.*, **78**, 153–157.
- Kim, J.K., Jo, C., Hwang, H.J., Park, H.J., Kim, Y.J. and Byun, M.W. (2006). Color improvement by irradiation of *Curcuma aromatica* extract for industrial application. *Radiat. Phys. Chem.*, **75**, 449–452.

- Kim, K.H. and Yook, H.S. (2009). Effect of gamma irradiation on quality of kiwifruit (*Actinidiadeliciosa* var. *deliciosa* cv. Hayward). *Radiat. Phys. Chem.*, **78**, 414–421.
- Kim, M. (2005). High-methoxyl pectin has greater enhancing effect on glucose uptake in intestinal perfused rats. *Nutrition.*, **21**, 372–377.
- Kim, S.H., Cho, S.K., Min, T.S., Kim, Y., Yang, S.O., Kim, H.S., Hyun, S.H., Kim, H., Kim, Y.S. and Choi, H.K. (2011). Ameliorating effects of Mango (*Mangifera indica* L.) fruit on plasma ethanol level in a mouse model assessed with ¹H-NMR based metabolic profiling. *J. Clin. Biochem. Nutr.*, **48**, 214–221.
- Kim, Y, Brecht, K.J. and Talcott, S.T. (2007). Antioxidant phytochemical and fruit quality changes in mango (*Mangifera Indica* L.) following hot water immersion and controlled atmosphere storage. *Food Chem.*, **105**, 1327–1334.
- King, J. (1965). The dehydrogenase of oxidoreductase–Lactate dehydrogenase. In *Practical Clinical Enzymology* (King, J.C and Van D, Eds.) Nostrand Co. London. 83–93.
- King, J. (1965a). The transferases–alanine and aspartase transferases. In: *Practical Clinical Enzymology*, 1st Edn. Nostrand Company Limited, London, 191–208.
- King, J. (1965b). The hydrolases–acid and alkaline phosphatases. In: *Practical Clinical Enzymology*, 1st Edn. Nostrand Company Limited, London, 83–93.
- Kinsella, J.E., Frankel, E.N., German, J.B. and Kanner, J. (1993). Possible mechanisms for the protective role of antioxidants in wine and plant foods. *Food Technol.*, **47**, 467–469.
- Klatsky, A.L. and Armstrong, M.A. (1993). Alcohol beverages choice and risk of coronary artery disease. Mortality: do red wine drinkers fare best? *Am J Cardiol.*, **71**, 467–469.
- Klatsky, A.L., Armstrong, M.A. and Friedman, G.D. (1997). Red wine, white wine, liquor, beer, and risk for coronary artery disease hospitalization. *Am J Cardiol.*, **80**, 416–420.
- Klim, M. and Nagy, S. (1988). An improved method to determine nonenzymic browning in citrus juice. *J Agri Food Chem.*, **36**, 1271–1274.
- Knekt, P., Jarvinen, R., Reunanen, A. and Maatela, J. (1996). Flavonoid intake and coronary mortality in Finland: a cohort study. *Bri Med J.*, **312**, 478–481.
- Koop, D.R., Crump, B.L., Nordblom, G.D. and Coon, M.J. (1989). Immunochemical evidence for induction of the alcohol oxidizing cytochrome P450 isozyme 3a (P-450IIE1) as a benzene and phenol hydroxylase. *Toxicol. Appl. Pharmacol.*, **98**, 278–288.
- Koziel, J., Jia, M.Y., Khaled, A., Noah, J. and Pawliszyn, J. (1999). Field air analysis with SPME device. *Anal. Chim. Acta.*, **400**, 153–162.

- Krishnamoorthy, G. (2012). Antioxidant efficacy of *Curculigo Orchioides* (Gaertn.) on ethanol-induced liver stress in rats. *Asian. J. Exp. Biol. Sci.*, **3**, 22–27.
- Kulkarni, J.H., Singh, H. and Chada, K.L. (1980). Preliminary screening of mango varieties for wine making, *J Food Sci Technol.*, **17**, 218–221.
- Kulkarni, R.S., Chidley, H.G., Pujari, K.H., Giri, A.P. and Gupta, V.S. (2012). Geographic variation in the flavour volatiles of *Alphonso* mango. *Food Chem.*, **130**, 58–66.
- Kumar, Y.S., Prakasam, R.S. and Reddy, O.V.S. (2009). Optimisation of fermentation conditions for mango (*Mangifera indica* L.) wine production by employing response surface methodology. *Int J Food Sci Technol.*, **44**, 2320–2327.
- Kumar, Y.S., Varakumar, S. and Reddy, O.V.S. (2012). Evaluation of antioxidant and sensory properties of mango (*Mangifera indica* L.) wine. *CyTA – J Food.*, **10**, 12–20.
- Kumari, N., Kumar, P., Mitra, D., Prasad, B., Tiwary, B.N. and Varshney, L. (2009). Effects of ionizing radiation on microbial decontamination, phenolic contents, and antioxidant properties of triphala. *J. Food Sci.*, **74**, 109–1113.
- Kurtzman, C.P. (1998). *Torulaspota* Lindner. In C.P. Kurtzman and J.W. Fell (Eds.), *The yeast: a taxonomic study*. Amsterdam: Elsevier. Pp. 404–408.
- Kurtzman, C.P. and Fell, J.W. (2006). Yeast systematics and Phylogeny: implications of molecular identification methods for studies in ecology. In C. Rosa and G. Péter (Eds.), *Biodiversity and ecophysiology of yeasts: the yeast handbook*. New York: Springer. Pp.11–30.
- Kwiterovich, P.O., Coresh, J., Smith, H.H., Bachoric, P.S., Derby, C.A. and Pearson, T.A. (1992). Comparison of plasma level of apolipoprotein B and A-1 and other risk factors in men and in women with premature coronary artery disease. *Am J Cardiol.*, **69**, 1015–1021.
- Lachance, M. A. and Starmer, W.T. (1998). Ecology and yeasts. In: The yeasts—a taxonomic study (Kurtzman, C. P., Fell, J. W. eds.) 4rd ed., Elsevier Science Publ. B.V. Amsterdam, the Netherlands, Pp. 21–30.
- Lakshminarayana, S., Subhadra, N.V. and Subramanyam, H. (1970). Some aspects of developmental physiology of mango fruit. *J Hort Sci.*, **45**, 133–142.
- Lalel, H.J.D., Singh, Z. and Tan S.C. (2003). Maturity stage at harvest affects fruit ripening, quality and biosynthesis of aroma volatile compounds in ‘Kensington Pride’ mango. *J. Hort. Sci. Biotechnol.*, **78**, 225–233.

- Lamb, R.G.G., Koch, J.C., Snyder, J.W., Hudand, S.M. and Bush, S.R. (1994). A model of ethanol dependent liver injury. *Hepatol.*, **19**, 174–182.
- Lambrechts, M.G. and Pretorius, I.S. (2000). Yeast and its importance to wine aroma – a review. *S Afr J Enol Vitic.*, **21**, 97–129.
- Landis, G.N. and Tower, J. (2005). Superoxide dismutase evolution and life span regulation. *Mech Ageing Dev.*, **126**, 365–379.
- Lankisch, P.G., Burchard–Reckert, S. and Lehnick, D. (1999). Underestimation of acute pancreatitis: patients with only a small increase in amylase/lipase levels can also have or develop severe acute pancreatitis *Gut*, **44**, 542–544.
- Laohaprasit, N., Ambadipudi, D.S. and Srzednicki, G. (2011). Optimisation of extraction conditions of volatile compounds in ‘Nam Dok Mai’ mangoes. *Int Food Res J.*, **18**, 1043–1049.
- Laposata, M. (1999). Assessment of ethanol intake current tests and new assays on the horizon. *American J. Clin Pathol.*, **112**, 443–450.
- Larrauri, J.A. (1999). New approaches in the preparation of high dietary fibre powders from fruit by products. *Trends Food Sci Technol.*, **10**, 3–8.
- Lea, A.G.H. (1995). Apple juice. In *Production and Packaging of Non–Carbonated Fruit Juices and Fruit Beverages*, 3rd ed.; Ashurts, P.R., Ed.; Springer: Berlin, Germany, pp. 153–196.
- Lebrun, M., Plotto, A., Goodner, K., Ducamp, M. N. and Baldwin, E. (2008). Discrimination of mango fruit maturity by volatiles using electron nose and gas chromatography. *Postharvest Biol Tec.*, **48**, 122–131.
- Lee, D.H., Blomhoff, R. and Jacobs, Jr D.R. (2004). Is serum γ -glutamyl–S–transferase a marker of oxidative stress? *Free Rad Res.*, **38**, 535–539.
- Lee, D.U., Park, J.Y., Lee, Y.B., and Yeo, I.H. (1995). Inactivation of microorganisms and browning enzymes in *Angelica keiskei* juice using high hydrostatic pressure. *Korean J. Food Sci Tec.*, **27**, 991–996.
- Lee, J.W., Kim, J.K., Srinivasan, P., Choi, J., Kim, J.H., Han, S.B., Kim, D.J. and Byun, M.W. (2009). Effect of gamma irradiation on microbial analysis, antioxidant activity, sugar content and color of ready–to–use tamarind juice during storage. *LWT–Food Sci. Technol.*, **42**, 101–105.

- Lee, K.W., Kim, Y.J., Kim, D.O., Lee, H.J. and Lee, C.Y. (2003). Major phenolics in apple and their contribution to the total antioxidant capacity. *J Agric Food Chem.*, **51**, 6516–6520.
- Lee, P.R., Ong, Y.L., Yu, B., Curran, P. and Liu, S.Q. (2010). Profile of volatile compounds during papaya juice fermentation by a mixed culture of *Saccharomyces cerevisiae* and *Williopsis saturnus*. *Food Microbiol.*, **22**, 853–861.
- Lee, S.K. and Kader, A. (2000). Preharvest and postharvest factors influencing vitamin C content of horticultural crops. *Postharvest Biol Technol.*, **20**, 207–220.
- Lee, S.L., Chau, G.Y., Yao, C.T., Wu, C.W. and Yin, S.J. (2006). Functional assessment of human alcohol dehydrogenase family in ethanol metabolism: Significance of first-pass metabolism. *Alcohol Clin Exp Res.*, **30**, 1132–1142.
- Lee, S.L., Wang, M.F., Lee, A.I. and Yin, S.J. (2003). The metabolic role of human ADH3 functioning as ethanol dehydrogenase. *FEBS Letters*, **544**, 143–147.
- Lee, S.S., Lee, E.M., An, B.C., Kim, T.H., Lee, K.S., Cho, J.Y., Yoo, S.H., Bae, J.S. and Chung, B.Y. (2011). Effects of irradiation on decolourisation and biological activity in *Schizandra chinensis* extracts. *Food Chem.*, **125**, 214–220.
- Leiber, C.S. and Davideon, C.S. (1962). Metabolic effects of ethyl alcohol. *Am. J. Clin. Med.*, **33**, 319.
- Leighton, F., Cuevas, A., Guasch, V., Perez, D.D., Strobel, P., Martin, A.S., et al. (1999). Plasma polyphenols and antioxidants, oxidative DNA damage and endothelial function in a diet and wine intervention study in humans. *Drugs Exp Clin Res.*, **25**, 133–141.
- Leikert, J.F., Rathel, T.R., Wohlfart, P., Cheynier, V., Vollmar, A.M. and Dirsch, V.M. (2002). Red wine polyphenols enhance endothelial nitric oxide synthase expression and subsequent nitric oxide release from endothelial cells. *Circulation*, **106**, 1614–1617.
- Leistner, L. (1996). Food protection by hurdle technology. *J. Food Protect.*, **2**, 2–27.
- Leo, M.A., Rosman, A. and Lieber, C.S. (1993). Differential depletion of carotenoids and tocopherol in liver diseases. *Hepatology*, **17**, 977–986.
- Leterme, P., Buldgen, A., Estrada, F., and Londono, A.M. (2006). Mineral content of tropical fruits and unconventional foods of the Andes and the rain forest of Colombia. *Food Chem.*, **95**, 644–652.
- Li, J. and Billiar, T.R. (1999). Nitric Oxide. IV. Determinants of nitric oxide protection and toxicity in liver. *American J. Physiol.*, **276**, 1069–1073.

- Li, Q.C., Qiu, L. and Xiong, J. (1998). Analysis of aromatic components in magos from Nujiang Basin of Yunnan Province. *Chinese J. Chromatogr.*, **16**, 268–270.
- Li, X., Chan, L.J., Yu, B., Curran, P. and Liu, S.Q. (2012b). Fermentation of three varieties of mango juices with a mixture of *Saccharomyces cerevisiae* and *Williopsis saturnus* var. *mrakii*. *Int J Food Microbiol.*, **158**, 28–35.
- Li, X., Lim, S.L., Yu, B., Curran, P., Liu, S.Q. (2013a). Impact of pulp on the chemical profile of mango wine. *S. Afr. J. Enol. Vitic.*, **34**, 119–128.
- Li, X., Lim, S.L., Yu, B., Curran, P., Liu, S.Q. (2013b). Mango wine aroma enhancement by pulp contact and β -glucosidase. *Int J. Food Sci Technol.*, **48**, 2258–2266.
- Li, X., Yu, B., Curran, P. and Liu, S.Q. (2011). Chemical and volatile composition of mango wines fermented with different *Saccharomyces cerevisiae* yeast strains. *S. Afr J Enol Vitic.*, **32**, 117–128.
- Li, X., Yu, B., Curran, P. and Liu, S.Q. (2012a). Impact of two *Williopsis* yeast strains on the volatile composition of mango wine. *Int J Food Microbiol.*, **47**, 808–815.
- Liber, C.S. (1995). Medical disorders of alcoholism. *N. Engl. J. Med.*, **333**, 1058–1065.
- Liber, C.S. (1997a). Role of oxidative stress and antioxidant therapy in alcoholic and nonalcoholic liver diseases. *Adv. Pharmacol.*, **38**, 601–628.
- Lichtenthaler, H.K. (1999). The 1–deoxy–D–xylulose–5–phosphate pathway of isoprenoid biosynthesis in plants. *Annu. Rev. Plant Physiol. Plant Mol. Biol.*, **50**, 47–65.
- Lieber, C.S (2004). The discovery of the microsomal ethanol oxidizing system and its physiologic and pathologic role. *Drug Metab Rev.*, **3**, 511–529.
- Lieber, C.S. (1992). *Medical and Nutritional Complications of Alcoholism: Mechanisms and Management*. New York: Plenum.
- Lieber, C.S. (1993). Biochemical factors in alcoholic liver disease. *Semin Liver Dis.*, **13**, 136–153.
- Lieber, C.S. (1997b). Cytochrome P4502E1: its physiological and pathological role. *Physiol. Rev.*, **77**, 517–544.
- Lieber, C.S. (1999a). Microsomal ethanoloxidizing system (MEOS), the first 30 years (1968–1998)–a review. *Alcohol Clin. Exp. Res.*, **23**, 991–1007.
- Lieber, C.S. (1999b). Role of S–adenosyl– L–methionine in the treatment of liver diseases. *J. Hepatol.*, **30**, 1155–1159.
- Lieber, C.S. (2000). Alcohol: Its metabolism and interaction with nutrients. *Annu. Rev. Nutr.*, **20**, 395–430.

- Lieber, C.S. (2003). Relationships between nutrition, alcohol use, and liver disease. *Alcohol Res Health.*, **27**, 220–231.
- Lieber, C.S. and DeCarli, L.M. (1968). Ethanol oxidation by hepatic microsomes: adaptive increase after ethanol feeding. *Science*, **162**, 917–918.
- Lin, H.M., Yen, F.L., Ng, L.T. and Lin, C.C. (2007). Protective effects of *Ligustrum lucidum* fruit extract on acute butylated hydroxytoluene–induced oxidative stress in rats. *J. Ethnopharmacol.*, **111**, 129–136.
- Linster, C.L. and Van Shaftingen, E. (2007). Vitamin C. Biosynthesis, recycling and degradation in mammals. *FEBS J.*, **274**, 1–22.
- Liu, R.H. (2003). Health benefits of fruits and vegetables are from additive and synergistic combination of phytochemicals. *Am J. Clin Nutr.*, **78**, 517–520.
- Loaharanu, P. (1989). Food Irradiation: A Contribution to Economy and Health. International Atomic Energy Agency Yearbook (Part B). IAEA, Vienna, pp. 5–21.
- Loaharanu, P. (1996). Irradiation as a cold pasteurization process of food. *Vet Parasitol.*, **64**, 71–82.
- Loguercio, C., Piscopo, P., Guerriero, C., De Girolamo, V., Disalvo, D. and Del Vecchio Blanco, C. (1996). Effect of alcohol abuse and glutathione administration on the circulating levels of glutathione and on antipyrine metabolism in patient with alcoholic liver cirrhosis. *Scand. J. Clin Lab Invest.*, **56**, 441–447.
- Lopes, D.C., Fraga, S.R. and Rezende, C.M. (1999). Aroma impact substances on commercial Brazilian mangoes by HRGC–OAEDA–MS. *Quim. Nova.*, **22**, 31–36.
- Lopez, M., Martinez, F., Del Valle, C. and Miro, M. (2001). Analyses of phenolic constituents of biological interest in red wines by high performance liquid chromatography. *Journal of Chromatography A.*, **922**, 359–363.
- Lowry, O.H., Rosenbrough, N.J., Farr, A.L. and Randall, R.J. (1951). Protein measurement with Folin–phenol reagent. *J Biol Chem.*, **193**, 265–275.
- Lupien, S., Karp, F., Wildung, M. and Croteau, R. (1999). Regiospecific cytochrome P450 limonene hydroxylases from mint (*Mentha*) species: Cdna isolation, characterization, and functional expression of (–)–4S–limonene–3–hydroxylase and (–)–4S–limonene–6–hydroxylase. *Arch. Biochem. Biophys.*, **368**, 181–192.
- Macdonald, I.O., Olusola, O.J. and Osaigbovo, U.A. (2010). Effects of chronic ethanol administration on body weight, reduced glutathione (GSH), malondialdehyde (MDA) levels and glutathione–s–transferase activity (GST) in rats. *New York Sci J.*, **3**, 39–47.

- MacLeod, A. J. and Pieris, N.M. (1984). Comparison of the volatile components of some mango cultivars. *Phytochem.*, **23**, 361–366.
- MacLeod, A.J. and Gonzalez de Troconis, N. (1982). Volatile flavor components of mango fruit. *Phytochem.*, **21**, 2523–2536.
- MacLeod, A.J. and Snyder, C.H. (1985). Volatile components of two cultivars of mango from Florida. *J. Agric. Food Chem.*, **33**, 380–384.
- MacLeod, A.J., MacLeod, G. and Snyder, C.H. (1988). Volatile aroma constituents of mango (cv Kensington). *Phytochem.*, **27**, 2189–2193.
- Maffei, M.E. (2010). Changes in biosynthesis of aroma volatile compounds during on–tree maturation of “Pink Lady” apples. *South Afr. J. Bot.*, **76**, 612–631.
- Mallikarjuna, K., Sahitya Chetan, P., Sathyavelu Reddy, K. and Rajendra, W. (2008). Ethanol toxicity: Rehabilitation of hepatic antioxidant defense system with dietary ginger. *Fitoterapia*, **79**, 174–178.
- Malloy, H.T. and Evelyn, K.A. (1937). Estimation of serum bilirubin. *J Biol Chem.*, **119**, 481–490.
- Malmendier, C.L. and Delcroix, C. (1985). Effect of alcohol intake on high and low density lipoprotein metabolism in health volunteers. *Clin Chim Acta.*, **152**, 281–288.
- Malomo, S.O. (2000). Toxicological implication of Ceftriaxome administration in rats. *Nig. J. Biochan. Mol. Biol.*, **15**, 33–35.
- Malundo, T.M.M., Baldwin, E.A., Moshonas, M.G., Baker, R.A. and Shewfelt, R.L. (1997). Method for the rapid headspace analysis of mango (*Mangifera indica* L.) homogenate volatile constituents and factors affecting quantitative results. *J. Agric. Food Chem.*, **45**, 2187–2194.
- Malundo, T.M.M., Baldwin, E.A., Ware, G.O. and Shewfelt, R.L. (1996). Volatile Composition and Interaction Influence Flavor Properties of Mango (*Mangifera indica* L.) *P Fl St Horti Soc.*, **109**, 264–268.
- Mani, F., Braga, C.P., Novelli, E.L.B. and Sforzin, J.M. (2012). Influence of clove tea (*Syzygium aromaticum*) on body weight and biochemical parameters of rats subjected to ethanol consumption and abstinence. *Med chem.*, **2**, 81–85.
- Margalit, Y. (1997). Concepts in Wine Chemistry. The Wine Appreciation Guild, San Francisco, CA.

- Marianna, N.X., Elizabeth, F., Konstantia, K., Tzortzis, N., Haralabos, C.K. and Smaragdi, A. (2010). Antioxidant and anti-inflammatory activity of red and white wine extracts. *Food Chem.*, **120**, 665–672.
- Marques-Vidal, P., Cambou, J.P., Nicaud, V., Luc, G., Evans, A., Arveiler, D., Bingham, A. and Cambien, F. (1995). Cardiovascular risk factors and alcohol consumption in France and Northern Ireland. *Atherosclerosis.*, **115**, 225–232.
- Marsh, K.B., Rossiter, K., Lau, K., Walker, S., Gunson, A., Macrae, E. (2003). Using fruits to explore flavour in kiwifruit. *Acta Hort.*, **610**, 229–238.
- Martin, D., Faldt, J. and Bohlmann, J. (2004). Functional characterization of nine Norway spruce *TPS* genes and evolution of gymnosperm terpene synthases of the *TPS-d* subfamily. *Plant Physiol.*, **135**, 1908–1927.
- Martini, A. and Martini, A.V. (1990). Grape must fermentation: past and present. *Yeast Tec.*, 105–123.
- Masalkar, P.D. and Abhang, S.A. (2005). Oxidative stress and antioxidant status in patients with alcoholic liver disease. *Clinica Chimica Acta.*, **355**, 61–65.
- Masibo, M. and He, Q. (2008). Major mango polyphenols and their potential significance to human health. *Compr. Rev. Food Sci. Food Safety.*, **7**, 309–319.
- Matejcek, D., Mikes, O., Klejdus, B., Sterbova, D. and Kuban, V. (2005). Changes in content of phenolic compounds during maturing of barrique red wine. *Food Chem.*, **90**, 791–800.
- Mato, I., Suarez-Luque, S. and Huidobro, J.F. (2005). A Review of the Analytical Methods to Determine Organic Acids in Grape Juices and Wines. *Food Res. Int.*, **38**, 1175–1188.
- Mauricio, J.C., Moreno, J., Zea, L., Ortega, J.M. and Medina, M. (1997). The Effects of grape must fermentation conditions on volatile alcohols and esters formed by *Saccharomyces cerevisiae*. *J Sci Food Agri.*, **75**, 155–160.
- McCord, J.M. and Fridovich, I. (1969). Superoxide dismutase: an enzymatic function for erythrocyte (hemocuprein). *J. Biol. Chem.*, **244**, 6049–6055.
- McDonald, M.S., Hughes, M., Bruns, J., Lean, M.E.J., Matthews, D. and Crozier, A. (1998). Survey of the free and conjugate myricetin and quercetin content of red wines of different geographical origins. *J Agri Food Chem.*, **46**, 368–375.
- McGarvey, D.J. and Croteau, R. (1995). Terpenoid metabolism. *Plant Cell.*, **7**, 1015–1026.
- McIlveen, H. and Armstrong, G. (1996). Sensory analysis and the food industry: can computers improve credibility? *Nutrition and Food Science.*, **1**, 36–40.

- Meager, E.A., Barry, O.P., Burke, A., Lucey, M.R., Lawson, J.A., Rokach, J. and Fitzgerald, G.A. (1999). Alcohol-induced generation of lipid peroxidation products in humans. *J. Clin Invest.*, **104**, 805–813.
- Medlicott, A.P., Bhogal, M. and Reynolds, S.B. (1986). Changes in peel pigmentation during ripening of mango fruit (*Mangifera indica* var. Tommy Atkins). *Ann Appl Biol.*, **109**, 651–656.
- Meilgaard, M., Civille, G.V. and Carr, B.T. (1999). *Sensory evaluation techniques* (3rd ed.). New York: CRC Press.
- Melidou, M., Riganakos, K. and Galaris, D. (2005). Protection against nuclear DNA damage offered by flavonoids in cells exposed to hydrogen peroxide: The role of iron chelation. *Free Radical Biol Med.*, **39**, 1591–1600.
- Mexis, S.F. and Kontominas, M.G. (2009). Effect of gamma irradiation on the physico-chemical and sensory properties of raw shelled peanuts (*Arachis hypogaea* L.) and pistachio nuts (*Pistacia vera* L.). *Sci Food Agric.*, **89**, 867–875.
- Mezey, E., Potter, J.J., Tankersley, L.R., Caballeire, J. and Pares, A. (2004). A randomized placebo controlled trial of vitamin E for alcoholic hepatitis. *J. Hepatol.*, **40**, 40–46.
- Mezzano, D., Leighton, F., Martinez, C., Marshall, G., Cuevas, A., Castillo, O., Panes, O., Munoz, B., Perez, D.D., Mizon, C., Rozowski, J., San Martin, A. and Pereira, J. (2001). Complementary effects of Mediterranean diet and moderate red wine intake on haemostatic cardiovascular risk factors. *Eur J Clin Nutr.*, **55**, 444–451.
- Middleton, E. and Kandaswami, C. (1992). Effects of flavonoids on immune and inflammatory cell function. *Biochem Pharmacol.*, **43**, 1167–1179.
- Miller, G.L. (1959). Use of dinitrosalicylic acid for determination of reducing sugar. *Anal Chem.*, **31**, 426–428.
- Miller, W.R., and McDonald, R.E. (1996). Quality of ‘Brightwell’ and ‘Tifblue’ blueberries after gamma irradiation for quarantine treatment. *HortScience.*, **31**, 1234.
- Miller, W.R., and McDonald, R.E. (1999). Irradiation, stage of maturity at harvest and storage temperature during ripening affect papaya fruit quality. *Hortscience.*, **34**, 1112–1115.
- Miller, W.R., Mitcham, E.J., McDonald, R.E. and King, J.R. (1994). Postharvest storage quality of gamma-irradiated climax rabbiteye blueberries. *HortScience.*, **29**, 98–101.

- Mills, D.A., Phister, T., Neeley, E. and Johannsen E. (2008). Wine Fermentation. In L. Cocolin and D. Ercolini (eds.), *Molecular Techniques in the Microbial Ecology of Fermented Foods*. Pp. 162–192.
- Mills, G.A. and Walke, V. (2000). Headspace solid–phase microextraction procedures for gas chromatographic analysis of biological fluids and materials. *J. Chromatogr. A.*, **902**, 267–287.
- Mishra, B.B., Gautam, S. and Sharma, A. (2004). Shelf–Life extension of fresh ginger (*Zingiber officinale*) by gamma irradiation. *J. Food Sci.*, **64**, 274–279.
- Mishra, B.B., Gautam, S., Sharma, A. (2011). Shelf life extension of sugarcane juice using preservatives and gamma radiation processing. *J. Food Sci.*, **76**, 573–578.
- Mishra, B.B., Kumar, S., Wadhawan, S., Hajare, S.N., Saxena, S., More, V., et al. (2012). Browning of litchi fruit pericarp: Role of polyphenol oxidase, peroxidase, phenylalanine ammonia lyase and effect of gamma radiation. *J. Food Biochem.*, **36**, 604–612.
- Misra, P.S., Lefevre, A., Ishii, H., Rubin, E. and Lieber, C.S. (1971). Increase of ethanol meprobamate and pentobarbital metabolism after chronic ethanol administration in man and in rats. *Am. J. Med.*, **51**, 346–51.
- Misra, U.K., Bradford, B.U., Handler, J.A. and Thurman, R.G. (1992). Chronic ethanol treatment induces H₂O₂ production selectively in pericentral regions of the liver lobule. *Alcohol Clin Exp Res.*, **16**, 839–842.
- Mitchell, G.E., McLauchlan, R.L., Isaacs, R.L., Williams, D.J. and Nottingham, S.M. (1992). Effect of low dose radiation on composition of tropical fruits and vegetables. *J. Food Comp Anal.*, **5**, 291–311.
- Mitchell, J.R., Mack, C., Mezey, E. and Maddrey, W.C. (1981). The effects of variation in dietary protein and ethanol on hepatic microsomal drug metabolism in the rat. *Hepatology*, **1**, 336–40.
- Miura, T., Ichiki, H., Hashimoto, I., Iwamoto, N., Kato, M., Kubo, M., Ishihara, E., Komatsu, Y., Okada, M., Ishida, T. and Tanigawa, K. (2001). Antidiabetic activity of a xanthone compound mangiferin. *Phytomedicine*, **8**, 85–87.
- Mohamed El Hadi, M.A., Zhang, F.J., Wu, F.F., Zhou, C.H. and Tao, J. (2013). Advances in Fruit Aroma Volatile Research. *Molecules.*, **18**, 8200–8229.
- Mohamed, M., Abdellatif, M., Sabar, A. and Elglammal, M. (2003). Sodium fluoride ion and renal function after prolonged sevoflurane or isoflurane anaesthesia. *Eng J Anaesth.*, **19**, 79–83.

- Mojzisova, G. and Kuchta, M. (2001). Dietary flavonoids and risk of coronary heart disease. *Physiol Res.*, **50**, 529–535.
- Moniuszko, J.J., Jurczuk, M., Brzoska, M.M., Rogalska, J. and Galazyn-Sidorczuk, M. (2005). Involvement of some low-molecular thiols in the destructive mechanism of cadmium and ethanol action on rat livers and kidneys. *Polish J Environ Stu.*, **14**, 483–489.
- Monk, J.D., Beuchat, L.R., and Doyle, M.P. (1994). Irradiation inactivation of foodborne microorganisms. *J. Food Protect.*, **58**, 197–208.
- Morales, M.T., Berry, A.J., McIntyre, P.S. and Aparicio, R. (1998). Tentative analysis of virgin olive oil aroma by supercritical fluid extraction–high-resolution gas chromatography–mass spectrometry. *J. Chromatogr. A.*, **819**, 267–275.
- Morales–Gonzalez, J.A. (2009). Antioxidant defenses, In: Antioxidants and chronic degenerative diseases, Miranda Martínez I, Gasca Leon MI, Aedo Santos MA, Cantoral Preciado AJ, Gallardo Wong I, Hidalgo, Mexico. Pp. 131–225.
- Morales–Gonzalez, J.A., Gutierrez–Salinas, J., Yanez, L., Villagomez, C., Badillo, J. and Hernandez, R. (1999). Morphological and biochemical effects of a low ethanol dose on rat liver regeneration. Role of route and timing of administration. *Dig Dis Sci.*, **44**, 1963–1974.
- Morales–Gonzalez, J.A., Jimenez, L., Gutierrez–Salinas, J., Sepulveda, J., Leija, A. and Hernandez, R. (2001). Effects of ethanol administration on hepatocellular ultrastructure of regenerating liver induced by partial hepatectomy. *Dig Dis Sci.*, **46**, 360–369.
- Morehouse, K. M. (2002). Food irradiation – US regulatory considerations. *Radiat. Phys. Chem.*, **63**, 281–284.
- Moreno, M.A., Castell–Perez, E., Gomes, C., Da Silva, P.F. and Moreira, R.G. (2007). Quality of electron beam irradiation of blueberries (*Vacciniumcorymbosum* L.) at medium dose levels (1.0–3.2 kGy). *LWT–Food Sci. Technol.*, **40**, 1123–1132.
- Moreno, M.A., Castell–Perez, M.E., Gomes, C., DaSilva, P. and Moreira, R.G. (2006). Effects of electron beam irradiation on physical, textural, and microstructural properties of “TommyAtkins” mangoes (*Mangiferaindica* L.). *J. Food Sci.*, **71**, 80–86.
- Moreno–Arribas, M.V. and Polo, M.C. (2005). wine-making biochemistry and microbiology: current knowledge and future trends. *Critic Rev Food Sci Nutr.*, **45**, 265–286.

- Moreno-Arribas, M.V., and Polo, C. (2008). Occurrence of lactic acid bacteria and biogenic amines in biologically aged wines. *Food Microbiol.*, **25**, 875–881.
- Moron, M.S., DePierre, J.W. and Manrervik, B. (1979). Levels of glutathione, glutathione reductase and glutathione-S-transferase activities in rat lung and liver. *Biochim Biophys Acta.*, **582**, 67–68.
- Morsi, R.M., EL-Tahan, N.R. and El-Hadad, A.M.A. (2010). Effect of Aqueous Extract Mangifera Indica Leaves, as Functional Foods. *J. Appl Sci Res.*, **6**, 712–721.
- Mortimer, R. and Polsinelli, M. (1999). On the origins of wine yeast. *Res Microbiol.*, **150**, 199–204.
- Morton, S. and Mitchell, M.C. (1985). Effects of chronic ethanol feeding on glutathione turnover in the rat. *Biochem. Pharmacol.*, **34**, 1559–1563.
- Mosesson, M.W., Siebenlist, K.R. and Meh, D.A. (2001). The structure and biological features of fibrinogen and fibrin. *Ann NY Acad Sci.*, **936**, 11–30.
- Moshi, M.J., Lutale, J.J.K., Rimoy, G.H., Abbas, Z.G., Josiah, R.M. and Andrew, B.M. (2001). The effect of *Phyllanthus amarus* aqueous extract on blood glucose in non-insulin dependent diabetic patients. *Phyto Res.*, **15**, 577–580.
- Moy, J.H., Akamine, E.K., Wenkan, N., Dollar, A.M., Hanaoka, M., Kao, H.Y., Liv, W.L. and Rinetti, L.M. (1973). Tolerance, quality, and shelf life of gamma irradiated papaya grown in Hawaii, Taiwan and Venezuela. In: International Atomic Energy Agency. Radiation Preservation of Food. IAEA, Vienna, pp. 375–387.
- Mukamal, K.J., Jadhav, P.P., D'Agostino, R.B., Massaro, J.M., Mittleman, M.A., Lipinska, I., Sutherland, P.A., Matheney, T., Levy, D., Wilson, P.W., Ellison, R.C., Silbershatz, H., Muller, J.E. and Tofler, G.H. (2001). Alcohol consumption and hemostatic factors. Analysis of the framingham offspring cohort. *Circulation.*, **104**, 1367–1373.
- Muntwyler, J., Henneckens, C.H., Buering, J.E., Gaziano, J.M. (1998). Mortality and light to moderate alcohol consumption after myocardial infarction. *Lancet*, **352**, 1882–1885.
- Naito, Y., Lee, M.C., Kato, Y., Nagai, R. and Yonei, Y. (2010). Oxidative stress markers—Review. *Anti-Aging Med.*, **7**, 36–44.
- Nanji, A.A., Greenberg, S.S., Tahan, S.R., Fogt, F., Loscalzo, J., Sadrzadeh, S.M.H., Xie, J. and Stamler, J.S. (1995a). Nitric oxide production in experimental alcoholic liver disease in the rat: role in protection from injury. *Gastroenterology*, **109**, 899–907.

- Nanji, A.A., Griniuviene, B., Sadrzadeh, S.M.H., Levitsky, S. and McCully, J.D. (1995b). Effect of dietary fat and ethanol on antioxidant enzyme mRNA induction in rat liver. *J. Lipid Res.*, **36**, 736–744.
- Nanji, A.A., Khwaja, S., Tahan, S.R. and Sadrzadeh, H.S.M. (1994a). Plasma levels of a novel noncyclooxygenase–derived prostanoid (8–isoprostane) correlate with severity of liver injury in experimental alcoholic liver disease. *J. Pharmacol Exp Ther.*, **269**, 1280–1285.
- Nanji, A.A., Yang, E.K., Fogt, F., Sadrzadeh, S.M.H. and Dannenberg, A.J. (1996). Medium chain triglycerides and vitamin E reduce the severity of established experimental alcoholic liver disease. *J. Pharmacol Exp Ther.*, **277**, 1694–1700.
- Nanji, A.A., Zhao, S., Sadrzadeh, S.M.H., Dannenberg, A.J., Tahan, S.R. and Waxman, D.J. (1994b). Markedly enhanced cytochrome P4502E1 induction and lipid peroxidation is associated with severe liver injury in fish oil–treated ethanol–fed rats. *Alcohol Clin Exp Res.*, **18**, 1280–1285.
- Narvaiz, P., Lescano, G. and Kairiyama, E. (1992). Irradiation of almonds and cashew nuts. *Lebensmittel–Wissenschaft Tec.*, **25**, 232–235.
- Newman, J.D. and Chappell, J. (1999). Isoprenoid biosynthesis in plants: Carbon partitioning within the cytoplasmic pathway. *Crit. Rev. Biochem. Mol. Biol.*, **34**, 95–106.
- Nielson, S.S. (2010). Food analysis laboratory manual (2nd ed.). New York: Springer (Chapter 6).
- Niemela, O. (2002). Serum diagnosis of alcoholic liver disease and markers of ethanol intake. In: Ethanol and the Liver, Eds. Sherman, D., Preedy, V. and Watson, R. R. Taylor and Francis, London. pp. 411–449
- Niemela, O., Parkkila, S., Yla –Herttuala, S., Halsted, C., Witztum, J.L., Lanca, A. and Israel, Y. (1994). Covalent protein adducts in the liver as a result of ethanol metabolism and lipid peroxidation. *Lab Invest.*, **70**, 537–546.
- Niemira, B.A. and Deschenes, L. (2004). Ionizing radiation processing of fruits and fruit products. In D. M. Barrett, L. Somogyi, & H. Ramaswamy (Eds.), Processing fruits (2nd ed.). Boca Raton, FL: CRC press.
- Niemira, B.A., Sommers, C.H., and Boyd, G. (2001). Irradiation inactivation of four Salmonella species in orange juices with varying turbidity. *J. Food Protect.*, **64**, 614–617.

- Nigdikar, S.V., Williams, N.R., Griffin, B.A. and Howard, A.N. (1998). Consumption of red wine polyphenols reduces the susceptibility of low-density lipoproteins to oxidation *in vivo*. *Am J Clin Nutr.*, **68**, 258–265.
- Niki E. (2009). Lipid peroxidation: physiological levels and dual biological effects. *Free Rad Biol Med.*, **47**, 469–484.
- Nine, J.S., Moraca, M., Virji, M.A. and Rao, K.N. (1995). Serum ethanol determination: comparison of lactate and lactate dehydrogenase interference in three enzymatic assays. *J Anal Toxicol.*, **19**, 192–196.
- Ninio, R., Lewinsohn, E., Mizrahi, Y. and Sitrit, Y. (2003). Quality attributes of storage koubo (*Cereus peruvianus* (L.) Miller) fruit. *Postharvest Biol. Technol.*, **30**, 273–280.
- Nordmann, R. (1994). Alcohol and antioxidant systems. *Alcohol Alcohol.*, **29**, 513–522.
- Nordmann, R., Ribiere, C. and Rauch, H. (1987). Involvement of iron and iron-catalyzed free-radical production in ethanol metabolism and toxicity, *Enzyme.*, **37**, 57–69.
- Nordstrom, K. (1964). Formation of esters from acids by brewer's yeast. IV. Effect of higher fatty acids and toxicity of lower fatty acids. *J Inst Brew.*, **70**, 233–242.
- Nunes, T.P., Martins, C.G., Behrens, J.H., Souza, K.O., Genovese, M.I., Destro, M.T., et al. (2008). Radioresistance of *Salmonella* species and *Listeria monocytogenes* on minimally processed arugula (*Eruca sativa* Mill.): Effect of irradiation on flavonoid content and acceptability of irradiated produce. *J Agric Food Chem.*, **56**, 1264–1268.
- Nzi, A.K., Elfriede, M.B., Nilton, L., Soraya, D. and Varela, E.A. (2007). Acute, sub-acute toxicity and genotoxic effect of a hydroethanolic extract of the cashew (*Anacardium occidentale* L.). *J Ethnopharmacol.*, **110**, 30–38.
- O'Keefe, J.H. Jr., Cordain, L., Harris, L.H., Moe, R.M. and Vogel, R. (2004). Optimal Low-density Lipoprotein is 50 to 70mg/dl? Lower is better and physiologically normal. *J. Am. Coll. Cardiol.*, **43**, 2142–2146.
- Oak, M.H., El-Bedoui, J. and Schini-Kerth, V.B. (2005). Antiangiogenic properties of natural polyphenols from red wine and green tea. *J. Nutr Biochem.*, **16**, 1–8.
- Obisanya, M.O., Aina, O. and Oguntimei, G.B. (1987). Production of wine from mango (*Magnifera indica* L.) using *Saccharomyces* and *Schizosaccharomyces* species isolated from palm wine. *J Appl Bacteriol.*, **63**, 191–196.
- Ogura, K. and Koyama, T. (1998). Enzymatic aspects of isoprenoid chain elongation. *Chem. Rev.*, **98**, 1263–1276.

- Oh, S.I., Kim, C.I., Chun, H.J. Lee, M.S. and Park, S.C. (1997). Glutathione recycling is attenuated by acute ethanol feeding in rat liver, *J Korean Med Sci.*, **12**, 316–321.
- Ohkawa, H., Ohishi, N. and Yagi, K. (1979). Assay for lipid peroxides in animal tissues by thiobarbituric acid reaction. *Anal Biochem.*, **95**, 351–358.
- Ojewole, J.A. (2005). Antiinflammatory, analgesic and hypoglycemic effects of *Mangifera indica* Linn. (Anacardiaceae) stem–bark aqueous extract. *Methods Find Exp Clin Pharmacol.*, **27**, 547–554.
- Olle, D., Baumes, R.L., Bayonove, C.L., Lozano, Y.F., Sznaper, C. and Brillouet, J.M. (1998). Comparison of free and glycosidically linked volatile components from polyembryonic and monoembryonic mango (*Mangifera indica* L.) cultivars. *J. Agric. Food Chem.*, **46**, 1094–1100.
- Omaye, S.T., Tumball, J.D. and Sauberlich, H.E. (1979). Selected methods for the determination of ascorbic acid in animal cells, tissues and fluids. *Methods Enzymol.*, **62**, 1–11.
- Onkarayya, H. and Singh, H. (1984). Screening of mango varieties for dessert and mandeira- style wine. *Am J Enol Vitic.*, **35**, 63–65.
- Orellana, M., Valdes, E., Fernandez, J. and Rodrigo, R. (1998). Effects of chronic ethanol consumption on extra mitochondrial fatty acid oxidation and ethanol metabolism by rat kidney. *Gen Pharmacol.*, **30**, 719–723.
- Ornelas-Paz, J.J., Yahia, E.M. and Gardea-Bejar, A. (2007). Identification and quantification of xanthophylls esters, carotenes, and tocopherols in the fruit of seven Mexican mango cultivars by liquid chromatography-atmospheric pressure chemical ionization-time-of-flight mass spectrometry [LC-(APCI⁺)-MS]. *J Agric Food Chem.*, **55**, 6628–6635.
- Ortega–Heras, M., Gonzalez–San Jose, M.L. and Beltran, S. (2002). Aroma composition of wine studied by different extraction methods. *Anal Chim Acta.*, **458**, 85–93.
- Oshita, K., Kubota, M., Uchida, M. and Ono, M. (1995). Clarification of the relationship between fusel alcohol formation and amino acid assimilation by brewing yeast using C₁₃ labeled amino acid. *Proceedings of the European Brewing Convention Congress*, Brussels, IRL Press: Oxford. Pp. 387–394.
- Ostrowska, J., Luczaj, W., Kasacka, I., Rozanski, A. and Skrzydlewska, E. (2004). Green tea protects against ethanol–induced lipid peroxidation in rat organs, *Alcohol.*, **2**, 25–32.

- Ouchi, K., Yamamoto, Y., Takagishi, M. and Akiyama, H. (1980). Regulation of isoamyl alcohol formation via Ehrlich pathway in *Saccharomyces cerevisiae*. *J Ferment Technol.*, **58**, 301–309.
- Oufedjikh, H., Mostafa, M., Amiot, M.J. and Lacroix, M. (2000). Effect of γ -irradiation on phenolic compounds and phenylalanine ammonia-lyase activity during storage in relation to peel injury from peel of *Citrus clementina* Hort. Ex. Tanaka. *J Agric Food Chem.*, **48**, 559–565.
- Ough, C.S. and Bell, A.A. (1980). Effects of nitrogen fertilization of grapevines on amino acid metabolism and higher alcohol formation during grape juice fermentation. *Am J Enol Vitic.*, **31**, 122–123.
- Owen, J.A., Iggo, B., Scandrett, F.J. and Stewart, C.P. (1954). The determination of creatinine in plasma or serum and in urine: A critical examination. *Biochem. J.*, **58**, 426–437.
- Paganga, G., Miller, N. and Rice-Evans, C.A. (1999). The polyphenolic content of fruit and vegetables and their antioxidant activities. What does a serving constitute? *Free Rad Res.*, **30**, 153–162.
- Pangborn, R.M. (1989). The evaluation of sensory science and its interaction with IFT. *Food Technol.*, **9**, 248–256.
- Parekh, A.C. and Jung D.H. (1970). Cholesterol determination with ferric acetate–uranium acetate and sulphuric acid–ferrous sulphate reagents. *Anal Chem.*, **42**, 1423–1428.
- Pari, L. and Karthikesan, K. (2007). Protective role of caffeic acid against alcohol-induced biochemical changes in rats. *Fundam Clin Pharmacol.*, **21**, 355–361.
- Parish, M.E. (1997). Public health and nonpasteurized fruit juices. *Crit Rev Microbiol.*, **23**, 109–119.
- Parmar, H.S. and Kar, A. (2009). Protective role of *Mangifera indica*, *Cucumis melo* and *Citrullus vulgaris* peel extracts in chemically induced hypothyroidism. *Chem Biol Interact.*, **177**, 254–258.
- Patras, A., Brunton, N.P., Da Pieve, S. and Butler, F. (2009). Impact of high pressure processing on antioxidant activity, phenolic, ascorbic acid and anthocyanins of blackberry and strawberry puree. *Innov Food Sci Emerg Technol.*, **10**, 308–313.
- Patterson, M.F. and Stewart, E.M. (2003). Effect of gamma irradiation on the shelf-life and nutritional quality of ready-made meals. Radiation processing for safe, shelf-stable and ready-to-eat food, IAEA-TECDOC-1337, IAEA, Vienna; p. 47–61.

- Pawliszyn, J. (1995). New directions in sample preparation for analysis of organic compounds. *Trends Anal. Chem.*, **14**, 113–122.
- Pawliszyn, J. (2000). Theory of solid-phase microextraction. *J Chromatogra Sci.*, **38**, 270–278.
- Penalve, A., Pocurull, E., Borrull, F. and Marce, R.M. (1999). Trends in solid-phase microextraction for determining organic pollutants in environmental. *Trends Anal. Chem.*, **18**, 557–568.
- Percival, S.S., Talcott, S.T., Chin, S.T., Mallak, A.C., Lounds–Singleton, A. and Pettit–Moore, J. (2006a). Neoplastic transformation of BALB/3T3 cells and cell cycle of HL–60 cells are inhibited by mango (*Mangifera indica* L.) juice and mango juice extracts. *J Nutr.*, **136**, 1300–1304.
- Percival, S.S., Talcott, S.T., Chin, S.T., Mallak, A.C., Lounds–Singleton, A. and Pettit–Moore, J. (2006). Inhibition of neoplastic transformation and cancer cell cycle arrest by mango (*Mangifera indica*L.). *J Nutr.*, **136**, 1–5.
- Pereira, A.C.D.S., Dionisio, A.P., Wurlitzer, N.J., Alves, R.E., de Brito, E.S., e Silva, A.M.D.O., Brasil, I.M. and Filho, J.M. (2014). Effect of antioxidant potential of tropical fruit juices on antioxidant enzyme profiles and lipid peroxidation in rats. *Food Chem.*, **157**, 179–185.
- Perez, A.G. and Sanz, C. (2008). Formation of fruit flavor. In *Fruit and Vegetable Flavour*; Bruckner, B., Wyllie, S.G., Eds.; CRC Press: Boca Raton, FL, USA, pp. 71–102.
- Perez, A.G., Olias, R., Espada, J., Olias, JM. and Sanz, C. (1997). Rapid determination of sugars, nonvolatile acids, and ascorbic acid in strawberry and other fruits. *J. Agric. Food Chem.*, **45**, 3545–3549.
- Perez, A.G., Olias, R., Luaces, P. and Sanz, C. (2002). Biosynthesis of Strawberry Aroma Compounds through Amino Acid Metabolism. *J. Agric. Food Chem.*, **50**, 4037–4042.
- Perez, A.G., Rios, J.J., Sanz, C. and Olias, J.M. (1992). Aroma components and free amino acids in strawberry variety Chandler during ripening. *J. Agric. Food Chem.*, **40**, 2232–2235.
- Perez, D.D., Strobel,P., Foncea, R., Diez, M.S., Vasquez, L., Urquiaga, I., Castillo, O., Cuevas, A., Martin, A.S. and Leighton, F. (2002). Wine, diet, antioxidant defenses, and oxidative damage. Alcohol and wine in health and disease. *Ann NY Acad Sci.*, **957**, 136–145.

- Perlow, W., Baraona, E. and Lieber, C.S. (1977). Symptomatic intestinal disaccharidase deficiency in alcoholics. *Gastroenterology.*, **72**, 680–684.
- Perret, B., Ruidavets, J.B., Vieu, C., Jaspard, B., Cambou, J.P., Terce, F. and Collet, X. (2002). Alcohol consumption is associated with enrichment of high–density lipoprotein particles in polyunsaturated lipids and increased cholesterol esterification rate. *Alcohol Clin Exp Res.*, **26**, 1134–1140.
- Petroni, A., Blasevich, M., Salami, M., Papini, G.F., Montedoro, G.F. and Galli, C. (1995). Inhibition of platelet aggregation and eicosanoid production by phenolic components of olive oil. *Thromb Res.*, **78**, 151–160.
- Pietta, P., Simonetti, P., Gardana, C., Brusamolino, A., Morazzoni, P. and Bombardelli, E., (1998). Relationship between rate and extent of catechin absorption and plasma antioxidant status. *Biochem Mol Biol Int.*, **45**, 895–903.
- Pigeolet, E., Corbisier, P., Houbion, A., Lambert, D., Michiels, C., Raes, M., Zachary, M.D. and Ramacle, J. (1990). Glutathione peroxidase, superoxide dismutase and catalase inactivation by peroxides and oxygen derived free radicals, *Mech Age Dev.*, **51**, 283–297.
- Pilgrim, F.T. (1957). The components of food acceptance and their measurement. *Am J. Clin Nutr.*, **5**, 171–173.
- Pinn, A.B.O., Colli, C. and Mancini–Fiho, J. (1993). Beans (*Phaseolus vulgaris* L.) irradiation–iron bioavailability. Ber. Bundesforschungsanst für Ernährung. *BFE BERICHT*, **2**, 195–199.
- Pino, J., Rosado, A. and Sanchez, R. (1989). Volatile components of three cultivars of mango from Cuba. *Nahrung/Food.*, **33**, 709–715.
- Pino, J.A. and Mesa, J. (2006). Contribution of volatile compounds to mango (*Mangifera indica* L.) aroma. *Flavour Fragr. J.*, **21**, 207–213.
- Pino, J.A. and Queris, O. (2011). Analysis of volatile compounds of mango wine. *Food Chem.*, **125**, 1141–1146.
- Pino, J.A., Mesa, J., Munoz, Y., Marti, M.P., and Marbot, R. (2005). Volatile components from mango (*Mangifera indica* L.) cultivars. *J Agric Food Chem.*, **53**, 2213–2223.
- Plaa, G.L. and Hewitt, W.R. (1982). Detection and evaluation of chemical induced liver injury. In: Hayes AW (ed) Principles and methods of toxicology. Raven, New York, pp 407.

- Pluetz, R.C., Zentmyer, G.A., Nishijima, W.T., Rohrbach, K.G. and Ohr, H. D. (Eds.). (1994). Compendium of tropical fruit diseases (pp. 88). APS Press.
- Plutowska, B. and Wardencki, W. (2008). Application of gas chromatography– olfactometry (GC–O) in analysis and quality assessment of alcoholic beverages– A review. *Food Chem.*, **107**, 449–463.
- Polavarapu, R., Spitz, D.R., Sim, J.E., Follansbee, M.H., Oberley, L.W., Rahemtulla, A. and Nanji, A.A. (1998). Increased lipid peroxidation and impaired antioxidant enzyme function is associated with pathological liver injury in experimental alcoholic liver disease in rats diets high in corn oil and fish oil. *Hepatology.*, **27**, 1317–1323.
- Pourahmad, J., Eskandari, M.R., Shakibaei, R., Kamalinejad, M. (2010). A search for hepatoprotective activity of fruit extract of *Mangifera indica* L. against oxidative stress cytotoxicity. *Plant Food Hum Nutr.*, **65**, 83–89.
- Prabha, T.N. and Patwardhan, M.V. (1986). Endogenously oxidizable polyphenols of mango, sapota and banana. *Acta Alimentaria.*, **15**, 123–128.
- Prabhu, S., Jainu, M., Sabitha, K.E., Shyamala Devi, CS. (2006). Cardioprotective effect of mangiferin on isoproterenol induced myocardial infarction in rats. *Indian J. Exp Biol.*, **44**, 209–215.
- Prakasam, A., Sethupathy, S. and Puqalendi, K.V. (2005). Anti–peroxidative and antioxidant effects of *Casearia esculenta* root extract in streptozotocin–induced diabetic rats. *Yale J Biol Med.*, **78**, 15–23.
- Prakash, A., Manley, J., Decosta, S., Caporaso, F. and Foley, D. (2002). The effects of gamma irradiation on the microbiological, physical and sensory qualities of diced tomatoes. *Radiat. Phys. Chem.*, **63**, 387–390.
- Prakitchaiwattana, C.J, Fleet, G.H. and Heard, G.M. (2004). Application and evaluation of denaturing gradient gel electrophoresis to analyze the yeast ecology of wine grapes. *FEMS Yeast Res.*, **4**, 865–877.
- Prasad, S., Neetu, K. and Shukla, Y. (2007). Hepatoprotective effects of lupeol and mango pulp extract (MPE) of carcinogen induced alteration in Swiss albino mice. *Mol. Nutr. Food Res.*, **51**, 352–359.
- Pretorius, I.S. (2000). Tailoring wine yeast for the new millennium: novel approaches to the ancient art of wine-making. *Yeast.*, **16**, 675–729.
- Pretorius, I.S., Toit, M. and Rensburg, P. (2003) Designer Yeasts for the Fermentation Industry of the 21st Century. *Food Technol Biotechnol.*, **41**, 3–10.

- Price, S. (1997). Developing analytical tools for winemakers: Wine phenolic compounds and color. 1st International Colloquium Burgundy–California–Oregon, Dijon, France.
- Prior, R.L., Cao, G.H., Martin, A., Sofic, E., McEwen, J., O'Brien, C., Lischner, N., Ehlenfeldt, M., Kalt, W. and Krewer, G. (1998). Antioxidant capacity as influenced by total phenolic and anthocyanin content, maturity, and variety of *Vaccinium* species. *J. Agric. Food Chem.*, **46**, 2686–2693.
- Pronko, P., Bardina, L., Satanovskaya, V., Kuzmich, A. and Zitmakinalcohol, S. (2002). Effects of chronic alcohol consumption on ethanol and acetaldehyde metabolizing systems in rats gastrointestinal tract. *Alcohol Alcohol.*, **37**, 229–235.
- Puig, J.G. and Fox, I.H. (1984). Ethanol–induced activation of adenine nucleotide turnover– Evidence for a role of acetate. *J Clin Invest.*, **74**, 936–941.
- Punitha, I.S.R., Shirwaikar, A. and Shirwaikar, A. (2005). Antidiabetic activity of benzyl tetra isoquinoline alkaloid berberine in streptozotocin–nicotinamide induced type 2 diabetic rats. *Diabetologia Croatica.*, **34**, 117–128.
- Pushpakiran, G., Mahalakshmi, K. and Anuradha, C.V. (2004). Taurine restores ethanol–induced depletion of antioxidants and attenuates oxidative stress in rat tissues. *Amino Acids*, **27**, 91–96.
- Pyysalo, T., Suikho, M. and Honkanen, E. (1977). Odor thresholds of the major volatiles identified in cloudberry (*Rubus chamaemorus* L.) and artichoke (*Rubus articus* L.). *Lebensm. Wiss. Technol.*, **10**, 36–39.
- Qin, Y., Xia, M., Ma, J., Hao, Y., Liu, J., Mou, H., et al. (2009). Anthocyanin supplementation improves serum LDL– and HDL–cholesterol concentrations associated with the inhibition of cholesteryl ester transfer protein in dyslipidemic subjects. *Am J. Clin Nutr*, **90**, 485–492.
- Quijano, C.E., Salamanca, G. and Pino, J.A. (2007). Aroma volatile constituents of Colombian varieties of mango (*Mangifera indica* L.). *Flavour Fragr. J.*, **22**, 401–406.
- Rad, A.K., Ghazi, L., Boroushaki, M.T., Khooei, A., Keshavarzi, Z., Hosseini, S., Shafiee, S. and Havakhah, S. (2011). Effect of commercial (vimang) and hydroalcoholic extract of *Mangifera indica* (Mango) on gentamicin–induced nephrotoxicity in rat. *Avicenna J. Phytomed.*, **1**, 98–105.
- Rainieri, S. and Pretorius, I.S. (2000). Selection and improvement of wine yeasts. *Ann. Microbiol.*, **50**, 15–31.

- Raj, A., Praveen, K.V., Varghese, S., Mukkadan, J.K. and Joseph, P.K. (2009). Biochemical effects of feeding soft drink and ethanol. *Indian J. Exp Biol.*, **47**, 333–337.
- Rajakrishnan, V. and Menon, V.P. (2001). Potential role of antioxidants during ethanol induced changes in the fatty acid composition and arachidonic acid metabolites in male Wistar rats. *Cell Biol Toxicol.*, **17**, 11–22.
- Rajdl, D., Racek, J., Trefil, L. and Siala, K. (2007). Effect of white wine consumption on oxidative stress markers and homocysteine levels. *Physiol Res.*, **56**, 203–212.
- Ramteke, R.S., Dhanaraj, S., Eipeson, W.S. (1991). Sensory quality studies on mango aroma concentrate during storage. *J. Sens Stud.*, **6**, 193–203.
- Rapp, A. and Mandery, H. (1986). Wine aroma. New progress in vine and wine research. *Experientia.*, **42**, 873–884.
- Rapp, A. and Versini, G. (1991). Influence of nitrogen compounds in grapes on aroma compounds of wine. In *Proceedings of the International Symposium on Nitrogen in Grapes and Wines*, eds W. A. Seattle and J. Rantz. American Society for Enology and Viticulture, Davis, California, pp. 156–164.
- Raspor, P., Milek, D.M., Polanc, J., Mozina, S. and Cadez, N. (2006). Yeasts isolated from three varieties of grapes cultivated in different locations of the Dolenjska vine-growing region, Slovenia. *Int J Food Microbiol.*, **109**, 97–102.
- Raucy, J.L., Lasker, J.M., Kramer, J.C., Salazer, D.E., Lieber, C.S. and Corcoran, G.B. (1991). Induction of P450IIE1 in the obese rat. *Mol. Pharmacol.*, **39**, 275–280.
- Recamales, A., Sayago, A., Gonzalez–Miret, M. and Herranz, D. (2006). The effect of time and storage conditions on the phenolic composition and colour of white wine. *Food Res. Int.*, **39**, 220–229.
- Reddy, L.V.A. and Reddy, O.V.S. (2005). Production and characterization of wine from mango fruit (*Mangifera indica* L.). *World J Microbiol Biotechnol.*, **21**, 1345–1350.
- Reddy, L.V.A. and Reddy, O.V.S. (2009). Effect of enzymatic maceration on synthesis of higher alcohols during mango wine fermentation. *J Food Quality.*, **32**, 34–47.
- Reddy, L.V.A. and Reddy, O.V.S. (2011). Effect of fermentation conditions on yeast growth and volatile composition of wine produced from mango (*Mangifera indica* L.) fruit juice. *Food Bioprod Process.*, **89**, 487–491.
- Reddy, L.V.A., Kumar, Y.S. and Reddy, O.V.S. (2010) Analysis of volatile aroma constituents of wine produced from Indian mango (*Mangifera indica* L.) by GC-MS. *Indian J Microbiol.*, **50**, 183–191.

- Rehm, J.T., Bondy, S.J., Sempos, C.T. and Vuong, C.V. (1997). Alcohol consumption and coronary heart disease mortality and morbidity. *Am J Epidemiol.*, **146**, 495–501.
- Reineccius, G. (2006). *Flavor Chemistry and Technology*, 2nd ed.; CRC Press: Boca Raton, FL, USA.
- Reinke, L.A. (2002). Spin trapping evidence for alcohol-associated oxidative stress. *Free Rad Biol Med.*, **32**, 953–957.
- Reinke, L.A., Moore, D. R., Hague, C.M. and Mc Coy, P.B. (1994). Metabolism of ethanol to 1-hydroxyethyl radicals in rat liver microsomes—comparative studies with three spin trapping agents, *Free Rad Res.*, **21**, 213–222.
- Rementeria, A., Rodriguez, J.A., Cadaval, A., Amenabar, R., Muguruza, J.R., Hernando, F.L. and Sevilla, M.J. (2003). Yeast associated with spontaneous fermentations of white wines from the “Txakoli de Bizkaia” region (Basque Country, North Spain). *Int J Food Microbiol.*, **86**, 201–207.
- Renaud, S. and de Lorgeril, M. (1992). Wine, alcohol, platelets and the French paradox for coronary heart disease. *Lancet.*, **339**, 1523–1526.
- Resurreccion, A.V.A. (1998). The consumer panel, in: consumer testing for product development. Aspen Publishers, Gaithersburg, MD, pp. 71–91.
- Revilla, E. and Ryan, J.M. (2000). Analyses of several phenolic compounds with potential antioxidant properties in grape extracts and wines by high performance liquid chromatography–Photodiode Array Detection without Sample Preparation. *J. Chromatogr A*, **881**, 461–469.
- Ribeiro, S.M.R. (2006). Mango (*Mangifera indica* L.) Antioxidant potential of mangoes: Characterization and Evaluation. Ph.D Thesis – Federal University of Vic-osa, Vic-osa, Brazil.
- Ribeiro, S.M.R. and Schieber, A. (2010). Bioactive compounds in mango (*Mangifera indica* L.), in: Watson, R.R., Preedy, V.R. (Eds.), Bioactive Foods in Promoting Health: Fruits and Vegetables. Academic Press, UK, London, pp. 507–523.
- Ribeiro, S.M.R., Queiroz, J.H., Lopes, M.E.L.R., Milagres, F.C. and Pinheiro-Sant’Ana, H.M. (2007). Antioxidant in mango (*Mangifera indica* L) pulp. *Plant Food Hum Nutr.*, **62**, 13–17.
- Ribereau-Gayon, P., Dubourdieu, D., Doneche, B. and Lonvaud, A. (2000a). Handbook of Enology, Vol 1: The microbiology of wine and vinifications. John Wiley and Sons, LTD, New York, USA.

- Ribereau–Gayon, P., Glories, Y., Maujean, A. and Dubourdieu, A. (2000b). Handbook of enology, Vol. 2: The chemistry of wine stabilization and treatments. John Wiley and Sons, LTD, New York, USA.
- Rice–Evans, C.A., Miller, N.J. and Paganga, G. (1997). Antioxidant properties of phenolic compounds. *Tr Pla Sci.*, **2**, 152–159.
- Rivas, A., Rodrigo, D., Martinez, A., Barbosa–Canovas, G.V. and Rodrigo, M. (2006). Effect of PEF and heat pasteurization on the physical–chemical characteristics of blended orange and carrot juice. *Food Sci Technol.*, **39**, 1163–1170.
- Rivero–Perez, M.D., Gonzalez–Sanjose, M.L. and Muniz, P. (2007). Antioxidant profile of red wines evaluated by total antioxidant capacity, scavenger activity, and biomarkers of oxidative stress methodologies. *J Agric Food Chem.*, **55**, 5476–5483.
- Robles–Sanchez, M., Astiazaran–Garcia, H., Martin–Belloso, O., Gorinstein, S., Alvarez–Parrilla, E., de la Rosa, L.A., Yepiz–Plascencia, G. and Gonzalez–Aguilar, G.A. (2011). Influence of whole and fresh–cut mango intake on plasma lipids and antioxidant capacity of healthy adults. *Food Res Int.*, **44**, 1386–1391.
- Roche, L.D. and Perez, A.F. (2012). Protective effects of *Mangifera indica* L. extract against lipofundin–induced oxidative stress in rats. *Pharmaceutical Crops.*, **3**, 94–98.
- Rodrigo, R., Castillo, R., Carrasco, R., Huerta, P. and Moreno, M. (2005). Diminution of tissue lipid peroxidation in rats is related to the in vitro antioxidant capacity of wine. *Life Sciences*, **76**, 889–900.
- Rodrigo, R., Rivera, G., Orellana, M., Araya, J. and Bosco, C. (2002). Rat kidney antioxidant response to long–term exposure to flavonol rich red wine. *Life Sci.*, **24**, 2881–2895.
- Roig, R., Cascon, E., Arola, L., Blade, C. and Salvado, M.J. (1999). Moderate red wine consumption protects against oxidation *in vivo*. *Life Sci.*, **17**, 1517–1524.
- Romano, P. and Suzzi, P. (1993). Sulfur dioxide and wine microorganisms. In: Fleet GH, (Eds). Wine microbiology and biotechnology. Harwood Academic Publishers; pp. 373–93.
- Romano, P., Fiore, C., Paraggio, M., Caruso, M. and Capece, A. (2003) Function of yeast species and strains in wine flavour. *Int J Food Microbiol.*, **86**, 169–180.
- Romano, P., Suzzi, G., Comi, G. and Zironi, R., (1992). Higher alcohol and acetic acid production by apiculate wine yeasts. *J Appl Bacteriol.*, **73**, 126–130.

- Romano, P., Suzzi, G., Comi, G., Zironi, R. and Maifreni, M. (1997). Glycerol and other fermentation products of apiculate wine yeasts. *J App Microbiol.*, **82**, 615–618.
- Ron, S.J. (2000). Wine science; principle, practice, perception (2nd ed.). Sandiago: Academic press.
- Ronis, M.J.J., Butura, A., Sampey, B.P., Prior, R.L, Korourian, S., Albano, E., Ingelman–Sundberg, M., Petersen, D.R. and Badger, T.M. (2005). Effects of N–acetyl cysteine on ethanol–induced hepatotoxicity in rats fed via total enteral nutrition. *Free Radic Biol Med.*, **36**, 616–630.
- Ronis, M.J.J., Lindros, K.O. and Ingelman–Sundberg, M. (1996). The CYP2E family. In Cytochromes P450: Metabolic and Toxicological Aspects, (Ioannides, C. editor). Boca Raton, FL: CRC Press. pp. 211–239.
- Rosalki, S.B. and Rau, D. (1972). Serum–glutamyl transpeptidase activity in alcoholism. *Clin Chim Acta.*, **39**, 41–47.
- Rosati, C., Diretto, G. and Giuliano, G. (2009). Biosynthesis and Engineering of Carotenoids and Apocarotenoids in Plants: State of the Art and Future Prospects. *Biotech. Genet. Eng. Rev.*, **26**, 151–174.
- Rosenkranz, S., Knirel, D., Dietrich, H., Flesch, M., Erdmann, E. and Bohm, M. (2002). Inhibition of the PDGF receptor by red wine flavonoids provides a molecular explanation for the ‘‘French paradox’’. *FASEB J.*, **16**, 192–211.
- Rosman, A.S. and Lieber, C. (1994). Diagnostic utility of laboratory tests in alcoholic liver disease. *Clin Chem.*, **40**, 1641–1651.
- Ross, I.A. (2003). Medicinal plants of the world: Chemical constituents, traditional medicinal uses. Totowa, NJ, Humana Press Inc. Pp. 315–328.
- Rouach, H., Fataccioli, V., Gentil, M., French, S.W., Morimoto, M. and Nordmann, R. (1997). Effect of chronic ethanol feeding on lipid peroxidation and protein oxidation in relation to liver pathology. *Hepatology*, **25**, 351–355.
- Rouault, T.A. (2003). Hepatic iron overload in alcoholic liver disease: why does it occur and what is its role in pathogenesis? *Alcohol*, **30**, 103–106.
- Rozenberg, O., Shih, D.M. and Aviram, M. (2003). Human serum paraoxonase 1 decreases macrophage cholesterol biosynthesis–possible role for its phospholipase–A(2)–like activity and lysophosphatidylcholine formation. *Ather Thromb Vasc Biol.*, **23**, 461–467.
- Rubio, A., Rambla, J.L., Santaella, M., Gomez, M.D., Orzaez, D., Granell, A. and Gomez–Gomez, L. (2008). Cytosolic and plastoglobule–targeted carotenoid dioxygenases from

- Crocus sativus* are both involved in betaionone release. *J. Biol. Chem.*, **283**, 24816–24825.
- Sadoughi, N., Karim, R., Hashim, D.M., Zainuri, A. and Ghazali, H.M. (2012). Effect of γ -irradiation on the physicochemical properties, and microbial and sensory qualities of cold-stored onion puree. *J. Food Process Pres.*, **37**, 889–898.
- Sadrzadeh, S.M.H., Hallaway, P.E. and Nanji, A.A. (1997). The longacting parenteral iron chelator hydroxyethylstarch–desferoxamine fails to protect against alcohol-induced liver injury in rats. *J. Pharmacol Exp Ther.*, **280**, 1038–1042.
- Sadrzadeh, S.M.H., Meydani, M., Khettry, U. and Nanji, A.A. (1995). High-dose vitamin E supplementation has no effect on ethanolinduced pathological liver injury. *J. Pharmacol Exp Ther.*, **273**, 455–460.
- Sahitya chetan, P., Shanmugam, R.K., Sangeetha lakshmi, R., Pavan, N.K., Saritha, P., Murali mohan, P. and Rajendra, W. (2012). Alterations in antioxidant enzyme activities and oxidative damage in alcoholic rat tissues: Protective role of *Thespesia populnea*. *Food Chem.*, **132**, 150–159.
- Sakar, S.N., Chattopadhyay, S.K., Majmudar, A.C. (1995). Sub-acute toxicity of urea herbicide, isoproturon in male rats. *Ind J Exp Biol.*, **33**, 851–856.
- Sakho, M., Chassagne, D. and Crouzet, J. (1997). African mango glycosidically bound volatile compounds. *J. Agric. Food Chem.*, **45**, 883–888.
- Saleh, N.A.M and El-Ansari, M.A., (1975). Polyphenolics of twenty local varieties of *Mangifera indica*. *Planta Medica.*, **28**, 124–130.
- Salmela, K.S., Kessova, I.G., Tsyrllov, I.B. and Lieber, C.S. (1998). Respective roles of human cytochrome P450E1, 1A2, and 3A4 in the hepatic microsomal ethanol oxidizing system. *Alcohol Clin. Exp. Res.*, **22**, 2125–2132.
- Santamaria, P., Lopez, R., Gutierrez, R. and Garcia-Escudero, E. (1995) Evolution des acides gras totaux pendant la fermentation a differents temperatures. *J Int Sci Vigne Vin.*, **29**, 101–104.
- Santos-Buelga, C. and Scalbert, A. (2000). Proanthocyanidins and tannin-like compounds: nature, occurrence, dietary intake and effects on nutrition and health. *J Sci Food Agric.*, **80**, 1094–1117.
- Sanz, C., Olias, J.M. and Perez, A.G. (1997). Aroma biochemistry of fruits and vegetables. In *Phytochemistry of Fruit and Vegetables*; Oxford University Press Inc.: New York, NY, USA, pp. 125–155.

- Saroswat, B., Visen, P.K., Patnalik, G.K. and Dhawan, B.N. (1993). Anticholestatic effect of picroliv, active hepatoprotective principle of *Picrorhizza kurrooa*, against carbon tetrachloride induced cholestasis. *Ind J. Exp Biol.*, **31**, 316–318.
- Sarry, J.E. and Gunata, Z. (2004). Plant and microbial glycoside hydrolases: Volatile release from glycosidic aroma precursors. *Food Chem.*, **87**, 509–521.
- Sasaki, T. and Matsui, S. (1972). Effect of acetic acid concentration on the colour reaction in the O–toluidine–boric acid method for blood glucose determination. *Rinsho Kagaku*, **1**, 346–353.
- Sasidharan, I. and Menon, A.N. (2011). Effects of temperature and solvent on antioxidant properties of curry leaf (*Murraya koenigii* L.). *J. Food Sci Technol.*, **48**, 366–370.
- Sato, C., Nakano, M. and Lieber, C.S. (1981). Increased hepatotoxicity of acetaminophen after chronic ethanol consumption in the rat. *Gastroenterology*, **80**, 140–148.
- Sauco, V.G. (2004). Mango production and world market: Current situation and future prospects. *Acta Horticulturae.*, **1**, 107–116.
- Saxena, S., Hajare, S.N., More, V., Kumar, S., Wadhawan, S., Mishra, B.B., Parte, M.N., Gautam, S. and Sharma, A. (2011) Antioxidant and radioprotective properties of commercially grown litchi (*Litchi chinensis*) from India. *Food Chem.*, **126**, 39–45.
- Scalbert, A. and Williamson, G. (2000). Dietary intake and bioavailability of polyphenols. *J Nutr.*, **130**, 2073–2085.
- Scalbert, A., Manach, C., Morand, C. and Remesy, C. (2005). Dietary polyphenols and the prevention of diseases. *Crit Rev Food Sci Nutr.*, **45**, 1–20.
- Schieber, A., Berardini, N. and Carle, R. (2003). Identification of flavonols and xanthan glycosides from Mango (*Mangifera indica* L. cv. Tommy Atkins) peels by high performance liquid chromatography–electrospray ionization mass spectrometry. *J Agri Food Chem.*, **51**, 5006–5011.
- Schieber, A., Ullrich, W. and Carle, R. (2000). Characterization of polyphenols in mango puree concentrates by HPLC with diode array and mass spectrometric detection. *Innov Food Sci Emerg Technol.*, **1**, 161–166.
- Schreier, P. (1984). *Chromatographic Studies on Biogenesis of Plant Volatiles*. Heidelberg: Dr Alfred Huthing Verlag, Germany.
- Schultz, H. (1965). A food action scale for measuring food acceptance. *J Food Sci.*, **30**, 365–374.

- Schwab, W. and Schreier, P. (2002). Enzymic formation of flavor volatiles from lipids. In *Lipid Biotechnology*; Kuo, T.M., Gardner, H.W., Eds.; Marcel Dekker: New York, NY, USA, pp. 293–318.
- Schwab, W., Davidovich–Rikanati, R. and Lewinsohn, E. (2008). Biosynthesis of plant–derived flavor compounds. *Plant J.*, **54**, 712–732.
- Schwartz, S.H., Qin, X. and Loewen, M.C. (2004). The biochemical characterization of two carotenoid cleavage enzymes from *Arabidopsis* indicates that a carotenoid–derived compound inhibits lateral branching. *J. Biol. Chem.*, **279**, 46940–46945.
- Scott, R.B., Reddy, K.S., Husain, K., Schlorff, E.C., Rybak, L.P. and Somani, S.M. (2000). Dose response of ethanol on antioxidant defense system of liver, lung, and kidney in rat *Pathophysiol.*, **7**, 25–32.
- Scrinis, G. (2008). Functional foods or functionally marketed foods? A critique of, and alternative to, the category of ‘functional foods’. *Public Health Nutr.*, **11**, 541–545.
- Selli, S., Canbas, A., Varlet, V., Kelebek, H., Prost, C. and Serot, T. (2008). Characterization of the most odor–active volatiles of orange wine made from a Turkish cv. Kozan (*Citrus sinensis* L. Osbeck). *J Agri Food Chem.*, **56**, 227–234.
- Seo, H.Y., Kim, J.H., Song, H.P., Kim, D.H., Byun, M.W., Kwon, J.H. and Kim, K.S. (2007). Effects of gamma irradiation on the yields of volatile extracts of *Angelica gigas* Nakai. *Radiat. Phys. Chem.*, **76**, 1869–1874.
- Sergent, O., Griffon, B., Morel, I., Chevanne, M., Dubus, M.P., Cillard, P. and Cillard, J. (1997). Effect of nitric oxide on iron–mediated oxidative stress in primary hepatocyte culture. *Hepatology*, **23**, 122–127.
- Shahbaz, H.M., Ahn, J.J., Akram, K., Kim, H.Y., Park, E.J. and Kwon, J.H. (2014). Chemical and sensory quality of fresh pomegranate fruits exposed to gamma radiation as quarantine treatment. *Food Chem.*, **145**, 312–318.
- Shahidi, F., Janitha, P.K. and Wanasundara, P.D. (1992). Phenolic antioxidants. *Crit Rev Food Sci Nutr.*, **32**, 67–103.
- Shahjahan, M.K., Sabitha, J.M. and Shyamala–Devi, C.S. (2004). Effect of *Solanum trilobatum* against carbon tetrachloride induced hepatic damage in albino rats. *Indian J Med Res.*, **120**, 194–198.
- Shalit, M., Guterman, I., Volpin, H., Bar, E., Tamari, T., Menda, N., Adam, Z., Zamir, D., Vainstein, A., Weiss, D., et al. (2003). Volatile ester formation in roses: Identification of

- an acetyl-CoA: Geraniol acetyltransferase in developing rose petals. *Plant Physiol.*, **131**, 1868–1876.
- Shanmugam, K.R., Mallikarjuna, K. and Sathyavelu Reddy, K. (2011a). Effect of alcohol on blood glucose and antioxidant enzymes in the liver and kidney of diabetic rats. *Indian J Pharmacol.*, **43**, 330–335.
- Shanmugam, K.R., Mallikarjuna, K., Nishanth, K., Chen, C.Y., Kuo, C.H. and Sathyavelu reddy, K. (2011b). Ginger feeding protects against renal oxidative damage caused by alcohol consumption in rats. *J. Ren Nutr.*, **21**, 263–270.
- Shanmugam, K.R., Ramakrishna, C.H., Mallikarjuna, K. and Sathyavelu Reddy, K. (2009). Perturbation in kidney lipid metabolic profiles in diabetic rats with reference to alcoholic oxidative stress. *Indian J. Nephrol.*, **19**, 101–106.
- Shanrzd, S. and Bitsch, I. (1998). Determination of gallic acid and its metabolites in human plasma and urine by high–performance liquid chromatography. *J. Chromatogr. Biomed. Sci. Appl.*, **705**, 87–95.
- Sharma, A., Gautam, S. and Jadhav, S.S. (2000). Spice extracts as dose–modifying factors in radiation inactivation of bacteria. *J. Agric. Food Chem.*, **48**, 1340–1344.
- Shen, S.C., Lee, W.R., Lin, H.Y., Huang, H.C., Ko, C.H., Yang, L.L. and Chen, Y.C. (2002). In vitro and in vivo inhibitory activities of rutin, wogonin, and quercetin on lipopolysaccharide–induced nitric oxide and prostaglandin E2 production. *Eur J. Pharmacol.*, **446**, 187–194.
- Shibamoto, T. and Tang, C.S. (1990). “Minor” tropical fruit mango, papaya, passion fruit, and guava. In *Food Flavours: Part C: The Flavour of Fruit*; Morton, I.D., MacLeod, A.J., Eds.; Elsevier: Amsterdam, The Netherlands, pp. 221–234.
- Shih, Y., Thompson, L.D., Hoover, L.C., Wu, C. and Park, O. (2002). The impact of initial chilling of cantaloupe on shelf life: A back of the house issue. Proceedings of the 8th Graduate Education & Graduate Student Research Conference in Hospitality and Tourism, 608–610.
- Siddhuraju, P., Makkar, H.P.S. and Becker, K. (2002). The effect of ionizing radiation on antinutritional factors and the nutritional value of plant materials with reference to human and animal food. *Food Chem.*, **78**, 187–205.
- Sierksma, A., van der Gaag, W.S., Klufft, S. and Hendriks, H.F.J. (2002b). Moderate alcohol consumption reduces plasma C–reactive protein and fibrinogen levels; a randomized, diet–controlled intervention study. *Eur J Clin Nutr.*, **56**, 1130–1136.

- Sierksma, A., van der Gaagt, M.S., van Tol, A., James, R.W. and Hendriks, H.F.J. (2002a) Kinetics of HDL cholesterol and paraoxonase activity in moderate alcohol consumers. *Alcohol Clin Exp Res.*, **26**, 1430–1435.
- Sigler, K. and Ruch, R.J. (1993). Enhancement of gap junctional intercellular communication in tumor promoter-treated cells by components of green tea. *Cancer Lett.*, **69**, 15–19.
- Sillanaukee, P., Koivula, T., Jokela, H., Pitkajarvi, T. and Seppa, K. (2000). Alcohol consumption and its relation to lipid based cardiovascular risk factors among middle-aged women: the role of HDL3 cholesterol. *Atherosclerosis.*, **152**, 503–510.
- Simkin, A.J., Schwartz, S.H., Auldridge, M., Taylor, M.G. and Klee, H.J. (2004a). The tomato carotenoid cleavage dioxygenase 1 genes contribute to the formation of the flavor volatiles beta-ionone, pseudoionone, and geranylacetone. *Plant J.*, **40**, 882–892.
- Simkin, A.J., Underwood, B.A., Auldridge, M., Loucas, H.M., Shibuya, K., Schmelz, E., Clark, D.G. and Klee, H.J. (2004b). Circadian regulation of the *PhCCD1* carotenoid cleavage dioxygenase controls emission of beta-ionone, a fragrance volatile of petunia flowers. *Plant Physiol.*, **136**, 3504–3514.
- Singer, J.S. and Kaplan, M.M. (1978). Ethanol depresses rat liver gammaglutamyl transpeptidase. *Gastroenterol.*, **74**, A 1095.
- Singh, B., Chandan, B.K., Prabhakar, A., Taneja, J., Singh, J. and Qazi, N. (2005). Chemistry and hepatoprotective activity of an active fraction from *Barteria prionitis* Linn in experimental animals. *Phytother Res.*, **19**, 391–404.
- Singh, H. (1990). Chemical aspects of irradiated mangoes: A review; Atomic Energy of Canada Ltd., 10186 Pinawa Manitoba RDE 1LO (Canada). Whiteshell Nuclear Research Establishments, June.
- Singh, I. (1992). Textbook of human histology. 2nd edition, New Delhi, Jaypee Publishers, India.
- Singleton, V.L and Rossi, J.A. Jr. (1965). Colorimetry of total phenolics with phosphomolybdic–phosphotungstic acid reagents. *Amer J Enol Viticult.*, **16**, 144–58.
- Singleton, V.L. (1982). Grape and wine phenolics; background and prospects. In: Grape and Wine Centennial Symposium, Proceedings of the University of California, Davis, 215–227.

- Sirisakulwat, S., Nagel, A., Sruamsiri, P., Carle, R., and Neidhart, S. (2008). Yield and quality of pectins extractable from the peels of Thai mango cultivars depending on fruit ripeness. *J Agric Food Chem.*, **56**, 10727–10738.
- Slatter, D.A., Bolton, C.H., Bailey, A.J., 2000. The importance of lipid-derived malondialdehyde in diabetes mellitus. *Diabetologia*, **43**, 550–557.
- Snyder, S.H., Sklar, P.B. and Pevsner, J. (1988). Molecular mechanism of olfaction. *J Biol Chem.*, **263**, 13971–13974.
- Soleas, G.J., Diamandis, E.P. and Goldberg, D.M. (1997a). Wine as a biological fluid: history, production and role in disease prevention. *J. Clin Lab Anal.*, **11**, 287–313.
- Soleas, G.J., Tomlinson, G., Diamandis, E.P. and Goldberg, D.M. (1997b). Relative contribution of polyphenolic constituents to the antioxidant status of wines: Development of a predictive model. *J Agri Food Chem.*, **45**, 3995–4003.
- Somani, S.M., Husain, K., Diaz–Phillips, L., Lanzotti, D.J., Karati, K.R. and Trammel, G. L. (1996). Interaction of exercise and ethanol on antioxidant enzymes in brain regions of rat, *Alcohol.*, **13**, 603–610.
- Sommer, P., Bunte, A., Stolpe, E. and Kaldahl, P. (2007). Flavour enhancement by use of mixed yeast starter cultures of *Torulaspora delbrueckii*, *Kluyveromyces thermotolerans* and *Saccharomyces cerevisiae* in wine. 8th International Symposium Innovations in Enology, Stuttgart, Pp. 282–283.
- Somogyi, M. (1952). Notes on sugar determination. *J. Biological Chem.*, **195**, 19–23.
- Song, H., Byun, M., Jo, C., Lee, C., Kim, K. and Kim, D. (2007). Effects of gamma irradiation on the microbiological, nutritional, and sensory properties of fresh vegetable juice. *Food Contr.*, **18**, 5–10.
- Song, H.P, Kim, D.H., Jo, C., Lee, C.H., Kim, K.S. and Byun, M.W. (2006). Effect of gamma irradiation on the microbiological quality and antioxidant activity of fresh vegetable juice. *Food Microbiol.*, **23**, 372–378.
- Song, J. and Bangerth, F. (2003). Fatty acids as precursors for aroma volatile biosynthesis in pre climacteric and climacteric apple fruit. *Postharvest Biol. Technol.*, **30**, 113–121.
- Song, J. and Forney, C.F. (2008). Flavour volatile production and regulation in fruit. *Can. J. Plant Sci.*, **88**, 537–550.
- Song, J., Fan, L. and Beaudry, R.M. (1998). Application of solid phase microextraction and gas chromatography/time-of-flight mass spectrometry for rapid analysis of flavor volatiles in tomato and strawberry fruits. *J Agri Food Chem.*, **46**, 3721–3726.

- Song, M.S., Kim, D.G. and Lee, S.H. (2005). Isolation and characterization of a jasmonic acid carboxyl methyltransferase gene from hot pepper (*Capsicum annuum* L.). *J. Plant Biol.*, **48**, 292–297.
- Soong, Y. and Barlow, J. (2004). Antioxidant activity and phenolic content of selected fruit seeds. *Food Chem.*, **88**, 411–417.
- Soumalainen, H. (1981). Yeast esterases and aroma esters in alcoholic beverages. *J Inst Brew.*, **87**, 296–300.
- Souza, M.D. and Mastro, N.L.D. (2004). Effect of gamma–radiation on sugar cane spirit. *Brazilian J. Food Technol.*, **7**, 9–15.
- Speisky, H., MacDonald, A., Giles, G., Orrego, H. and Israel, Y. (1985). Increased loss of decreased synthesis of hepatic glutathione after acute ethanol administration. *Biochem. J.* **225**, 565.
- Spencer, J.F.T. and Spencer, D.M. (1997). *Yeasts in Natural and Artificial Habitats*. Springer–Verlag Berlin Heidelberg. Pp 381.
- Splittstoesser, D.F. (1982). Microorganisms involved in the spoilage of fermented fruit juice. *J Food Protect.*, **45**, 874–877.
- Sreejayan, and Rao, M.N.A. (1997). Nitric oxide scavenging by curcuminoids. *J Pharm Pharmacol.*, **49**, 105–107.
- Staal, G.E.J., Visser, J. and Veeger, C. (1969). Purification and properties of glutathione reductase of human erythrocytes. *Biochim Biophys Act.*, **185**, 39–48.
- Stajner, D., Milosevic, M. and Popovic, B.M. (2007). Irradiation effect on phenolic content, lipid and protein oxidation and scavenger ability of Soybean seeds. *Int J Mol Sci.*, **8**, 618–627.
- Stashenko, H., Macku, C. and Shibamoto, T. (1992). Monitoring volatile chemicals formed from must during yeast fermentation. *J. Agric Food Chem.*, **40**, 2257–2259.
- Stumpe, M. and Feussner, I. (2006). Formation of oxylipins by CYP74 enzymes. *Phytochem. Rev.*, **5**, 347–357.
- Suarez, B., Palacios, N., Fraga, N. and Rodriguez, R. (2005). Liquid Chromatographic Method for Quantifying Polyphenols in Ciders by Direct Injection. *J. Chromatogr A.*, **1066**, 105–110.
- Sumner, M.D., Elliott–Eller, M., Weidner, G., Daubenmier, J.J., Chew, M.H., Marlin, R., Raisin, C.J. and Ornish, D. (2005). Effects of pomegranate juice consumption on

- myocardial perfusion in patients with coronary heart disease. *Am. J. Cardiol.*, **96**, 810–814.
- Suter, P.M. and Vetter, W. (1999). Alcohol and ischemic stroke. *Nutr Rev.*, **57**, 310–314.
- Suzuki, M., Fujimoto, Y., Suzuki, Y., Hosoki, Y., Saito, H., Nakayama, K., Ohtake, T. and Kohgo, Y. (2004). Induction of transferrin receptor by ethanol in rat primary hepatocyte culture. *Alcohol Clin Exp Res.*, **28**, 98–105.
- Swiegers, J.H. and Pretorius, I.S. (2005). Yeast modulation of wine flavour. *Adv Appl Microbiol.*, **57**, 131–175.
- Swiegers, J.H., Bartowsky, E.J., Henschke, P.A. and Pretorius, I.S. (2005). Yeast and bacterial modulation of wine aroma and flavour. *Aust J Grape Wine Res.*, **11**, 139–173.
- Takahashi, T., Lasker, J.M., Rosman, A.S., Lieber, C.S. (1993). Induction of P450E1 in human liver by ethanol is due to a corresponding increase in encoding mRNA. *Hepatology*, **17**, 236–245.
- Talcott, S.T., Moore, J.P., Lounds–Singleton, A.J. and Percival, S.S. (2005). Ripening associated phytochemical changes in mangoes (*Mangifera indica*) following thermal quarantine and low temperature storage. *J. Food Sci.*, **70**, 337–341.
- Tavaria, F.K., Dahl, S., Carballo, F.J. and Malcata, F.X. (2002). Amino acid catabolism and generation of volatiles by lactic acid bacteria. *J. Dairy Sci.*, **85**, 2462–2470.
- TehraniFar, A., Zarei, M., Nemati, Z., Esfandiyari, B. and Vazifeshenas, M.R. (2010). Investigation of physico–chemical properties and antioxidant activity of twenty Iranian pomegranate (*Punica granatum* L.) cultivars. *Scientia Horticulturae*, **126**, 180–185.
- Tellez, J. and Cote, M. (2006). Ethyl alcohol: a toxic risk to human health is socially acceptable. *Revista Facultad de Medicina de la Universidad Nacional de Colombia*. **54**, 32–47.
- Temple, N.J. (2000). Antioxidants and disease: More questions than answers. *Nutr Res.*, **20**, 449–459.
- Tennant, B.C. (1999). Assessment of hepatic function. In: *Clinical biochemistry of laboratory animals*, Ed. Loeb, W.F., Quimby F.W. Taylor and Francis, London, pp. 501–517.
- Teschke, R., Moreno, F. and Petrides, A.S. (1981). Hepatic microsomal ethanol oxidizing system (MEOS) respective role of ethanol and carbohydrates for the enhanced activity after chronic alcohol consumption. *Biochem. Pharmacol.*, **30**, 45–51.

- Thanaraj, T., Terry, L.A. and Bessant, C. (2009). Chemometric profiling of pre-climacteric Sri Lankan mango fruit (*Mangifera indica* L.). *Food Chem.*, **112**, 786–794.
- Tharanathan, R.N., Yashoda, H.M. and Prabha T.N. (2006). Mango (*Mangifera indica* L.), “The king of fruits”-An overview. *Food Rev Int.*, **22**, 95–123.
- Thayer**, D.W. and **Rajkowski**, K.T. (1999). Development in irradiation of fresh fruits and vegetables. *Food Technol.*, **53**, 62–65.
- Thomas, A.C. and Beers, M. (1979). γ -Irradiation of subtropical fruits. 3- A comparison of the chemical changes occurring during normal ripening of mangoes and papayas with changes produced by γ - irradiation. *J. Agric. Food Chem.*, **27**, 157–163.
- Thomas, K.C. and Ingledew, W.M. (1992). Production of 21% (v/v) ethanol by fermentation of very high gravity (VHG) wheat mashes. *J Ind Microbiol. Biotechnol.*, **10**, 61–68.
- Thorhgate, J.H. (1998). Yeast strain and wine flavor: nature or nurture. In: Waterhouse, A.L. and Ebeler, E.E, editors. Chemistry of wine flavor. Washington, DC: Oxford University Press, Pp. 66–80.
- Thurman, R. (1998). Mechanism of hepatic toxicity. II. Alcoholic liver injury involves activation of Kupffer cells by endotoxin. *Am J Physiol Gastrointestinal Liv Physiol.*, **275**, 605–611.
- Thyagaraju, K., Devi, K.N., Hildenbrandt, G.R. and Reddy, C.C. (1994). The characterization of glutathione-S-transferase δ isozyme of rat brain. *Ind. J. Comp. Animal Physiol.*, **12**, 1–8.
- Tjiptono, P., Lam, P.E. and Mendoza, D.B. (1984). Status of the mango industry in ASEA. ASEAN Food Handling Bureau, 1–11.
- Torrea, D., Fraile, P., Garde, T. and Ancin, C. (2003). Production of volatile compounds in the fermentation of Chardonnay musts inoculated with two strains of *Saccharomyces cerevisiae* with different nitrogen demands. *Food Control.*, **14**, 565–571.
- Torunn, S., Siv, F.R. and Kare, A.L. (2009). Total antioxidant activity in 35 Ugandan fruits and vegetables. *Food Chem.*, **113**, 85–91.
- Tournas, V.H., Heeres, J. and Burgess, L. (2006). Moulds and yeasts in fruit salads and fruit juices. *Food Microbiol.*, **23**, 684–688.
- Trinder, P. (1969). Determination of Blood Glucose using an Oxidaseperoxidase System with a Non-carcinogenic Chromogen. *J. Clin. Path.*, **22**, 158–161.
- Trinh, T.T.T., Woon, W.Y., Yu, B., Curran, P. and Liu, S.Q. (2010). Effect of L-isoleucine and L-phenylalanine addition on aroma compound formation during longan juice

- fermentation by a co-culture of *Saccharomyces cerevisiae* and *Williopsis saturnus*. *S. Afr. J. Enol. Vitic.*, **31**, 116–124.
- Tsukamoto, H., French, S.W., Benson, N., Delgado, G., Rao, G.A., Larkin, E.C. and Largman, C. (1985). Severe and progressive steatosis and focal necrosis in rat liver induced by continuous intragastric infusion of ethanol and low fat diet. *Hepatology*, **5**, 224–232.
- Tsukamoto, H., Horne, W., Kamimura, S., Niemela, O., Parkkila, S., Yla-Herttuala, S. and Brittenham, G.M. (1995). Experimental liver cirrhosis induced by alcohol and iron. *J. Clin Invest.*, **96**, 620–630.
- Tsukamoto, H., Lin, M., Ohata, M., Giulivi, C., French, S.W. and Brittenham, G. (1999). Iron primes hepatic macrophages for NF- κ B activation in alcoholic liver injury. *Am J. Physiol.*, **277**, 1240–1250.
- Tsutsumi, M., Lasker, J.M., Shimizu, M., Rosman, A.S. and Lieber, C.S. (1989). The intralobular distribution of ethanol-inducible P450IIE1 in rat and human liver. *Hepatology*, **10**, 437–446.
- Tucker, G.A. (1993). Introduction. In *Biochemistry of Fruit Ripening*; Seymour, G.B., Taylo, R.J.E., Tucker, G.A. Eds.; Chapman & Hall: London, UK, pp. 1–51.
- Ugliano, M., Bartowsky, E.J., McCarthy, J., Moio, L. and Henschke, P.A. (2006). Hydrolysis and transformation of grape glycosidically bound volatile compounds during fermentation with three *Saccharomyces* yeast strains. *J. Agric. Food Chem.*, **54**, 6322–6331.
- Ulrich, S. (2000). Solid-phase microextraction in biomedical analysis. *J. Chromatogr. A.*, **902**, 167–194.
- Uysal, M., Odzemirler, G., Kutalp, G. and Oz, H. (1989). Mitochondrial and microsomal lipid peroxidation in rat liver after acute acetaldehyde and ethanol intoxication. *J. Appl. Toxicol.*, **9**, 155–158.
- Valcheva-Kuzmanova¹, S., Eftimov, M. and Kuzmanov, K. (2013). Evaluation of oxidative stress in rats treated subchronically with ethanol. *Scripta Scientifica Medica*, **45**, 35–39.
- Van der Gaag, M.S., van Tol, A., Scheek, L.M., James, R.W., Urgert, R., Schaafsma, G. and Hendriks, H.F. (1999). Daily moderate alcohol consumption increases serum paraoxonase activity; a diet-controlled, randomised intervention study in middle aged men. *Atherosclerosis.*, **147**, 405–410.

- Varakumar, S., Kumar, Y.S. and Reddy, O.V.S. (2011). Carotenoid composition of mango (*Mangifera indica* L.) wine and its antioxidant activity. *J. Food Biochem.*, **35**, 1538–1547.
- Varakumar, S., Naresh, K. and Reddy, O.V.S. (2012a). Production of Mango (*Mangifera indica* L.) wine using yeast cells immobilized on mango peel (biocatalyst). *Czech J. Food Sci.*, **6**, 557–566.
- Varakumar, S., Naresh, K. and Reddy, O.V.S. (2012b). Effect of co-fermentation with *Saccharomyces cerevisiae* and *Torulasporea delbrueckii* or *Metschnikowia pulcherrima* on the aroma and sensory properties of mango wine. *Ann Microbiol.*, **62**, 1353–1360.
- Varakumar, S., Naresh, K., Variyar, P.S., Sharma, A. and Reddy, O.V.S. (2013). Role of malolactic fermentation on the quality of mango (*Mangifera indica* L.) wine. *Food Biotechnol.*, **27**, 119-136.
- Vargo, M.A. and Colman, R.F. (2001). Affinity labeling of rat glutathione-S-transferase isozyme 1-1 by 17 beta-iodoacetoxy-estradiol-3-sulfate. *J. Biol. Chem.*, **276**, 2031–2036.
- Variyar, P.S., Bandyopadhyay, C. and Thomas, P. (1998). Effect of γ -irradiation on the phenolic acid of some Indian spices. *Int J Food Sci Technol.*, **33**, 533–537.
- Variyar, P.S., Limaye, A. and Sharma, A. (2004). Radiation-induced enhancement of antioxidant contents of soybean (*Glycine max* Merrill). *J. Agr. Food Chem.*, **52**, 3385–3388.
- Vaughan-Martini, A. and Martini, A. (1995). Facts, myths and legends on the prime industrial microorganism. *J. Indust. Microbiol.*, **14**, 514–522.
- Verzera, A., Ziino, M., Scacco, A., Lanza, C.M., Mazzaglia, A., Romeo, V. and Condurso, C. (2008). Volatile compound and sensory analysis for the characterization of an Italian white wine from “Inzolia” grapes. *Food Anal Method.*, **1**, 144–151.
- Vilanova, M. and Massneuf-Pomarede, I. (2005). Characterization of yeast strains from Rias Baixas (NW Spain) and their contribution to the fermentation of *Albarino* wine. *Ann Microbiol.*, **55**, 23–26.
- Vilanova, M. and Sieiro, C. (2006). Contribution by *Saccharomyces cerevisiae* yeast to fermentative flavor compounds in wines from cv. *Albariño*. *J Ind Microbiol Biotechnol.*, **33**, 929–933.
- Vilanova, M., Ugliano, M., Varela, C., Siebert, T., Pretorius, I.S. and Henschke, P.A. (2007). Assimilable nitrogen utilisation and production of volatile and nonvolatile

- compounds in chemically defined medium by *Saccharomyces cerevisiae* wine yeasts. *Appl Microbiol Biotechnol.*, **77**, 145–157.
- Villegas, R., Salim, A., O'Halloran, D. and Perry, I.J. (2004). Alcohol intake and insulin resistance. A cross-sectional study. *Nutr Metab Cardiovasc Dis.*, **14**, 233–240.
- Vinci, G., Botre, F., Mele, G. and Ruggieri, G. (1995). Ascorbic acid in exotic fruits: a liquid chromatographic investigation. *Food Chem.*, **53**, 211–214.
- Vine, R.P., Harkness, E.M., Browning, T. and Wagner, C. (1997). *Wine Making: From grape growing to the market place*. Chapman and Hall, New York, USA.
- Wang, J. and Chao, Y. (2003). Effect of gamma irradiation on quality of dried potato. *Radiat. Phys. Chem.*, **66**, 293–297.
- Wang, Z.Q., Baker, T.H. and Fuller, G.M. (1999). Alcohol at moderate levels decreases fibrinogen expression *in vivo* and *in vitro*. *Alcohol Clin Exp. Res.*, **23**, 1927–1932.
- Wassmann, S., Wassmann, K. and Nickenig, G. (2004). Modulation of oxidant and antioxidant enzyme expression and function in vascular cells. *Hypertension*, **44**, 381–386.
- Weltman, M.D., Farrell, G.C., Hall, P., Ingelman-Sundberg, M. and Liddle, C. (1998). Hepatic cytochrome P4502E1 is increased in patients with nonalcoholic steatohepatitis. *Hepatology*, **27**, 128–133.
- Wendel, A. (1981). Glutathione peroxidase. *Method Enzymol.*, **77**, 325–333.
- Werner, J., Saghir, M., Warshaw, A.L., et al. (2002). Alcoholic pancreatitis in rats: Injury from nonoxidative metabolites of ethanol. *Am J. Physiol Gastrointest Liver Physiol.*, **283**, 65–73.
- Wheeler, M.D., Kono, H., Yin, M., Rusyn, I., Froh, M., Connor, H.D., Mason, R.P., Samulski, R.J. and Thurman, R.G. (2001a). Delivery of Cu/Zn-superoxide dismutase gene with adenovirus reduces early alcohol-induced liver injury in rats. *Gastroenterolog.*, **120**, 1241–1250.
- Wheeler, M.D., Nakagami, M., Bradford, B.U., Uesugi, T., Mason, R.P., Connor, H.D., Dikalova, A., Kadiiska, M. and Thurman, R.G. (2001b). Overexpression of manganese superoxide dismutase prevents alcohol-induced liver injury in the rat. *J. Biolo Chem.*, **276**, 36664–36672.
- Whitecomb, D.C. and Block, G.D. (1994). Association of acetaminophen hepatotoxicity with fasting and ethanol use. *JAMA*, **272**, 1845–1850.
- Whitfield, J.B. (2001) Gamma glutamyl transferase *Crit Rev Clin Lab Sci.*, **38**, 263–355.

- WHO. (1981). Wholesomeness of irradiated food. Report of Joint FAO/IAEA/WHO Expert Committee. Technical Report Series 659. p. 34.
- WHO. (1999). High-dose irradiation: Wholesomeness of food irradiated with doses above 10 kGy, Report of a joint FAO/IAEA/WHO study group. WHO technical Report Series 890. Geneva: World Health Organization.
- Wilkinson, A.S, Monteith, G.R., Shaw, P.N., Lin, C.N., Gidley, M.J. and Roberts-Thomson, S.J. (2008). Effects of the mango components mangiferin and quercetin and the putative mangiferin metabolite norathyriol on the transactivation of peroxisome proliferator-activated receptor isoforms. *J Agric Food Chem.*, **56**, 3037–3042.
- Wilson, C.W., Shaw, P.E. and Knight, R.J. Jr. (1990). Importance of some lactones and 2,5-dimethyl-4-hydroxy-3(2H)-furanone to mango (*Mangifera indica* L.) aroma. *J. Agric. Food Chem.*, **38**, 1556–1559.
- Wilson, K., Boreham, D. and Moran, G. (2003). Applications of Radiation within the Wine Industry. *Can Undergraduate Phy J.*, **1**, 17–19.
- Winterhalter, P. (1991). Fruits IV. In *Volatile Compounds in Foods and Beverages*; Maarse, H., Ed.; Dekker: New York, pp 389–409.
- Winterhalter, P. and Rouseff, R.L. (2002). Carotenoid-derived aroma compounds: An introduction. In *Carotenoid-Derived Aroma Compounds*; Winterhalter, P., Rouseff, R.L., Eds.; American Chemical Society: Washington, DC, USA, pp. 1–17.
- Wiseman, H. and Halliwell, B. (1996). Damage to DNA by reactive oxygen and nitrogen species: role in inflammatory disease and progression to cancer. *Biochem J.*, **313**, 17–29.
- Witztum, J.L. and Steinberg, D. (1991). Role of oxidized low density lipoprotein in atherogenesis. *J Clin Invest.*, **88**, 1785–1792.
- Wohaieb, S.A. and Godin, D.V. (1987). Alterations in free radical tissue – defense mechanisms in streptozotocin diabetes in rats: Effect of insulin treatment. *Diabetes*, **36**, 1014–1021.
- Wollin, S.D. and Jones, P.J.H. (2002). Alcohol, red wine and cardiovascular disease. *J Nutr.*, **132**, 1401–1404.
- Woods, R.J. and Pikaev, A.K. (1994). Interaction of radiation with matter. In: *Applied Radiation Chemistry: Radiation Processing*. Wiley, New York, USA, pp. 59–89.
- Wu, D., Shu, Q., Wang, Z. and Xia, Y. (2002). Effect of gamma irradiation on starch viscosity and physico-chemical properties of different rice. *Radiat. Phys. Chem.*, **65**, 79–86.

- Wybenga, D.R.D., Glorgio, J. and Pileggy, V. J. (1971). Determination of serum urea by Diacetyl monoxime method. *J Clin Chem.*, **17**, 891–895.
- Wyllie, S.G., Leach, D.N., Wang, Y. and Shewfelt, R.L. (1995). Key aroma compounds in melons: Their development and cultivar dependence. In *Fruit Flavors: Biogenesis, Characterization, and Authentication*; Rouseff, R.L., Leahy, M.M., Eds.; American Chemical Society: Washington, DC, USA, pp. 248–257.
- Yahia, E.M. (1998). Postharvest handling of mangoes. Technical Report. Agricultural Technology Utilization and Transfer Project, Giza, Egypt. <http://www.atut.gov.eg>. Accessed 04.04.200.
- Yanardag, R. and Tunali, S. (2006). Vanadyl sulfate administration protects the streptozotocin-induced oxidative damage to brain tissue in rats. *Mol Cell Biochem.*, **286**, 153–159.
- Yanardag, R., Ozsoy–Sacan, O., Ozdil, S. and Bolkent, S. (2007). Combined effects of vitamin C, vitamin E, and sodium selenate supplementation on absolute ethanol-induced injury in various organs of rats. *Int J Toxicol.*, **26**, 513–523.
- Yanishlieva–Maslarova, N.V. (2001). Inhibiting oxidation. In: Pokorny, J., Yanishlieva, N., Gordon, M.H. (Eds.), *Antioxidants in Food: Practical Applications*. Woodhead Publishing Limited, Cambridge, pp. 22–70.
- Yao, P., Li, K., Jin, Y., Song, F., Zhou, S., Sun, X., Nussler, A.K. and Liu, L. (2006). Oxidative damage after chronic ethanol intake in rat tissues: Prophylaxis of *Ginkgo biloba* extract. *Food Chem.*, **99**, 305–314.
- Yokoyame, H., Ishii, H., Nagata, S., Kato, S., Kamegaya, K. and Tsuchiya, M. (1993). Experimental hepatitis induced by ethanol after immunization with acetaldehyde adducts. *Hepatology*, **17**, 14–19.
- Yoshida, R., Shioji, I., Kishida, A. and Ogawa, Y. (2001). Moderate alcohol consumption reduces urinary 8-hydroxydeoxyguanosine by inducing of uric Acid. *Ind Health.*, **39**, 322–329.
- Yoshida, Y., Komatsu, M., Ozeki, A., Nango, R. and Tsukamoto, I. (1997). Ethanol represses thymidylate synthase and thymidine kinase at mRNA level in regenerating rat liver after partial hepatectomy. *Biochim Biophys Acta.*, **1336**, 180–186.
- Young, A.T., Bailey, S.M., VanHorn, C.G. and Cunningham, C.C. (2006). Chronic ethanol consumption decreases mitochondrial and glycolytic production of ATP in liver. *Alcohol Alcohol.*, **41**, 254–260.

- Youssef, B.M., Asker, A.A., El-Samahy, S.K. and Swailam, H.M. (2002). Combined effect of steaming and gamma irradiation on the quality of mango pulp stored at refrigerated temperature. *Food Res Int.*, **35**, 1–13.
- Yu, L., Reitmeier, C.A., Gleason, M.L., Nonnecke, G.R., Olson, D.G. and Gladon, R.J. (1995). Quality of electron beam irradiated strawberries. *J. Food Sci.*, **60**, 1084–1087.
- Zakhari, S. (2006). Overview: How Is Alcohol Metabolized by the Body? *Alcohol res health.*, **29**, 245–254.
- Zakhari, S. (2013). Alcohol Metabolism and Epigenetics Changes. *Alcohol res.*, **35**, 6–16.
- Zelko, I.N., Mariani, T.J. and Folz, R.J. (2002). Superoxide dismutase multigene family: a comparison of the CuZn-SOD (SOD1), Mn-SOD (SOD2), and EC-SOD (SOD3) gene structures, evolution, and expression. *Free Radic. Biol. Med.*, **33**, 337–349.
- Zhang, Z.M., Zeng, D.D. and Li, G.K. (2006). The study of the aroma characteristics of Chinese Mango Cultivars by GC/MS with solid phase microextraction. *J Plant Sci.*, **1**, 98–105.
- Zhou, B., Wu, L., Yang, L. and Liu, Z. (2005). Evidence for α -tocopherol regeneration reaction of green tea polyphenols in SDS micelles. *Free Radical Bio Med.*, **38**, 78–84.
- Ziegenhorn, J., Brandhuber, M. and Bartl, K. (1978). Enzyme in health and Diseases. *Soc. Clin. Enzymol.*, Karger, Basel, Pp. 131.
- Zimatkin, S.M. and Deitrich, R.A. (1997). Ethanol metabolism in the brain. *Addict Biol.*, **2**, 387–399.
- Zoecklein, B.W., Fugelsang, K.C., Gump, B.H. and Nury, F.S. (1990). Nitrogenous compounds. In *Production Wine Analysis*. Van Nostrand Reinhold, New York, Pp. 330–333.
- Zoecklein, B.W., Fugelsang, K.C., Gump, B.H. and Nury, F.S. (1995) Wine analysis and production. New York: The Chapman and Hall Enology Library.