

## REFERENCES

- Alvarez L.D., E. Jaramillo Flores, K. González, R. Martinez, L. Parada. 2011. Blanching peppers using microwaves. *Procedia Food Sci*, pp. 178-183
- Anonim. (2008). General Standard the use of Flavorings. Codex Alimentarius Commission (CAC). Codex Stan 66-2008. Rome: CAC.
- Association of Official Analytical Chemist (AOAC). 1995-2005. Official Methods of Analysis. AOAC Arlington.
- Arnold, U., Rucknagel, K.P., Schierhorn, A., and Ulbrich-Hofmann, R. 1996. Thermal Unfolding and Proteolytic Susceptibility of Ribonuclease A. *Eur. J. Biochem.* 237: 862–869.
- Bahçeci, A. Serpen, V. Gökmen, J. Acar. 2005. Study of lipoxygenase and peroxidase as indicator enzymes in green beans: change of enzyme activity, ascorbic acid and chlorophylls during frozen storage. *J Food Eng*, 66:187-192
- Bhat, R., & Karim, A. A. (2009). Exploring the nutritional potential of wild and underutilized legumes. *Comprehensive Reviews in Food Science and Safety*, 8: 305–331.
- Beyreuther, K., H.K. Biesalski., J.D. Fernstrom, P. Grimm, W.P. Hammes, dan U. Heinemann. 2007. Consensus meeting: Monosodium glutamate. *European Journal of Clinical Nutrition* 61 (3): 304–313.
- Bellisle, F. (1999). Glutamate and the umami taste. Sensory, metabolic, nutritional and behavioural considerations. A review of the literature published in the last 10 years. *Neuroscience and Biobehavioral Reviews* 23: 423–438.
- Biao Li, Benard Muinde Kimatu, Fei Pei, Shuangyang Chen, Xin Feng, Qiuhui Hu & Liyan Zhao. 2017. Non-volatile flavour components in *Lentinus edodes* after hot water blanching and microwave blanching. *International Journal of Food Properties*. 20: S2532–S2542.
- Bongoni, R., Verkerk, R., Steenbekkers, B., Dekker, M., and Stieger, M. (2014). Evaluation of Different Cooking Conditions on Broccoli (*Brassica oleracea* var. *italica*) to Improve the Nutritional Value and Consumer Acceptance. *Plant Foods Human Nutrition*. 69: 228-234.
- Boekel, M. 2006. Formation of Flavour Compounds in the Maillard Reaction. *Biotechnol. Adv.* 24: 230–233.
- Chen, D.-W., and Zhang, M., 2007, “Non-volatile taste active compounds in the meat of Chinese mitten crab (*Eriochneir sinensis*)”, *Food Chemistry*. 104: 1200-1205.

- Eichhorn, P, and Knepper, T.P. 2001. Electrospray Ionization Mass Spectrometric Studies on The Amphoteric Surfactant Cocamidopropylbetaine. *Journal Mass Spectroscopy*. 36: 677-684
- Fante Norena CPZ. 2012. Enzyme inactivation kinetics and colour changes in garlic (*Allium sativum* L.) blanched under different conditions *J Food Eng*, 108: 436-443.
- FAO WHO UNU Energy and Protein Requirement, WHO Technical Report Series No. 724 1985 WHO Geneva, Switzerland.
- Fennema, O.R. (1985). *Food Chemistry* 3rd edn. Marcel Dekker, Inc. New York.
- Fisher, G.H., Arian, I., Quesada, S., Danjelo, F., Ericco, and Difiore, M. 2001. A Fast and Sensitive Method for Measuring Picomole Levels of Total Free Amino Acids in Very Small Amounts of Biological Tissue. 20: 163-173.
- Gokmen, V., Bahceci, K.S., Serpen, A. Dan Acar, J. 2005. Study of Lipoxigenase and Peroxidase as Blanching Indicator Enzymes in Peas: Change of Enzyme Activity, Ascorbic Acid, and Chlorophylls during Frozen Storage. *LWT-Food Science and Technology*. 38: 903-908.
- Gu, Y. and Wu, J. 2013. LC-MS/MS Coupled with QSAR Modeling in Characterising of Angiotensin I-Converting Enzyme Inhibitory Peptides from Soybean Proteins. *Food Chem*. 141: 2682–2690.
- Hadadi, M., Ibarz, A., Conde, J., and Pagan, J. 2019. Optimisation Of Steam Blanching On Enzymatic Activity, Color And Protein Degradation Of Alfalfa (*Medicago Sativa*) To Improve Some Quality Characteristics Of Its Edible Protein. *Food Chemistry*. 276: 591–598.
- Handayani, S. 2017. *Pengaruh Steam Blanching terhadap Aktivitas dan Senyawa Antioksidan Jengkol (Pithecellobium jiringa)*. Tidak Diterbitkan. Tesis. Fakultas Teknologi Pertanian, Universitas Gadjah Mada, Yogyakarta.
- Handschumacher, R. 1960. Orotidylic Acid Decarboxylase: Inhibition Studies With Azauridine 50 -Phosphate. *Journal of Biological Chemistry*. 10: 2917–2919.
- Harborne, J.B. 1987. *Phytochemical Methods* 2nd Edition. Chapman and Hall, New York.
- H-W Xiao, ZhongliPan, L-Z. Deng, H.M. El-Mashad, X-H. Yang, A.S. Mujumdar, Z-J. Gao, and QianZhang. 2017. Recent developments and trends in thermal blanching-a comprehensive review, *Information Processing in Agriculture*. 4: 101-127.
- Jinap, S. and P. Hajeb. 2010. Glutamate, Its applications in food and contribution to health. *Journal Appetite* 55: 1-10.

- K. Bahçeci, A. Serpen, V. Gökmen, J. Acar. 2005. Study of lipoxygenase and peroxidase as indicator enzymes in green beans: change of enzyme activity, ascorbic acid and chlorophylls during frozen storage. *J Food Eng.* 66L: 187-192.
- Kim, T.J., Silvia, J.L., Kim, M.K. dan Jung, Y.S. 2010. Enhanced Antioxidant Capacity and Antimicrobial Activity of Tannic and By Thermal Processing. *Food Chemistry.* 118: 740-746.
- Kondoh, T., H.N. Mallick dan K. Torii. 2009. Activation of the gut-brain axis by dietary glutamate and physiologic significance in energy homeostasis. *American Journal of Clinical Nutrition.* 90: 832–837.
- Kuninaka, A. 1967. Flavor Potentiators. In *Symposium on Foods: The Chemistry an Physiologof Flavors*; Schultz, H. W., Day, E. A., Libbey, L. M., Eds.; AVI Publishing Company: Westport, CT: 515-535.
- Kurniawaty E, 2014. The Effect Of Djenkol (*Pithecellobium Lobatum* Benth.) Seeds Ethanol Extract On Levels Of Blood Glucose, Urea And Creatinine In White Male Rats (*Rattus Norvegicus*) Sprague Dawley Strain Induced Alloxan. *Medical Journal of Lampung University.* Lampung. 3: 2337-3776.
- Litchfield, J. 1967. Morel Mushroom Mycelium as a Food-Flavoring Material. *Biotechnol. Bioeng.* 9: 289–304.
- Leksrisompong, P., Gerard, P., Lopetcharat, K. and Drake, M. 2012. Bitter Taste Inhibiting Agents for Whey Protein Hydrolysate and Whey Protein Hydrolysate Beverages. *J. Food Sci.* 77: S282–S287.
- Li, Q., Zhang, H. H., Claver, I. P., Zhu, K. X., Peng, W., and Zhou, H. M. 2011. Effect of Different Cooking Methods on the Flavour Constituents of Mushroom (*Agaricus Bisporus* (Lange) Sing) Soup. *Int. J. Food Sci. Technol.* 46: 1100–1108.
- Li, W., Gu, Z., Yang, Y., Zhou, S., Liu, Y., and Zhang, J. 2014. Non-Volatile Taste Components of Several Cultivated Mushrooms. *Food Chem.* 143: 427–431.
- Lim T.K. 2012. *Edible Medicinal And Non-Medicinal Plants.* Springer Science+Business Media B.V. 2: 544
- Lin, L., And M.S. Brewer. 2005. Effects Of Blanching Method On The Quality Characteristics Of Frozen Peas. 28: 350-360.
- Lidemann, B. 2001. Receptors and transduction in taste. *Nature* 413: 219–225.
- Mau, J.-L., Lin, H.-C., Ma, J.-T. and Song, S.-F. 2001. Non-volatile taste components of several speciality mushrooms. *Food Chemistry.* 73: 461–466.

- Mau, J. L. 2005. The Umami Taste of Edible and Medicinal Mushrooms. *Int. J. Med. Mushrooms*. 7: 119–126.
- Mohapatra, D., Patel, A.V., Kar, A., Dshpande, S.S., and Tripathi, M.K. 2019. Effect of Different Processing Conditions on Proximate Composition, Antioxidants, Anti-Nutrients and Amino Acid Profile of Grain Sorghum. *Food Chemistry*. 271: 129–135.
- Mulyatiningsih. 2007. *Teknik-teknik Dasar Memasak*. Universitas Negeri Yogyakarta, Yogyakarta.
- Ney, K.H., 1971. Flavor enhancing effect of L-glutamate and similar compounds. *Z. Lebensm. Unters. Forsch.* 146: 141–143.
- Ninomiya, K. 1998. Natural occurrence. *Food Review International* 14: 177–212.
- Ninomiya, K. 2001. An overview of recent research on MSG. Sensory applications and safety. *Food Australia* 53: 546–549.
- Nobel, A.C. 1996. Taste-aroma interactions. *Trends in Food Science & Technology*. 7: 439-444.
- Oyarekua, M. A., and Eleyinmi, A. F. 2004. Comparative Evaluation Of The Nutritional Quality Of Corn, Sorghum And Millet Ogi Prepared By A Modified Traditional Technique. *Journal of Food Agriculture and Environment*. 2: 94–99.
- Opikasari, P. 2017. *Perubahan Aktivitas dan Senyawa Antioksidan Petai Cina (Leucaena leucocephala) selama Perlakuan Steam Blanching*. Universitas Gadjah mada, Yogyakarta.
- Patras, A., Tiwari, B.K., dan Brunton, N.P. 2011. Influence of Blanching and Low Temperature Preservation Strategies on Antioxidant Activity and Phytochemical Content of Carrots, Green Beans, and Broccoli. *Journal Food Science and Technology*. 44: 299-306.
- Pei, F., Shi, Y., Gao, X., Wu, F., Mariga, A. M., Yang, W., Zhao, L., An, X., Xin, Z., Yang, F., dan Hu, Q. (2014). Changes in Non-Volatile Taste Components of Button Mushroom (*Agaricus bisporus*) During Different Stages of Freeze Drying and Freeze drying Combined with Microwave Vacuum Drying. *Food Chemistry*. 165: 547-554.
- Pei, F., Shi, Y., Gao, X., Wu, F., Mariga, A. M., Yang, W., Zhao, L., An, X., Xin, Z., Yang, F., dan Hu, Q. (2014). Changes in Non-Volatile Taste Components of Button Mushroom (*Agaricus bisporus*) During Different Stages of Freeze Drying and Freeze drying Combined with Microwave Vacuum Drying. *Food Chemistry*. 165: 547-554.

- Poelman, A.A.M., C.M. Delahunty, dan C. DeGraaf. 2013. Cooking Time but Not Cooking Method Affect Children's Acceptance of Brassica Vegetables. *Food Quality Preferences* 28: 441-448.
- Populin, T., S. Moret, S. Truant., dan L.S. Conte. 2007. A survey on the presence of free glutamic acid in foodstuffs, with and without added monosodium glutamate. *Food Chemistry* 104: 1712–1717.
- Proestos, C.; Boziaris, I.S.; Nychas, G.J.E.; Komaitis, M. 2006. Analysis of flavonoids and phenolic acids in Greek aromatic plants: Investigation of their antioxidant capacity and antimicrobial activity. *Food Chem.* 95: 664–671.
- Rangan, C., dan Barceloux, D. G. 2009. Food additives and sensitivities. *Disease-A-Month* 55: 292–311.
- Priecina, L., Karklina, D., Kince, T. 2018. The impact of steam blanching and dehydration on phenolic, organic acid and total carotenoids in celery roots. *Innovative food science and emerging technologies*. 49 : 192-201.
- Qu, W., Ma, H., Jia, J., He, R., Luo, L., and Pan, Z. 2012. Enzymolysis Kinetics and Activities of ACE-Inhibitory Peptides from Wheat Germ Protein Prepared with SFP Ultrasound-Assisted Processing. *Ultrason. Sonochem.* 19: 1021–1026.
- Reeds, P. J., D.G. Burrin, B. Stoll, and F. Jahoor. 2000. Intestinal glutamate metabolism. *Journal of Nutrition* 130: 978S–982S.
- Rennie C, Wise A (2010) Preferences for steaming of vegetables. *J Hum Nutr Diet* 23:108–110
- Roy, M.K., I.R. Juneja, S. Isobe, and T. Tshida. 2009. Steam Processed Broccoli (*Brassica oleracea*) has Higher Antioxidant Activity in Chemical and Cellular Assay System. *Food Chemistry* 114: 263-269.
- Rupachandra, S., and Sarada, D. V. L. 2013. Anticancer activity of methanol extract of the seeds of *Borreria hispida* and *Momordica dioica*. *Journal of Pharmacy Research*. 6: 565–568.
- Saldivar, X., Y.-J. Wang, P. Chen, and A. Mauromoustakos. 2010. Effects of blanching and storage conditions on soluble sugar contents in vegetable soybean. *Food Science and Technology*. 43: 1368-1372.
- Schlichtherle-Cerny, H. and R. Amadò. 2002. Analysis of taste-active compounds in an enzymatic hydrolysate of deamidated wheat gluten. *Journal of Agricultural and Food Chemistry* 50:1515–1522.
- Shonte, T.T., and De Kock, H.L. 2017. Descriptive Sensory Evaluation of Cooked Stinging Nettle (*Urtica dioica* L.) Leaves and Leaf Infusions: Effect of Using

- Fresh or Oven Dried Leaves. South African Journal of Botany. 110: 167-176.
- Shukri, R., Mohamed, S., Mustapha, N. M., & Hamid, A. A. (2011). Evaluating the toxic and beneficial effects of jering beans (*Archidendron jiringa*) in normal and diabetic rats. *Journal of the Science of Food and Agriculture*, 91: 2697–2706.
- Silverstein, R.M., Webster, F.X., dan Kiemle, D. 2005. *Spectrometric Identification of Organic Compound* 7<sup>th</sup> Edition. Wiley, New York.
- Sowalsky, R. A. and Noble, A. C. 1998. Comparison of the Effects of Concentration, pH and Anion Species on Astringency and Sourness of Organic Acids. *Chem. Senses*. 23: 343–349.
- Sowalsky, R. A. and Noble, A. C. 1998. Comparison of the Effects of Concentration, pH and Anion Species on Astringency and Sourness of Organic Acids. *Chem. Senses*. 23: 343–349.
- Sornwatana, T., Bangphoomi, K., Roytrakul, S., Wetprasit, N., Choowongkamon, K., Ratanapo, S. Chebulin, and Terminalia Chebula Retz. 2015. Fruit-Derived Peptide with Angiotensin-I-Converting Enzyme Inhibitory Activity. *Biotechnol. Appl. Biochem.* 62: 746–753.
- Sridaran, A., Alias A. Karim, Rajeev Bhat. 2012. *Pithecellobium jiringa* legume flour for potential food applications: Studies on their physico-chemical and functional properties. *Food Chemistry*. 130: 528–535.
- Taufik, M. dan D. Rahmawati. 2017. Fraksinasi dan Karakterisasi Komponen Rasa Gurih pada Bumbu Penyedap. *Jurnal Aplikasi Teknologi Pangan* 6: 36- 38.
- Temussi, P.A. 2011. The good taste of peptides. *Journal of Peptide Science* 18:73-82.
- Tsai, S. Y., Wu, T. P., Huang, S. J. and Mau, J. L. 2007. Nonvolatile Taste Components of *Agaricus Bisporus* Harvested at Different Stages of Maturity. *Food Chem.* 103: 1457–1464.
- Thewissen, B.G., Pauly, A., Celus, I., Brijs, K., and Delcour, J.A. 2011. Inhibition of Angiotensin I-Converting Enzyme by Wheat Gliadin Hydrolysates. *Food Chem.* 127: 1653–1658.
- Thippeswamy, R., Gouda, M. K. G., Rao, D. H., Martin, A., & Gowda, L. R. J. (2006). Determination of theanine in commercial tea by liquid chromatography with fluorescence and diode array ultraviolet detection. *Journal of Agricultural and Food Chemistry*. 54: 7014–7019.
- Tohma, H., E. Köksal, Ö. Kılıç., Y. Alan, M.A. Yılmaz, I. Gülçin, E. Bursal, dan E.H. Awasel. 2016. RP-HPLC MS/MS Analysis of The Phenolic Compound,



Antioxidant, and Antimicrobial Activities of *Salvia L.* Species. *Antioxidants* 5: 1-15.

Turkmen, N., F. Sari, dan S. Valioglu. 2005. The Effect of Cooking Methods on Total Phenolics and Antioxidant Activity of selected Green Vegetables. *Journal of Food Chemistry* 93: 713-718.

Kidmose, U., H.J. Martens. 1999. Changes In Texture, Microstructure And Nutritional Quality Of Carrot Slices During Blanching And Freezing. *J Sci Food Agric.* 79: 1747-1753.

Velisek, J., Davidek, J., Kubelka, V., Tran, T.B.T., Hajslova, J., 1978. Succinic acid in yeast autolysates and its sensory properties. *Nahrung* 22: 735–743.

Vina, S.Z., Olivera, D.F., Marani, C.M., Ferreyra, C.M., Mugridge, A., Chaves, A.R., dan Mascheroni, R.H. 2007. Quality of Brussels Sprout (*Brassica oleracea L. Gemmifera* DC) as Affected by Blanching Method. *Journal of Food Engineering.* 80: 218-225.

Wang, L., Renjie Xu, Bing Hu, Wei Li, Yi Sun, Youying Tu and Xiaoxiong Zeng. 2010. Analysis of free amino acids in Chinese teas and flower of tea plant by high performance liquid chromatography combined with solid-phase extraction. *Food Chemistry.* 123: 1259–1266.

Warendorf, T., Belitz, H.D., Gasser, U., Grosch, W., 1992. The flavor of bouillon. Part 2. Sensory analysis of non-volatiles and imitation of a bouillon. *Z. Lebensm. Unters. Forsch.* 195 (3): 215–223.

Weil, M., Sing, A.S.C., Meot, J.M., Boulanger, R., dan Bohuon, P. 2017. Impact of Blanching, Sweating, and Drying Operations on Pungency, Aroma, and Color of *Piper borbonense*. *Food Chemistry.* 219: 274-281.

Xiao, H.W., J.W. Bai, D.W. Sun, dan Z.J. Gao. 2017. The Application of Superheated Steam Impingement Blanching (SSIB) on Purgency, Aroma, and Color of *Piper borbonense*. *Food Chemistry* 219: 274-281.

Yamaguchi, S., 1967. The synergistic taste effect of monosodium glutamate and disodium 5'-inosinate. *J. Food Sci.* 32: 473–478.

Yamaguchi, S., dan K. Ninomiya. 2000. Umami and food palatability. *Journal of Nutrition* 130: 921S–926S.

Yamaguchi, S., Yoshikawa, T., Ikeda, S., Ninomiya, T., 1971. Measurement of the relative taste intensity of some L- $\alpha$ -amino acids and 5'-nucleotides. *J. Food Sci.* 36: 846–849.

Yang, J., Lin, H. and Mau, J. 2001. Non-Volatile Taste Components of Several Commercial Mushroom. *Food Chem.* 72: 465–471.

- Yeon-Ju, L., Jeong-Woo, L., Dong-Geun, L., Hyi-Seung, L., Jong, S.K., dan Jieun, Y. 2014. Cytotoxic Sesterterpenoids Isolated from The Marine Sponge (*Scalarispongia* sp.). *Journal Molecular Science*. 15: 20045- 20053.
- Yoshida, Y. 1998. Umami taste and traditional seasoning. *Food Review International* 14: 213–246.
- Yoneda, C., Okubo, K., Kasai, M. and Hatae, K. 2005. Extractive Components of Boiled-Dried Scallop Adductor Muscle and Effect on the Taste of Soup after Mixing with Chicken Leg Meat. *J. Sci. Food Agric*. 85: 809–816.