

REFERENCES

- Abdul Hamid, A., Mohamad Shah, Z., Muse, R. and Mohamed, S. (2002). Characterisation of antioxidant activities of various extracts of *Centella asiatica* (L) Urban. *Food Chemistry*, 77, 465-469.
- Abeles, F. B. and Dunn, L. (1989). Role of peroxidase during ethylene induced chlorophyll breakdown in *Cucumis sativus* cotyledons. *Journal of Plant Growth Regulation*, 8, 319-325.
- Abets, J. E. and Wrolstad, R. E. (1979). Causative factors of colour deterioration in strawberry preserves during processing and storage. *Journal of Food Science*, 44, 75-78.
- Abushita, A. A., Daood, H. G. and Biacs, P. A. (2000). Change in carotenoids and antioxidant vitamins in tomato as a function of varietal and technological factors, *Journal of Agricultural and Food Chemistry*, 48(6), 2075-2081.
- Adachi, M., Nakabayashi, K., Azuma, R., Kurata, H., Takahashi, Y. and Shimokawa, K (1999). The ethylene-induced chlorophyll catabolism of radish (*Raphanus sativus* L.) cotyledons: production of colorless fluorescent chlorophyll catabolite (FCC) *in vitro*. *Journal of the Japanese Society for Horticultural Science*, 68, 1139-1145.
- Adams, R. P. (1995). *Identification of essential oil components by GCMS*. Allured Publishing Corporation Carol Stream, Illinois, USA.
- Addo, A. A. (1981). Ascorbic acid retention of stored dehydrated Nigerian vegetables. *Nutrition Report International*, 24(4), 769-775.
- Ahmed, E. M., Denninson, R. A., Dougherty, R. H. and Shaw, P. E. (1978). Effect of non volatile orange juice components, acid, sugar and pectin on the favor threshold of *d*-Limonene in water. *Journal of Agricultural and Food Chemistry*, 26, 192-194.
- Ahmed, J., Ramaswamy, H. S. and Hiremath, N. (2005). The effect of high pressure treatment on rheological characteristics and colour of mango pulp. *International Journal of Food Science and Technology*, 40, 885-895.

- Ahmed, J. and Ramaswamy, H. S. (2006). Changes in colour during high pressure processing of fruits and vegetables. *Stewart Postharvest Review*, 5(9), 1-8.
- Akerlof, G. (1932). Dielectric constants of some organic solvent-water mixtures at various temperatures, *Journal of the American Chemical Society*, 54, 4125-4139.
- Ali, M. S. M. (2008). *Analysis of phenolics and other phytochemicals in selected Malaysian traditional vegetables and their activities in vitro*. PhD thesis. University of Glasgow, UK.
- Ali, M. M. and Crozier, A. (2007). Reversed-phase high performance liquid chromatography tandem mass spectrometry (RP-HPLC-MS) analysis of phenolics in selected Malaysian traditional vegetables and their total antioxidant activities. *Life Sciences 2007 Proceedings*, PC 571.
- Anese, M. D. and Nicoli, M. C. (2001). Optimum phytochemical release by process technology. in Dfannhauser, W., Fenwick, G. R. and Khokhar, S. (Eds.). *Biologically-active phytochemical in food*. Cambridge, UK., Bookcraft Ltd., 455-470.
- Anese, M., Calligaris, S., Nicoli, M. C. and Massini, R. (2002). Influence of total solids concentration and temperature on the changes in redox potential of tomato pastes. *International Journal of Food Science and Technology*, 38(1), 55-61.
- Anonymous. (1945). Treatment of leprosy. *Nature*: 155, 601.
- Anonymous. 2004. *Natural Herbs*. [online]. Available <http://www.101herbs.com> (16 June 2007).
- AOAC. (2000). *Official Method of Analysis of AOAC International*. 17th ed. The United States of America, ch.2, 4, 33.
- Asiatic acid. [online]. nd. Available <http://jadzuka.files.wordpress.com>. (30 September 2008).
- Arena, E., Fallico, B. and Maccarone, E. (2001). Thermal damage in blood orange juice: kinetics of 5-hydroxymethyl-2-furancarboxaldehyde formation. *International Journal of Food Science and Technology*, 36(2), 145-151.
- Aziz, Z. A., Davey, M. R., Power, J. B., Anthoy, P., Smith, R. M. and Lowe, K. C. (2007). Production of asiaticoside and madecassoside in *Centella asiatica* *in vitro* and *in vivo*. *Biologia Plantarum*, 51(1), 34-42.

- Babu, T. D., Kuttan, G. and Padikkala, J. (1995). Cytotoxic and anti-tumour properties of certain taxa of Umbelliferae with special reference to *Centella asiatica* (L. Urban). *Journal of Ethnopharmacology*, 48(1), 53-57.
- Balny, C. (1995). Thermodynamics of transient enzyme kinetics. *High pressure bioscience and biotechnology*. Amsterdam: Elsevier, 13, 231-236.
- Balny, C., Masson, P. and Heremans, K. (2002). High pressure effects on biological macromolecules: from structural changes to alteration of cellular processes. *Biochimica Biophysica. Acta Protein Structure and Molecular Enzymology*, 1595(1-2), 3-10.
- Bao, B. and Chang, K. V. (1994). Carrot colour, carotenoids and nonstacy polysaccharides as affected by processing condition. *Journal of Food Science*, 59, 1155-1158.
- Baranauskine, R., Venshutonis, R. P. and Demyttenaere, J. C. R. (2003). Sensory and instrumental evaluation of catnip (*Napeta Caaria* L.) aroma. *Journal of Agricultural and Food Chemistry*, 51, 3840-3848.
- Basak, S. and Ramaswamy, H. S. (1998). Effect of high pressure processing on the texture of selected fruits and vegetables. *Journal of Texture Studies*, 29, 587-601.
- Baxter, I. A., Easton, K., Schneebeli, K. and Whitfield, F. B. (2005). High pressure processing of Australian navel orange juices: sensory analysis and volatile flavor profiling. *Innovative Food Science and Emerging Technologies*, 6, 372-387.
- Bengtsson, B. I. (1969). Nutritional effects of food processing. *Journal of Food Technology*, 4, 141-145.
- Bender, A. E. (1987). *Development in Food Preservation-4*. Cambridge, Wlsevier Appied Science, 1.
- Benzie, I. F. F. and Stain, J. J. (1996). The ferric reducing ability of plasma (FRAP) as a measure of antioxidant power: The FRAP Assay. *Analytical Biochemistry*, 239, 70-76.
- Beveridge, T., Franz, K. Y. and Harrison, J. E. (1986). Clarified natural apple juice: production and storage stability of juice and concentrate. *Journal of Food Science*, 51(433), 411-414.
- Bhattacharya, S. C. (1956). Constituents of *Centella asiatica*: part 1. Examination of the Ceylonese variety. *Journal of Indian Chemical Society*, 33, 8, 579-586.

- Bhupinder, K., Sharma, K. P. and Harinder, K. (1991). Studies on the development and storage stability of ready to serve bottled sugarcane juice. *International Journal of Tropical Agricultural*, 9(2), 128-134.
- Birch, G. G., Bointon, B. M., Rolfe, E. J. and Selman, J. D. (1974). Quality changes related to vitamin C in fruit juice and vegetables processing. in Birch, G. G. and Parker, K. (Eds.). *Vitamin C*, Applied Science, 40.
- Boiteau, P., Buzas, A., Lederer, E. and Polonski, J. (1949). Derivatives of *Centella asiatica* used against leprosy. Chemical constitution of asiaticoside. *Nature*, 163, 258.
- Boiteau, P. and Ratsimanga, A. R. (1956). Asiaticoside extracted from *Centella asiatica*, its therapeutic uses in the healing of experimental or refractory wounds, leprosy, skin tuberculosis and lupus. *Therapie*, 11, 125-149.
- Bonte, F., Dumas, M., Chaudagne, C. and Meybeck, A. (1995). *Annales Pharmaceutiques Francaises*, 53, 38.
- Bontems, J. E. (1941). A new heteroside, asiaticoside, isolated from *Hydrocotyle asiatica* (Umbelliferae). *Bullentine of Science Pharmacology*, 49, 186.
- Bosse, J. P., Papillon, J., Frenette, G., Danserean, J., Cadotte, M. and Lorier, J. L. (1979). Clinical study of a new antikeloid agent. *Annals of Plastic Surgery*, 3, 13-21.
- Bottcher, H. (1993). Zur Bewertung des Nahrwertes von Gemuse. *Die Nahrung*, 37, 20-27.
- Brandis, A., Vainstein, A. and Goldschmidt, E. E. (1996). Distribution of chlorophyllase among components of chloroplast membranes in *Citrus sinensis* organs. *Plant Physiology and Biochemistry*, 34, 49-54.
- Brinkhaus, B., Lindner, M., Schuppan, D. and Hahn, E. G. (2000). Chemical, pharmacological and clinical profile of the East Asian medical plant *Centella asiatica*: Review Article. *Phytomedicine*, 7(5), 427-448.
- Brunneton, J. (1999). *Pharmacognosy, Phytochemistry of Medicinal Plants*, 2nd Edition. Secaucus, NJ, Paris.
- Burnouf-Radosevich, M. and Delfel, N. E. (1986). High performance liquid chromatography of triterpene saponins. *Journal of Chromatography A*, 368, 433-438.

- Butz, P., Edenharder, R., Fister, H. and Tauscher, B. (1997). The influence of high pressure processing on anti-mutagenic activities of fruit and vegetable juices. *Food Research International*, 30, 287-291.
- Butz, P., Koller, D. and Tauscher, B. (1994). Ultra-high pressure processing of onions: Chemical and sensory changes. *Lebensmittel Wissenschaft und Technologie*, 27, 463-467.
- Butz, P. and Tauscher, B. (1997). High pressure treatment of fruits and vegetables: problems and limitations. in Heremans, K. (Ed.). *High Pressure Research in the Bioscience and Biotechnology*. Belgium: Leuven University Press, 435-438.
- Butz, P. and Tauscher, B. (2002). Emerging technologies: chemical aspects. *Food Research International*, 35(3), 279-284.
- Butz, P., Edenharder, R., Fernandez Garcia, A., Fister, H., Merkel, C. and Tauscher, B. (2002). Changes in functional properties of vegetables induced by high pressure treatment. *Food Research International*, 35, 295-300.
- Cabrita, L., Fossen, T. and Andersen, O. M. (2000). Color and stability of six common anthocyanidin 3-glycoside in aqueous solution. *Food Chemistry*, 68, 101-107.
- Calvo, C. and Duran, L. (1997). Propiedades físicas II. Ópticas y color. En: Temas en Tecnología de Alimentos. Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo (CYTED). Instituto Politécnico Nacional, Mexico.
- Canet, W. (1996). Estabilidad e importancia de la vitamina C en vegetales congelados. *Alimentación. Equipos y Tecnología*, 5, 75-87.
- Cano, M. P., Hernandez, A. and De Ancos, B. (1997). High-pressure and temperature effects on enzyme inactivation in strawberry and orange products. *Journal of Food Science*, 62(1), 85-88.
- Cao, G., Sofic, E. and Prior, R. L. (1996). Antioxidant capacity of tea and common vegetables. *Journal of Agricultural and Food Chemistry*, 44, 3426-3431.
- Carabasa-Giribert, M. and Ibriz-Ribas, A. (2000). Kinetics of colour development in aqueous glucose systems at high temperatures. *Journal of Food Engineering*, 44(3), 181-189.

- Carelli, A. A., Crapiste, G. H. and Lozano, J. E. (1991). Activity coefficients of aroma compounds in model solutions simulating apple juice. *Journal of Agricultural and Food Chemistry*, 39, 1636-1640.
- Castellani, C., Marai, A. and Vacchi, P. (1981). The *Centella asiatica*. *Bollentin chemical farmacia*, 120, 570-605.
- Castro, S. M., Van Loey, A., Saraiva, J. A., Smout, C. and Hendrickx, M. (2006). Inactivation of pepper (*Capsicum annuum*) pectin methylesterase by combined high pressure and temperature effects. *Journal of Food Engineering*, 75, 50-58.
- Chaiwanichsiri, S., Dharmsuriya, N., Sonthornvit, N. and Janjarasskul, T. (2000). Process improvement to preserve the color of instant pennywort *Centella asiatica* (Linn.) Urban. *Journal Science Research Chulalongkorn University*, 25(2), 237-243.
- Chang, S. S., Ostric-Matijasevic, B., Hsieh, O. A. L. and Huang, C. L. (1977). Natural antioxidants from rosemary and sage. *Journal of Food Science*, 42, 1102-1104.
- Chanwitheesuk, A., Teerawutgulrag, A. and Rakariyatham, N. (2005). Screening of antioxidant activity and antioxidant compounds of some edible plants of Thailand. *Food Chemistry*, 92, 491-497.
- Cheftel, J. C., Cuq, J. L. and Lorient, D. (1985). Amino acids, peptides and proteins. in Fennema, O. R. (Ed.). *Food Chemistry*. 2nd ed. New York, Marcel Dekker Inc.
- Cheftel, J. C. (1991). Applications des hautes pressions en technologie alimentaire. *Industries Agro-Alimentaires*, 141-153.
- Cheng, C. L., Guo, J. S., Luk, J. and Koo, M. W. L. (2004). The healing effects of *Centella asiatica* on acetic acid induced gastric ulcers in rats. *Life Sciences*, 74, 2237-2249.
- Che Rahani, Z. (1998). Teknologi Pemrosesan Minuman Buah-buahan. *Nota Kurus Pemrosesan Hasil Buah-buahan Tropika*. Johor Bahru, MARDI, 1-13.
- Choi, M. H., Kim, G. H. and Lee, H. S. (2002). Effects of ascorbic acid retention on juice color and pigment stability in blood orange (*Citrus sinensis*) juice during refrigerated storage. *Food Research International*, 35, 753-759.

- Choi, Y., Lee, S. M., Chun, J., Lee, H. B. and Lee, J. (2006). Influence of heat treatment on the antioxidant activities and polyphenolic compounds of Shiitake (*Lentinus edodes*) mushroom. *Food Chemistry*, 99(2), 381-387.
- Chong, G. and Cossius, A. R. (1993). A differential polarized fluorometric study of the effect of high hydrostatic pressure upon the fluidity of cellular membranes. *Biochemical Journal*, 22, 409.
- Chou, Y.-K. (2005). *Studies on the essential oil constituent from the Hydrocotyle Sibthorpioides Lam. and biological assays*. Master's thesis. Chung Yuan Christian University, Taiwan.
- Chuah, E. C. (1984). Principle of thermal processing. *Maklumat Teknologi Makanan*. ISSN 0127-4821. Kuala Lumpur, MARDI, 1-2.
- Clegg, K. M. (1966). Citric acid and the browning of solutions containing ascorbic acid. *Journal of the Science of Food and Agriculture*, 17 (12), 546.
- Coldren, C. D., Hashim, P., Ali, J. M., Oh, S. K., Sinskey, A. J. and Rha, C. (2003). Gene expression changes in the human fibroblast induced by *Centella asiatica* triterpenoids, *Planta Medica Journal*, 69, 725-732.
- Colour system. [online]. nd. Available <http://www.visionsystems.com> (20 September 2009).
- Cook, K., Dodds, T., Hlady, W., Wells, J., Barret, T. and Punr, N. (1998). Outbreak of *Salmonella* serotype Hartford infections associated with unpasteurized orange juice. *Journal of the American Medical Association*, 280, 1504-1509.
- Cook, N. C. and Samman, S. (1996). Flavonoids-chemistry, metabolism, cardioprotective effect and dietary sources. *Journal of Clinical Biochemistry and Nutrition*, 7, 66-76.
- Cornwell, C. J. and Wrolstad, R. E. (1981). Causes of browning in pear juice concentrate during storage. *Journal of Food Science*, 46, 515-518.
- Cox, D. N., Rajasuriya, S., Soysa, P. E., Gladwin, J. and Ashworth, A. (1993). Problems encountered in the community based production of leaf concentrated as a supplement for pre-school children in Sri Lanka. *International Journal of Food Science and Nutrition*, 44, 123-132.

- Court, W. A., Hendel, J. G. and Elmi, J. (1996). Reversed-phase high performance liquid chromatography determinations of ginsenoside of *Panax quinquefolium*. *Journal of Chromatography A*, 755, 11.
- Crelier, S., Robert, M. C., Claude, J. and Juillerat, M. A. (2001). Tomato (*Lycopersicon esculentum*) pectin methylesterase and polygalacturonase behaviors regarding heat- and pressure-induced inactivation. *Journal of Agricultural and Food Chemistry*, 49, 5566-5575.
- Curty, C., Engel, N. and Gossauer, A. (1995). Evidence for a monooxygenase-catalyzed primary process in the catabolism of chlorophyll. *FEBS Letters*, 364, 41-44.
- Dalmadi, I., Polyak-Feher, K. and Farkas, J. (2007). Effects of pressure and thermal-pasteurization on volatiles of some berry fruits. *High Pressure Research*, 27, 169-172.
- Daoudi, L., Quevedo, J. M., Trujillo, A. J., Capdevila, F., Bartra, E., Minguez, S. and Guamis, B. (2002). Effects of high-pressure treatment on the sensory quality of white grape juice. *High Pressure Research*, 22, 705-709.
- Davey, M.W., Van Montagu, M., Inzé, D., Sanmartin, M., Kanellis, A., Smirnoff, N., Benzie, I. J. J., Strain, J. J., Favell, D. and Fletcher, J. (2000). Plant L-ascorbic acid, chemistry, function, metabolism, bioavailability and effects of processing. *Journal of the Science of Food and Agriculture*, 80 (7), 825-860.
- Davidek, J., Velisek, J. and Pokorny, J. (1990). *Chemical changes during food processes*. Oxford: Elsevier.
- De Ancos, B., Gonzalez, E. and Pilar Cano, M. (2000). Effect of high pressure treatment on the carotenoid composition and the radical scavenging activity of persimmon fruit purees. *Journal of Food Chemistry*, 48, 3542-3548.
- De Ancos, B., Sgroppo, S., Plaza, L. and Cano, M.P. (2002). Possible nutritional and health-related value promotion in orange juice preserved by high-pressure treatment. *Journal of the Science of Food and Agriculture*, 82 (8), 790-796.
- DeLong, E. F. and Yayanos, A. A. (1985). Adaptation of the membrane lipids in deep sea bacteria to changes in hydrostatic pressure. *Science*, 228, 1101-1103.
- Department of Medical Sciences. (2007). Monographs: *Centella asiatica*. *Thai Herbal Pharmacopoeia Vol. III*, Ministry of Public Health, Nonthaburi, Thailand.

- de Pauda, L. S., Bunyapraphatsara, N. and Lemmens, R. H. M. J. (1999). *Plant resources of South-East Asia: Medicinal and poisonous plants 1*, Backhuys Publishers, Leiden.
- Dere, S., Gones, T. and Sivaci, R. (1998). Spectrophotometric Determination of Chlorophyll-A, B and Total Carotenoid Contents of Some Algae Species Using Different Solvents. *Turkish Journal of Botany*, 22, 13-17.
- De Roeck, A., Sila, D. N., Duvetter, T., Van Loey, A. and Hendrickx, M. (2007). Effect of high pressure/high temperature processing on cell wall pectic substances in relation to firmness of carrot tissue. *Food Chemistry*. [online]. Available <http://dx.doi.org/10.1016/j.foodchem.2007.09.076>.
- Desrosier, N. W. and Desrosier, J. N. (1977). *The technology of food preservation*. Westport, Connecticut, AVI Publishing Company, Inc.
- Dimick, P. S. and Hoskin, J. C. (1983). Review of apple flavor-state of the art. *CRC Critical Reviews in Food Science and Nutrition*, 18, 387-409.
- Diplock, A. T. (1994). Antioxidant nutrient and diseases prevention: an overview. *American Journal of Clinical Nutrition*, 53(1), 189s-193s.
- Donsi, G., Ferrari, G. and Di Matteo, M. (1996). High pressure stabilization of orange juice: evaluation of the effects of process conditions. *Italian Journal of Food Sciences*, 2, 99-106.
- Dreosti, I. E. (2000). Antioxidant polyphenols in tea, cocoa, and wine. *Journal of Nutrition*, 16, 692-694.
- Duh, P. and Yen, G. (1997). Antioxidant activity of three herbal water extracts. *Food Chemistry*, 60(4), 639-645.
- Dung, N. X., Moi, L. D., Nam, V. V., Cu, L. D. and Leclercq, P. A. (1995). Volatile constituents of the aerial parts of *Orthodon calveriei* Level from Vietnam. *Journal of Essential Oil Research*, 7, 111-112.
- Dutta, T. and Basu, U. P. (1962). Triterpenoids: Part 1- Thankuniside and Thankunic acid-A new triterpene glycoside & acid from *Centella asiatica* Linn. (Urb.). *Journal of Science and Industrial Research*, 21B, 239-240.

- Duvetter, T., Fraeye, I., Van Hoang, T., Van Buggenhout, S., Verlent, I., Smout, C., Van Loey, A. and Hendrickx, M. (2005). Effect of pectinmethylesterase infusion methods and processing techniques on strawberry firmness. *Journal of Food Science*, 70(6), S383-S388.
- EC. (1997). Regulation (EC) No. 258/97 of the European Parliament and of the Council of 27 January 1997 concerning novel foods and novel food ingredients. *Official Journal European Community*, No. L43/1-6, 14.2.97.
- Eichner, K. (1981). Antioxidant effects on Maillard reaction intermediates. *Progress in Food Nutrition and Science*, 5, 441-451.
- Elkins, E. R. (1979). Nutrient content of raw and canned green beans, peaches and potatoes. *Food Technology*, 66-79.
- Erdman Jr., J. W. (1979). Effect of preparation and service of food and nutrient value. *Food Technology*, 62-65.
- Esteve, M. J., Frigola, A., Rodrigo, C. and Rodrigo D. (2005). Effect of storage period under variable conditions on the chemical and physical composition and colour of Spanish refrigerated orange juices. *Food and Chemical Toxicology*, 43, 1413-1422.
- Ewaidah, E. H. (1992). Studies on commercially canned juice produced locally in Saudi Arabia: Part 3-physicochemical, organoleptic and microbiological assessment. *Food Chemistry*, 44, 103-111.
- Ewald, C., Fjelkner-Modig, S., Johnsson, K., Sjöholm, I. and Akesson, B. (1999). Effect of processing on major flavonoids in processed onion, green bean and peas. *Food Chemistry*, 64, 231-235.
- Fabiola Maria, N., Nunesa, M. C. C., Veloso, P. A., de Pereira, P. and de Andrade, J. B. (2005). Gas-phase ozonolysis of the monoterpenoids (S)-(+)-carvone, (R)-(-)-carvone, (-) carveol, geraniol and citral. *ATM environment*, 39(40), 7715-7730.
- Fachin, D., Van Loey, A., Ly Nguyen, B., Verlent, I., Oey, I. and Hendrickx, M. (2003). Inactivation kinetics of polygalacturonase in tomato juice. *Innovative Food Science and Emerging Technologies*, 4(2), 135-142.
- Fan, X. (2005). Impact of ionizing radiation and thermal treatments on furan levels in fruit juices. *Journal of Food Science*, 70(7), 409-414.

- Faridah, A. F. (1998). The commercialization of local medicinal herb in skin care and toiletries products. in Nair, M. N. B. and Nathan, G. (Eds). *Medicinal plants: CURE for 21st Century (Biodiversity, Conservation and Utilization of Medicinal plants)*. Selangor, UPM., 130-132.
- Farnsworth, N. R. and Buryapraphatsara, N. (Eds.). (1992). Thai Medicinal Plants: Recommended for primary health care system. *Bangkok: Prachachon*, 111-114.
- Fennema, O. R. (1985). Water and Ice. in Fennema, O. R. (Ed.). *Food Chemistry*. 2nd ed. New York, Marcel Dekker Inc, 23-67.
- Fernandez, D. P., Goodwin, A. R. H., Lemmon, E. W., Sengers, J. and Williams, R. C. (1997). A formulation for the static permittivity of water and steam at temperatures from 238K to 873K at pressures up to 1200 MPa, including derivatives and Debye-Huckel coefficients. *Journal of Physical and Chemical Reference Data*, 26, 1125-1166.
- Fernandez Garcia, A., Butz, P., Bognar, A. and Tauscher, B. (2001a). Antioxidative capacity, nutrient content and sensory quality of orange juice and an orange-lemon-carrot juice product after high pressure treatment and storage in different packaging. *European of Food Research and Technology*, 213, 290-296.
- Fernandez Garcia, A., Butz, P. and Tauscher, B. (2001b). Effects of high pressure processing on carotenoid extractability, antioxidant activity, glucose diffusion, and water binding of tomato puree (*Lycopersicon esculentum* Mill.). *Journal of Food Science*, 66(7), 1033-1038.
- Fezah, O., Radzali, M., Marziah, M., Johari, R. and Mohd. A. S. (2000). Polyphenol and salicylic acid levels in fresh and air-dried powder of *Centella asiatica*, L. (Urban). *Proceeding of the 16th national seminar on natural products*. Selangor, MARDI, 107-110.
- Fito, P. J., Clemente, G. and Sanz, F. J. (1983). Rheological behaviour of tomato concentrate (hot break and cold break). *Journal of Food Engineering*, 2, 51-62.
- Flamini, G., Cioni, P.L., Morelli, I., Macchia, M. and Ceccarini, L. (2002). Main agronomic-productive characteristics of two ecotypes of *Rosmarinus officinalis* L. and chemical. *Journal of Agricultural and Food Chemistry*, 50(12), 3512-3517.
- Flavonet. [online]. Available: <http://www.nysaes.cornell.edu/flavonet/index.html>

- Fonberg-Broczek, M., Arabas, J., Kostrzewa, E., Reys, A., Szezawski, J., Szczepek, J., Windy, B. and Porowski, S. (1995). High pressure treatment of fruit, meat and cheese products: Equipment, methods and results. in *Processing Foods. Quality Optimisation and Process Assessment*. Oliveriva, F.A.R., Oliveriva, J.C. (Eds.). CRC Press LLC, 281-300.
- Francis, F. J. (1985). Pigments and other colorants in Fennema, O. R. (Ed.). *Food Chemistry*. 2nd ed. New York, Marcel Dekker Inc., 546-582.
- Frankel, E. N. and Meyer, A. S. (2000). The problem of using one dimensional method to evaluate multifunctional food and biological antioxidants. *Journal of the Science of Food and Agriculture*, 80, 1925-1941.
- Garcia-Palazon, A., Suthanthangjai, W., Kajda, P. and Zabetakis, I. (2004). The effects of high hydrostatic pressure on β -glucosidase, peroxidase and polyphenoloxidase in red raspberry (*Rubus idaeus*) and strawberry (*Fragaria x ananassa*). *Food Chemistry*, 88, 7-10.
- Gardner, P. T., White, T. A. C., McPhail, D. B. and Duthie, G. G. (2000). The relative contributions of vitamin C, carotenoids and phenolics to the antioxidant potential of fruit juices. *Food Chemistry*, 68, 471-474.
- Gartner, C., Stahl, W. and Sies, H. (1997). Lycopene is more bioavailable from tomato paste than from fresh tomatoes. *American Journal of Clinical Nutrition*, 66, 116-122.
- Gazzani, G., Papetti, A., Massolini, G. and Daglia, M. (1998). Anti and prooxidant activity of soluble components of some common diet vegetables and effect of thermal treatment. *Journal of Agricultural and Food Chemistry*, 46, 4118-4122.
- Geroge, V. K. and Gnanarethinan, J. L. (1975). Free amino acids in *Centella asiatica*. *Current Science*, 44, 21, 790.
- Gervilla, R., Ferragut, V. and Guamis, B. (2000). High pressure inactivation of microorganisms inoculated into ovine milk of different fat contents. *Journal of Dairy Science*, 83, 674-682.
- Gil-Izquierdo, A., Gil, M. I. and Ferreres, F. (2002). Effect of processing techniques at industrial scale on orange juice antioxidant and beneficial health compounds. *Journal of Agricultural and Food Chemistry*, 50 (18), 5107-5114.

- Gimenez, J., Kajda, P., Margomenou, L., Piggott, J. R. and Zabetakis, I. (2001). A study on the colour and sensory attributes of high hydrostatic-pressure jams as compared with traditional jams. *Journal of Science and Food Agriculture*, 81, 1228-1234.
- Godoy, H. T. and Rodriguez-Amaya, D. B. (1987). Changes in individual carotenoids on processing and storage mango (*Mangifera indica*) slices and puree. *International Journal of Food Science and Technology*, 22, 451-460.
- Goh, S. H., Chuah Mok, J. S. L. and Soepadmo, E. (1995). *Malaysian medicinal plant for treatment of cardiovascular diseases*. Petaling Jaya: Pelanduk Publications.
- Gomes, M. R. A. and Ledward, D. A. (1996). Effect of High Pressure Treatments on the Activity of Some Polyphenoloxidases. *Food Chemistry*, 56, 1-5.
- Goodman, C. L., Fawcett, S. and Barringer, S. A. (2002). Flavor, viscosity, and color analyses of hot and cold break tomato juices. *Journal of Food Science*, 67 (1), 404-408.
- Götz, J. and Weisser, H. (2002). Permeation of aroma compounds through plastic films under high pressure: *in-situ* measuring method. *Innovative Food Science and Emerging Technologies*, 3, 25-31.
- Gregory III, J. F. (1996). Vitamins. in Fennema, O. R. (Ed.), *Food Chemistry* (3rd ed., pp. 559-568). New York: Marcel Dekker.
- Grimaldi, R., De Ponti, F., Dangelo, L., Caravaggi, M., Guidi, G., Lecchini, S., Frigo, G. M. and Crema, A. (1990). Pharmacokinetics of the total triterpenic fraction of *Centella asiatica* after single and multiple administrations to healthy volunteers. A new assay for asiatic acid. *Journal of Ethnopharmacology*, 28 (2), 235-241.
- Gueguen, Y., Chemardin, P., Janbon, G., Arnaud, A. and Galzy, P. (1996). A very efficient β -glucosidase catalyst for the hydrolysis of flavor precursors of wines and fruit juices. *Journal of Agricultural and Food Chemistry*, 44, 2336-2340.
- Guerrero-Beltran, J. A., Swanson, B. G. and Barbosa-Canovas, G. V. (2005). High hydrostatic pressure processing of mango puree containing anti browning agents. *Food Science and Technology International*, 11(4), 261-267.
- Gunther, B. and Wagner, H. (1996). Quantitative determination of triterpene in extracts and phytopreparation of *Centella asiatica* (L.) Urban. *Phytomedicine*, 3, 59-65.

- Guo, F. Q., Liang, Y. Z., Xu, C. J., Li, X. N. and Huang, L. F. (2004). Analyzing of the volatile chemical constituents in *Artemisia capillaries* herbal by GC-MS and correlative chemometric resolution methods. *Journal of Pharmaceutical and Biomedical Analysis*, 35, 469-478.
- Gupta, S., Lakshmi, A. J., Manjunath, M. N. and Prakash, J. (2005). Analysis of nutrient and antinutrient content of underutilized green leafy vegetables. *Lebensmittel Wissenschaft und Technologie*, 38, 339-345.
- Haleva-Toledo, E., Naim, M., Zehavi, U. and Rouseff, R. L. (1999). Formation of α terpineol in citrus juices, model and buffer solutions. *Journal of Food Science*, 64, 838-841.
- Halliwell, B. (1989). Protection against tissue damage *in vivo* by desferrioxamine: What is its mechanism of action?. *Free radical Biology and Medicine*, 7, 645-651.
- Haraguchi, H., Hashimoto, K. and Yagi, A. (1992). Antioxidative substances in leaves of *Polygonum hydropiper*. *Journal of Agriculture and Food Chemistry*, 40, 1349.
- Harborne, J. B. and Williams, C. A. (2000). Advances in flavonoid research since 1992. *Phytochemistry*. 55(6), 481-504.
- Harmon, A. D. (1997). Solid-phase microextraction for the analysis of flavors. in Marsili, R. (Ed.), *Techniques for analyzing food aroma*, Marcel Dekker Inc, New York.
- Harris, R. S. (1975). General discussion on the stability of nutrients. in Harris, R.S. and Karmas, E. (Eds.). *Nutritional evaluation of food processing*. 2nd ed. Westport, The AVI publishing Co., Inc.
- Haruethaitanasant, V. (1978). *Principles of food Preservation and Fundamentals of Fruit and Vegetable Processing* (in Thai). Kasetsart University, Bangkok, Thailand.
- Hashizume, M. (2007). *A study of factors affecting the development of light-induced off-flavours in cloudy apple juice*. Ph.D thesis, University of Reading, UK.
- Hatanaka, A. (1996). The fresh green odor emitted by plants. *Food Reviews International*, 12, 303-350.
- Hausen, B. M. (1993). *Centella asiatica* (Indian pennywort), an effective therapeutic but a weak sensitizer. *Contact Dermatitis*, 29, 175-179.
- Hawley, S.A. (1978). High pressure techniques. *Methods in Enzymology*, 49, 14-25.

- Hayashi, R. (1989). Application of high pressure to food processing and preservation: philosophy and development. *Engineering and Food*. UK: Elsevier, 2, 815-826.
- Hayes, W. A., Smith, P. G. and Morris, A. E. J. (1998). The production and quality of tomato concentrates. *Critical Reviews in Food Science and Nutrition*, 38(7), 537-564.
- Hendrickx, M., Ludikhuyze, L., Van den Broeck, I. and Weemaes, C. (1998). Effects of high pressure on enzymes related to food quality. *Trends in Food Science and Technology*, 9(5), 197-203.
- Hendry, G. A. F., Houghton, J. D. and Brown, S. B. (1987). The degradation of chlorophyll. A biological enigma. *New Phytologist Journal*, 107, 255-302.
- Henkel, Y., Brunne, R. M., Muller, H. and Reichel, F. (1999). Statistical investigation into the structural complementarity of natural products and synthetic compounds, *Angewandte Chemie-International Edition*, 38, 643-647.
- Henrix, C. M. and Redd, J. B. (1995). Chemistry and technology of citrus juices and by products. in Ashurst, P. R. (Ed.). *Production and packaging of non-carbonated fruit juice and fruit beverages*. London, Blackie Academic Professional, 53-87.
- Heremans, K. and Smeller, L. (1998). Review: Protein structure and dynamics at high pressure. *Biochimica et Biophysica Acta*, 1386, 353-370.
- Hertog, M. G. L., Bueno de Mesquita, H. B., Fehily, A. M., Sweetnam, P. M., Elwood, P. C. and Kromhout, D. (1996). Fruit and vegetable consumption and cancer mortality in the Caerphilly Study. *Cancer Epidemiology, Biomarkers and Prevention*. 5, 673-677.
- Hite, B. H. (1899). The effect of pressure in the microbiology of high pressure processing, *Trends in Food Science Technology*, 9, 152-158.
- Holters, C., Sojka, B. and Ludwig, H. (1997). Pressure-induced germination of bacterial spores from *Bacillus subtilis* and *Bacillus stearothermophilus*. in Heremans, K. (Ed.), *High Pressure Research in the Biosciences and Biotechnology*: Leuven University Press, 257-260.
- Hoover, D. G. (1993). Pressure effects on biological systems. *Food Technology*, 47(6), 150-155.

- Horie, Y. N., Kimura, K. I. and Ida, M. S. “*Jams treated at high pressure*”. US Patent, 5,075,124, 1991.
- Hörtensteiner, S. (1999). Chlorophyll breakdown in higher plants and algae. *Cellular and Molecular Life Sciences*, 56, 330-347.
- Hörtensteiner, S., Vicentini, F. and Matile, P. (1995). Chlorophyll breakdown in senescent cotyledons of rape, *Brassica napus* L. enzymatic cleavage of pheophorbide *a* *in vitro*. *New Phytologist Journal*, 129, 237-246.
- Hörtensteiner, S., Wüthrich, K. L., Matile, P., Ongania, K-H. and Kräutler, B. (1998). The key step in chlorophyll breakdown in higher plants: cleavage of pheophorbide *a* macrocycle by a monooxygenase. *The Journal of Biological Chemistry*, 273, 15335-15339.
- Houlka, M., Strohalm, J., Kocurova, K., Totusek, J., Lefnerova, D., Triska, J., Vrchotova, N., Fiedlerova, V., Holasova, M., Gabrovska, D. and Paulickova, I. (2006). High pressure and foods-fruit/vegetable juice. *Food Engineering*, 77, 386-398.
- Hsu, K-C. (2008). Evaluation of processing qualities of tomato juice induced by thermal and pressure processing. *Lebensmittel-Wissenschaft und e Technologie*, 41, 450-459.
- Hsu, K-C., Tan, F-J. and Chi, H-Y. (2008). Evaluation of microbial inactivation and physicochemical properties of pressurized tomato juice during refrigerated storage. *Lebensmittel-Wissenschaft und e Technologie*, 41, 367-375.
- Hunter, K. J. and Fletcher, J. M. (2002). The antioxidant activity and composition of fresh, frozen, jarred and canned vegetables. *Trends in Food Science and Technology*, 10, 94-100.
- Hurt, H. D. (1979). Effect of canning in the nutritive value of vegetables. *Food Technology*, 62-65.
- Hussein, I. and El-Tohamy (1990). Vitamin A potency of carrot and spinach carotenes in human metabolic studies. *International Journal for Vitamin and Nutrition Research.*, 60, 229-235.
- Hussin, M., Abdul-Hamid, A., Mohamad, S., Saari, N., Ismail, M. and Bejo, M. H. (2007). Protective effect of *Centella asiatica* extract and powder on oxidative stress in rats. *Food Chemistry*, 100, 535-541.

- Inamdar, P. K., Yeole, R. D., Ghogare, A. B. and de Souza, N. J. (1996). Determination of biologically active constituents in *Centella asiatica*. *Journal of Chromatography A*, 742, 127-130.
- Indu Bala, J. and Ng, L. T. (1999). *Herbs: The green pharmacy of Malaysia*. Kuala Lumpur, Vinpress Sdn. Bhd, 21-23.
- Jacinda, T. J., Meyer, R. and Dubery, I. A. (2008). Plant Cell. Tissue Organ Culture 94, 1. in Rafamantanana, M. H., Rozet, E., Raelison, G. E., Cheuk, K., Ratsimamanga, S. U., Hubert, P. and Quetin-Leclercq, J. (2009). An improved HPLC-UV method for the simultaneous quantification of triterpenic glycosides and aglycones in leaves of *Centella asiatica* (L.) Urb (APIACEAE). *Journal of Chromatography B*, 877, 2396-2402.
- Jackman, R. L. and Smith, J. L. (1996). Anthocyanins and betalains. in *Natural Food Colorants*. Hendry, G. F. and Houghton, J. D. (Eds.). Blackie Academic & Professional. London, England, 244-309.
- Jadhav, S. J., Nimbalkar, S. S., Kulkarni, A. D. and Madhavi, D. L. (1996). Lipid oxidation in biological and food system. in Madhavi, D. L., Deshpande, S. S. and Salunkhe, D. K. (Eds.). *Food Antioxidants*. London and New York, Elsevier Applied Science, 5-63.
- Jaenicke, R. (1991). Protein stability and molecular adaptation to extreme conditions. *European. Journal of Biochemistry*, 202, 715-728.
- Jaganath, I. B. and Ng, L. T. (1999). *Herbs: the green pharmacy of Malaysia*. Kuala Lumpur: Vinpress.
- Jain, P. K. and Agrawal, R. K. (2008). High Performance Liquid Chromatographic Analysis of Asiaticoside in *Centella asiatica* (L.) Urban, *Chiang Mai Journal of Science*, 35(3), 521-525.
- Janave, M. T. (1997). Enzymic degradation of chlorophyll in cavendish bananas: *in vitro* evidence for two independent degradative pathways. *Plant Physiology and Biochemistry*, 35, 837-846.

- Jannok, P. (2007). *Effect of ultra-high pressure on physical, chemical and microbiological qualities of pennywort juice*. Master's thesis in Food Science and Technology, Faculty of Agro-Industry, Chiang Mai University, Thailand.
- Jayashree, G., Kurup Muraleedhara, G., Sudarslal, S. and Jacob, V. B. (2003). Antioxidant activity of *Centella asiatica* on lymphoma-bearing mice. *Fitoterapia*, 74(5), 431-436.
- Jeong, S-M., Kim, S-Y., Kim, D-R., Jo, S-C., Nam, K.C., Ahn, D.U. and Lee, S-C. (2004). Effect of heat treatment on the antioxidant activity of extracts from citrus peels. *Journal of Agricultural and Food Chemistry*, 52(11), 3389-3393.
- Jerry, M. (1992). *March's Advance Organic Chemistry*, 4th ed. John Wiley & Sons Inc., New York.
- Jiang, Z. Y., Zhang, X. M., Zhou, J. and Chen, J. J. (2005). New triterpenoid glycosides from *Centella asiatica*. *Helvetica Chimica Acta*, 88, 297-303.
- Johnson-Flanagan, A. M. and Spencer, M. S. (1996). Chlorophyllase and peroxidase activity during degreening of maturing canola (*Brassica napus*) and mustard (*Brassica juncea*) seed. *Journal of Plant Physiology*, 97, 353-359.
- Jordan, M. J., Tillman, T. N., Mucci, B. and Laencina, J. (2001). Using HS-SPME to determine the effects of reducing insoluble solids on aromatic composition of orange juice. *Lebensmittel-Wissenschaft und e Technologie*, 34, 244-250.
- Jouquand C., Ducruet V. and Giampaoli, P. (2004). Partition coefficients of aroma compound in polysaccharide solutions by the phase ratio variation method. *Food Chemistry*, 85, 467-474.
- Kaack, K. and Austed, T. (1998). Interaction of vitamin C and flavonoids in elderberry (*Sambucus nigra* L.) during juice processing. *Plant Foods for Human Nutrition*, 52, 187-198.
- Kapoor, R., Ali, M. and Mir, S. R. (2003). Phytochemical investigation of *Centella asiatica* aerial parts. *Oriental Journal of Chemistry*, 19, 485-486.
- Kenawi, M. A., Shekib, L. A. and Elshimi, N. M. (1994). The storage effects of calcium-fortified orange juice concentrate in different packaging materials. *Plant Foods for Human Nutrition*, 45(3), 265-275.

- Kennedy, J. F., Rivera, Z. S., Lloyd, L. L., Warner, F. P. and Jumel, K. (1992). *L*-ascorbic acid stability in aseptically processed orange juice in TetraBrik cartons and the effect of oxygen. *Food Chemistry*, 45(5), 327-331.
- Kikuzaki, H. and Nakarani, N. (1993). Antioxidant effects of some ginger constituents. *Journal of Food Science*, 58(6), 1407-1410.
- Kilic, A., Hafizoglu, H., Kollmannsberger, H. and Nitz, S. (2004). Volatile constituents and key odorants in leaves, buds, flowers, and fruits of *Laurus nobilis* L. *Journal of Agriculture and Food Chemistry*, 52, 1601-1606.
- Kim, C-K., Hwang, Y-Y., Chang, J.Y., Choi, H. G., Lim, S-J. and Lee, M-K. (2001). Development of a novel dosage form for intramuscular injection of titrated extract of *Centella asiatica* in a mixed micellar system. *International Journal of Pharmaceutics*, 220, 141-147.
- Kim, W-J., Kim, J., Veriansyah, B., Kim, J-D., Lee, Y-W., Oh, S-G. and Tjandrawinata, R. R. (2009). Extraction of bioactive components from *Centella asiatica* using subcritical water. *Journal of Supercritical Fluids*, 48, 211-216.
- Kimura, K., Ida, M., Yosida, Y., Ohki, K., Fukumoto, T. and Sakui, N. (1994). Comparison of keeping quality between pressure-processed jam and heat-processed jam: changes in flavor components, hue, and nutrients during storage. *Bioscience Biotechnological Biochemistry*, 58(8), 1386-1391.
- Kloczko, I. and Radomski, M. (1996). Preservation of fruits, vegetables and juices by means of high hydrostatic pressure. *Przemysl Spozywczy*, 50(3), 25-30.
- Knorr, D. (1993). Effects of high-hydrostatic-pressure processes on food safety and quality. *Food Technology*, 47, 156-161.
- Kolakowski, P., Dumay, E. and Cheftel, J. C. (2001). Effects of high pressure and low temperature on beta-lactoglobulin unfolding and aggregation. *Food Hydrocolloids*, 15(3), 215-232.
- Kondjoyan, N. and Berdague, J. (1996). A compilation of relative retention indices for the analysis of aromatic compounds. *Edition du laboratoire flaveur*.
- Koo, H. M. and Suhaila, M. (2001). Flavonoid (Myricetin, Quercetin, Kaempferol, Luteolin and Apigenin) content of edible tropical plants. *Journal of Agricultural and Food Chemistry*, 49(6), 3106-3112.

- Kormin, S. B. (2005). *The effect of heat processing on triterpene glycosides and antioxidant activity of herbal pegaga (Centella asiatica (L.) Urban)*. Master's thesis in bioprocess: Faculty of chemical and natural resources engineering, Universiti Teknologi Malaysia, Malaysia.
- Kouniaki, S., Kajda, P. and Zabetakis, I. (2004). The effect of high hydrostatic pressure on anthocyanins and ascorbic acid in blackcurrants (*Ribes nigrum*). *Flavour and Fragrance Journal*, 19, 281-286.
- Krebbbers, B., Matser, A. M., Koets, M., Bartels, P. and Van den Berg, R. (2002a). Quality and storage-stability of high-pressure preserved green beans. *Journal of Food Engineering*, 54(1), 27-33.
- Krebbbers, B., Matser, A., Koets, M., Bartels, P. and Van den Berg, R. (2002b). High Pressure-temperature processing as an alternative for preserving basil. *High Pressure Research*, 22, 711-714.
- Krebbbers, B., Matser, A.M., Hoogerwerf, S. W., Moezelaar, R., Momassen, M. M. M. and van den Berg, R. W. (2003). Combined high-pressure and thermal treatments for processing of tomato puree: evaluation of microbial inactivation and quality parameters. *Innovations in Food Science and Emerging Technologies*, 4, 377-385.
- Kreutzmann, S., Thybo, A. K., Edelenbos, M. and Christensen, L. P. (2008). The role of volatile compounds on aroma and flavour perception in coloured raw carrot genotypes. *International Journal of Food Science and Technology*, 43(9), 1619-1627.
- Kunugi, S. and Tanaka, N. (2002). Cold denaturation of proteins under high pressure. *Biochimica Biophysica Acta Protein Structure and Molecular Enzymology*, 1595(1-2), 329-344.
- Kuroda, M., Mimaki, Y., Harada, H., Sakagami, H. and Sashida, Y. (2001). Five new triterpene glycosides from *Centella asiatica*. *Nature Medicine*, 55, 134-138.
- Labuza, T. P. and Baisier, W. M. (1992). The kinetics of nonenzymatic browning. in Schwartzberg, H. G. and Hartel, R. W. (Eds.). *Physical Chemistry of Foods*. Marcel Dekker Inc., New York, 595-649.
- Lambadarios, E. and Zabetakis, I. (2002). Does high hydrostatic pressure affect fruit esters?. *Lebensmittel-Wissenschaft und e Technologie*, 35, 362-366.

- Lamballerie-Anton, M., Teculescu, I., Bignon, J. and Ghoul, M. (1997). Influence d'un traitement par hautes pressions sur la qualite du jus d orange. *La conservation des aliments*. Paris: Lavoisier Tec-Doc., 529-534.
- Lambert, Y., Demazeau, G., Largeteau, A. and Bouvier, J-M. (1999). Changes in aromatic volatile composition of strawberry after high pressure treatment. *Food Chemistry*, 67, 7-16.
- Lambert, J. D., Hong, J., Yang, G., Liao, J. and Yang, C. S. (2005). Inhibition of carcinogenesis by polyphenols: evidence from laboratory investigations. *American Journal of Chincial Nutrition*, 81, 284-291.
- Lathrop, P. J. and Leung, H. K. (1980). Rates of ascorbic acid degradation during thermal processing of canned pea. *Journal of Food Science*, 45, 152-153.
- Lau, A., Woo, S. and Koh, H. (2003). Analysis of saponin in raw and steamed *Panax notoginseng* using high performance liquid chromatography with diode array detection. *Journal of Chromatography A*, 1011, 77-87.
- Lea, A. G. H. (1991). Apple juice. in Hick, D. (Ed.). *Production of non-carbonated fruit juice and fruit beverages*. Glassgow, Blackie, 182-225.
- Lea, A. G. H. (1992). Flavour, color and stability of fruit products: the effect of polyphenols. in: Hemingway, R. W., Laks, P. E. (Eds). *Plant polyphenols*. New York, Plenum Press, 827-847.
- Lea, A. G. H. and Arnold, G. M. (1978). The phenolics of ciders: Bitterness and Astringency. *Journal of the Science of Food and Agriculture*, 29, 478.
- Lee, K. W., Mossine, V. and Ortwerth, B. J. (1998). The relative ability of glucose and ascorbate to glycate and crosslink lens protein in vitro. *Experimental Eye Research*. 67, 95-104.
- Lefsrud, M., Kopsell, D., Wenzel, A. and Sheehan, J. (2007). Changes in kale (*Brassica oleracea* L. var. *acephala*) carotenoid and chlorophyll pigment concentrations during leaf ontogeny. *Scientia Horticulturae*. 112, 136-141.
- Lin, C. H. and Chen, B. H. (2005). Stability of carotenoids in tomato juice during storage. *Food Chemistry*, 90, 837-846.

- Lindsay, R. C. (1985). Food Additives. in Fennema, O. R.(Ed.). *Food Chemistry*. 2nd ed. New York, Marcel Dekker Inc, 629-688.
- Ling, A. P. K., Marziah, M. and Tan, S. E. (2000). Triterpenoids distribution in whole plant and callus cultures of *Centella asiatica* accessions. *Proceeding of the 16th national seminar on natural products*. Selangor. MARDI, 165-168.
- Liu, R. H. (2003). Health benefits of fruits and vegetables are from additive and synergistic combination of phytochemicals. *American Journal of Chincial Nutrition*. 78, 517-520.
- Lopez-Malo, A., Palou, E., Barbosa-Canovas, G. V., Welti-Chanes, J. and Swanson, B. G. (1999). Polyphenoloxidase activity and color changes during storage of high hydrostatic pressure treated avocado puree. *Food Research International*, 31, 549-556.
- Lotha, R. E., Khurdiya, D. S. and Maheshwawi, M. L. (1994). Effect of storage on the quality of Kinnow mandarin fruit for processing. *Indian Food Packer*, 25-32.
- Ludikhuyze, L., Rodrigo, L. and Hendrickx, M. (2000a). The activity of myrosinase from broccoli (*Brassica oleracea* L. cv. *Italica*): influence of intrinsic and extrinsic factors. *Journal of Food Protection*, 63(3), 400-403.
- Ludikhuyze, L., Van Loey, A., Smout, C., Oey, I. and Hendrickx, M. (2003). Effects of combined pressure and temperature on enzymes related to quality of fruits and vegetables: from kinetic information to process engineering aspects. *CRC Critical Reviews in Food Science and Nutrition*, 43(5), 527-586.
- Ludikhuyze, L., Rodrigo, L. and Hendrickx, M. (2000b). The activity of myrosinase from broccoli (*Brassica oleracea* L. cv. *Italica*): influence of intrinsic and extrinsic factors. *Journal of Food Protection*, 63(3), 400-403.
- Ludikhuyze, L., Van Loey, A., Smout, C., Oey, I. and Hendrickx, M. (2003). Effects of combined pressure and temperature on enzymes related to quality of fruits and vegetables: from kinetic information to process engineering aspects. *CRC Critical Reviews in Food Science and Nutrition*, 43 (5), 527-586.
- Luh, B. S. and Daouf, H. N. (1971). Effect of break temperature and holding time on pectin and pectin enzymes in tomato pulp. *Journal of Food Science*, 36, 1030-1043.

- Lund, D. B. (1975). Effects of blanching, pasteurisation, and sterilization on nutrients. in Harris, R. S. and Karmas, E. *Nutritional evaluation of food processing*. New York: AVI Publishing, 205-240.
- Ly Nguyen, B., Van Loey, A., Fachin, D., Verlent, I., Duvetter, T., Vu, T. S., Smout, C. and Hendrickx, M. E. (2002). Strawberry pectin methylesterase: purification, characterisation, thermal and high-pressure inactivation. *Biotechnology Progress*, 18, 1447-1450.
- Ly Nguyen, B., Van Loey, A. M., Smout, C., Eren Ozcan, S., Fachin, D., Verlent, I., Truong, S.V., Duvetter, T. and Hendrickx, M. E. (2003a). Mild-heat and high-pressure inactivation of carrot pectin methylesterase: a kinetic study. *Journal of Food Science*, 68, 1377-1383.
- Ly Nguyen, B., Van Loey, A., Smout, C., Verlent, I., Duvetter, T., and Hendrickx, M. E. (2003b). Effect of mild-heat and high-pressure processing on banana pectin methylesterase: a kinetic study. *Journal of Agricultural and Food Chemistry*, 51, 7974-7979.
- Maarse, H. and Visscher, C. A. (Eds). (1992). *Volatile compounds in food. Qualitative and Quantitative data*, supplement 3, TNO Biotechnology and Chemistry Institute, Zeist, Natherlands.
- MacDougall, D. B. (2002). Colour measurement of food: principles and practice. in MacDougall, D.B. (Ed.), *Colour in food, improving quality*. Cambridge, UK Woodhead Publishing Limited, 33-63.
- Mackey, B. M., Forestiere, K. and Isaacs, N. S. (1995). Factors affecting the resistance of *Listeria monocytogene* to high hydrostatic pressure. *Food Biotechnology*, 9, 1-11.
- Madhavi, P. L., Deshpande, S. S. and Salunkhe, D. K. (Eds.). *Food antioxidant: Technological, toxicological and health perspectives*. New York, Marcel Dekker Inc., 1-4.
- Magerramov, M. A., Abdulagatov, A. I., Azizov, N. D. and Abdulagatov, I. M. (2007). Effect of temperature, concentration, and pressure on the viscosity of pomegranate and pear juice concentrates. *Journal of Food Engineering*, 80, 476-489.
- Mahanom, H., Azizah, A. H. and Dzulkify, M. H. (1999). Effect of different drying methods on concentrations of several phytochemicals in herbal preparation of 8 medicinal plant leaves. *Mal Journal of Nutrition*, 5, 47-54.

- Mahahpant, P. and Chaicharonthawekit, S. (1987). *Determination of active constituents in Centella asiatica*. B.Sc. Special project. Faculty of Pharmacy, Mahidol University, 3.
- Majchrzak, D., Mitter, S. and Elmadfa, I. (2004). The effect of ascorbic acid on total antioxidant activity of black and green tea. *Food Chemistry*, 88(3), 447-451.
- Makris, D. P. and Rossiter, J. T. (2001). Domestic processing on onion bulbs (*Allium cepa*) and asparagus spears (*Asparagus officinalis*): Effect on flavonol content and antioxidant status. *Journal of Agricultural and Food Chemistry*, 49, 3216-3222.
- Mallet, J. F., Cerrati, C., Ucciani, E., Gamisans, J. and Gruber, M. (1994). Antioxidant activity of plant leaves in relation to their alpha-tocopherol content. *Food Chemistry*, 49, 61-65.
- Manso, M. C., Oliveira, F. A. R., Oliveira, J. C. and Frias, J. M. (2001). Modeling ascorbic acid thermal degradation and browning in orange juice under aerobic conditions. *International Journal of Food Science and Technology*, 36(3), 303-312.
- Manuel, V. and Eduardo, R. (1976). *Current Therapeutic Research Clinical Experiment*, 19, 121.
- Manzocco, L., Mastrocola, D. and Nicoli, M. C. (1999). Chain-breaking and oxygen scavenging properties of wine as affected by some technological procedures. *Food Research International*, 31(9), 673-678.
- Manzocco, L., Calligaris, S., Mastrocola, D., Nicoli, M.C. and Lericci, C. R. (2000). Review of non-enzymatic and antioxidant capacity in processed foods. *Trends in Food Science and Technology*, 11(9-10), 340-346.
- Mao, L. C., Xu, Y. Q. and Que, F. (2007). Maintaining the quality of sugarcane juice with blanching and ascorbic acid. *Food Chemistry*, 104, 740-745.
- Maquart, F. X., Bellon, G., Gillery, P., Wegrowski, Y. and Borel, J. P. (1990). Stimulation of collagen synthesis in fibroblast cultures by a triterpene extracted from *Centella asiatica*. *Connective Tissue Research*, 24, 107-120.
- Marchese, D. (1995) Citrus consumers trend in Europe. New tastes sensation: The blood orange juice case. in *Citrus processing short course proceedings*, University of Florida, Gainesville, FL., 19-39.

- Martin, F. R., Martinez, M., Urbie Salgo, T., Castillo, S. and Frutos, M. J. (2002). Changes in nutraceutical composition of lemon juices according to different industrial extraction systems. *Food Chemistry*, 28, 319-324.
- Matser, A. M., Krebbers, B., Van den Berg, R. W. and Bartels, P. V. (2004). Advantages of high pressure sterilization on quality of food products. *Trends in Food Science and Technology*, 15, 79-85.
- Matile, P., Hortensteiner, S. and Thomas, H. (1999). Chlorophyll degradation. *Annual Review of Plant Physiology and Plant Molecular Biology*, 50, 67-95.
- Martinez-Valverde, I., Periago, M. J., Provan, G. and Chesson, A. (2002). Phenolic compounds, lycopene and antioxidant activity in commercial varieties of tomato (*Lycopersicon esculentum*). *Journal of the Science of Food and Agriculture*, 82, 323-330.
- Matser, A. M., Krebbers, B., van den Berg, R. W. and Bartels, P. V. (2004). Advantages of high pressure sterilisation on quality of food products. *Trends in Food Science and Technology*, 15(2), 79-85.
- Mehrlich, F. P. and Felton, G. E. (1971). Pineapple juices. in Tressler, D. K. and Joslyn, M. A. *Fruit and vegetable juice processing technology*. 2nd ed. Westport, Connecticut, The AVI publishing Co. Inc, 185.
- Meiners, C. R., Derise, N. L., Lai, H. C., Crews, S. J., Ritchey, S. J. and Murphy, E. W. (1976). The content of nine mineral element in raw and cooked mature dry legumes. *Journal of Agricultural and Food Chemistry*, 24, 1126-1130.
- Melendez-Martinez, A. J., Britton, G., Vicario, I.M. and Heredia, F. J. (2005). Color and carotenoid profile of Spanish Valencia late ultrafrozen orange juices. *Food Research International*, 38, 931-936.
- Michel, M. and Autio, K. (2001). Effects of high pressure on protein-and polysaccharide-based structures. in Hendrickx, M. and Knorr, D. (Eds.), *Ultra high pressure treatments of foods*. New York, United States: Kluwer Academic/Plenum Publishers, 189-214.
- Miki, N. and Akatsu, K. (1970). Effect of heating sterilization on color of tomato juice. *Nippon Shokuhin Kogyo Gakkaishi*, 17(5), 175-181.

- Miki, N. and Akatsu, K. (1971). Stability of tomato juice of lycopene from inner and outer part of the flash. *Nippon Journal of Food Science and Technology*, 18, 309-312.
- Miller, N. J., Diplock, A. T. and Rice-Evans, C. A. (1995). Evaluation of the total antioxidant activity as a marker of the deterioration of apple juice on storage. *Journal of Agricultural and Food Chemistry*, 43, 1794-1801.
- Mohamad Faisal, A. F. (2000). Current scenario of Malaysian herbal/natural product industry. *Journal of Tropical Medicinal Plants*, 1, 36-42.
- Møller, J. K. S., Madsen, H. L., Aaltonen, T. and Skibsted, L. H. (1999). Dittany (*Origanum dictamnus*) as a source of water-extractable antioxidants. *Food Chemistry*, 64, 215-219.
- Morganti, P., fionda, A., Elia, U. and Tiberi, L. (1990). Extraction and analysis of cosmetic active ingredients from an anti-cellulitis transdermal delivery system by high-performance liquid chromatography. *Journal of Chromatographic Science*, 37(2), 51-55.
- Morisset, R., Ng, C., Panisset, J. C., Temmi, L., Camirand, P. and Brodeur, A. (1987). Evaluation of the healing activity of Hydrocothyle tincture in treatment of wounds. *Phytotherapy Research*, 1(3), 117-121.
- Moser, D. and Matile, P. (1997). Chlorophyll breakdown in ripening fruits of *Capsicum annum*. *Journal of Plant Physiology*, 150, 759-761.
- Moskaug, J. O., Carsen, H., Myhrstad, M. C. W. and Blomhoff, R. (2005). Polyphenols and glutathione synthesis regulation. *American Journal of Chincial Nutrition*. 81, 277-283.
- Mothershaw, A. S., and Jaffer, T. H. and Jaffer, T. 2001. Antimicrobial activity of foods with different physico-chemical characteristics. *International Journal of Food Properties*, 7, 629-638.
- Moyer, J. C. and Aitken, H. C. (1971). Apple juice. in Tressler, D. K. and Joslyn, M. A. *Fruit and vegetable juice processing technology*. 2nd ed. Westport, Connecticut, The AVI publishing Co. Inc, 186-233.

- Muhammed Idris, M. A., Noraini, H. and Ng, L. T. (1999). Medicinal plants: trade and investment prospects in Malaysia. in Ali, A. M., Shaari, K. and Zakaria, Z. (Eds.). *Phytochemicals and biopharmaceutins from the Malaysian rain forest*. Malaysia, FRIM, 21-30.
- Navarro, M., Verret, C., Pardon, P. and El Moueffak, A. 2002. Changes in volatile aromatic compounds of strawberry puree treated by high-pressure during storage. *High Pressure Research*, 22, 693-696.
- Netzel, M., Netzel, G., Tian, Q., Schwartz, S. and Konczak, I. (2007). Native Australian fruits-A novel source of antioxidants for food. *Innovative Food Science and Emerging Technologies*, 8, 339-346.
- Newall, C. A., Anderson, L. A. and Philipson, J. D. (1996). *Herbal medicine-A guide for health-care professionals*. London, The pharmaceutical Press, 296.
- Nguyen, M. T., Oey, I. and Hendrickx, M. E. 2003. Model studies on the stability of folic acid and 5-methyltetrahydrofolic acids degradation during thermal treatment in combination with high hydrostatic pressure. *Journal of Agriculture and Food Chemistry*, 51(11), 3352-3357.
- Nguyen, M. T., Oey, I., Hendrickx, M., and Van Loey, A. 2006. Kinetics for isobaric-isothermal degradation of (6R,S) 5-formyltetrahydrofolic acid in a model system. *European and Food Research and Technology*, 223(3), 325-332.
- Nicoli, M. C., Anese, M., Parpinel, M. T., Franceschi, S. and Lericci, C. R. 1997. Loss and/or formation of antioxidants during food processing and storage. *Cancer Letters*, 114, 71-74.
- Nicoli, M. C., Anese, M., and Parpinel, M. T. (1999). Influence of processing on the antioxidant properties of fruit and vegetables. *Trends in Food Science and Technology*, 10(3), 94-100.
- Nienaber, U. and Shellhammer, T. H. (2001). High-pressure processing of orange juice: combination treatments and a shelf life study. *Journal of Food Science*, 66(2), 332-336.
- Nijssen, L. M., Visscher, C. A., Maarse, H. and Willemsen, L. C. (1996). *Volatile compounds in food-qualitative and quantitative data*, 7th ed. TNO-CIVO Food Analysis Institute, Zeist, Natherlands.

- Nisperos-Carriedo, M. O. and Shaw, P. E. (1990). Comparison of volatile flavor components in fresh and processed orange juices. *Journal of Agricultural and Food Chemistry*, 38, 1048-1052.
- Niu, L-Y., Wu, J-H., Liao, X-J., Chen, F., Wang, Z.-F., Zhao, G-H. and Hu, X. (2008). Physicochemical characteristics of orange juice samples from seven cultivars. *Agricultural Sciences in China*, 7(1), 41-47.
- Noueira, P., Bittrich, V., Shepherd, G., Lopes, A. and Marsaioli, A. (2001). The ecological and taxonomic importance of flower volatiles of *Clusia* species (*Guttiferae*). *Phytochemistry*. 56, 443-452.
- Nunes, C. S., Castro, S. M., Saraiva, J. A., Coimbra, M. A., Hendrickx, M. E. and Van Loey, A. M. (2006). Thermal and high pressure stability of purified pectin methylesterase from plums (*Prunus domestica*). *Journal of Food Biochemistry*, 30, 138-154.
- Oey, I., Van Loey, A. M., Fachin, D., Ly Nguyen, B., Verlent, I. and Hendrickx, M. (2002). Overview: effect of high pressure on enzymes related to food quality kinetics as a basis for process engineering. *High Pressure Research*, 22, 613-618.
- Oey, I., Arroqui, C., Messagie, I., Nguyen, M. T., Van Loey, A. and Hendrickx, M. (2004a). Comparative study on pressure and temperature stability of 5-methyltetrahydrofolic acid in model systems and in food products. *Journal of Agriculture and Food Chemistry*, 52, 485-492.
- Oey, I., Van Loey, A. and Hendrickx, M. (2004b). Pressure and temperature stability of water-soluble antioxidants in orange and carrot juice: a kinetic study. *European of Food Research and Technology*, 219, 161-166.
- Oey, I., Van Loey, A. and Hendrickx, M. (2005). Pressure and temperature stability of 5-methyltetrahydrofolic acid: a kinetic study. *Journal of Agriculture and Food Chemistry*, 53 (8), 3081-3087.
- Oey, I., Verlinde, P., Hendrickx, M. and Van Loey, A. (2006). Temperature and pressure stability of L-ascorbic acid and/or [6s] 5-methyltetrahydrofolic acid: a kinetic study. *European and Food Research and Technology*, 223, 71-77.

- Oey, I., Van der Plancken, I., Van Loey, A. and Hendrickx, M. (2007). Does high pressure processing influence nutritional aspects of plant based food systems? *Trends in Food Science and Technology*. [Online]. Available <http://dx.doi.org/10.1016/j.tifs.2007.09.002>.
- Oey, I., Lille, M., Van Loey, A. and Hendrickx, M. (2008). Effect of high pressure processing on colour, texture and flavour of fruit and vegetable-based food products: a review. *Trends in Food Science and Technology*, 19, 320-328.
- Ogawa, H., Fukuhisa, K. and Fukumoto, H. (1992). Effect of hydrostatic pressure on sterilization and preservation of citrus juice. in Balny, C., Hayashi, R., Heremans, K. and Masson, P. (Eds.), *High Pressure and Biotechnology*. Colloque Inserm/ John Libbey Eurotext, 269-278.
- Oyediji, O. A. and Afolayan, A. J. (2005). Chemical composition and antibacterial activity of the essential oil of *Centella asiatica* growing in South Africa. *Pharmaceutical Biology*, 43(3), 249-252.
- Padula, M. and Rodriguez-Amaya, D. B. (1987). Changes in individual carotenoids and vitamin C on processing and storage of guava juice (*Magnifera indica*) slices and puree. *International Journal of Food Science and Technology*, 22, 451-460.
- Pallavi, R. and Mishra, S. H. (2006). PHCOG MAG.: Research Article Development of a simple and sensitive spectrophotometric method for the simultaneous determination of asiaticoside and wedelolactone in a polyherbal formulation. *Pharmacognosy Magazine*, 47-51.
- Palou, E., Lopez-Malo, A., Barbosa-Canovas, G. V., Welti-Chanes, J. and Swanson, B. G. (1999). Polyphenoloxidase activity and color of blanched and high hydrostatic pressure treated banana puree. *Journal of Food Science*, 64, 42-45.
- Palou, E., Hernandez-Salgado, C., Lopez-Malo, A., Barbosa-Canovas, G. V., Swanson, B. G. and Welti-Chanes, J. (2000). High pressure-processed guacamole. *Innovative Food Science and Emerging Technologies*, 1, 69-75.
- Paris, M. E. (1998). Coliforms, *Escheria coli* and *Salmonella serovars* associated with a citrus-processing facility impacted in salmonellosis outbreak. *Journal of Food Protection*, 61, 280-284.

- Parish, M. E. (1998a). Orange juice quality after treatment by thermal pasteurization or isostatic high pressure. *Lebensmittel-Wissenschaft und-Technologie*, 31, 439-442.
- Parish, M. E. (1998b). High pressure inactivation of *Saccharomyces cerevisiae*, endogenous microflora and pectinmethylesterase in orange juice. *Journal of Food Safety*, 18(1), 57-65.
- Park, B. C., Paek, S-H., Lee, Y-S., Kim, S-J., Lee, E-S., Choi, H. G., Yong, C. S. and Kim, J-A. (2006). Inhibitory effects of asiatic acid on 7,12-dimethylbenz[a]anthracene and 12-O-tetradecanoylphorbol 13-ace-induced tumor promotion in mice. *Biological and Pharmaceutical Bulletin*, 30, 1, 176-179.
- Park, B. C., Paek, S. H., Lee, Y. S., Kim, S. J., Lee, E. S., Choi, H. G., Yong, C. S. and Kim, J-A. (2007). Inhibitory effects of asiatic acid on 7,12-dimethylbenz[a]anthracene and 12-Otetradecanoylphorbol 13-acetate-induced tumor promotion in mice, *Biological and Pharmaceutical Bulletin*, 30, 176-179.
- Parton, T., Elvassore, N., Bertucco, A. and Bertoloni, G. (2006). High pressure CO₂ inactivation of food: A multi-batch reactor system for inactivation kinetic determination. *Supercritical Fluids*, 40(3), 490-496.
- Patterson, M. F., Quinn, M., Simpson, R. and Gilmour, A. (1996). High pressure inactivation in foods of animal origin. *High pressure bioscience and biotechnology*. Amsterdam: Elsevier, 13, 267-272.
- Pederson, C. S. (1980). Vegetable juice. in Nelson, P. E. and Tressler, D. K. (Eds.). *Fruit and vegetable juice processing technology*. 3rd ed. Westport, Connecticut, The AVI publishing Co. Inc., 185.
- Pehrsson, P. E. (1996). Application of high pressure pasteurization to citrus processing. *Institute of food technologists annals Meeting*, Book of abstracts, 108.
- Pfannhauser, W., Rauscher, H. and Thaller, A. (1987). Investigations on the change of orange lemonades during storage. *Deutsche Lebensmittel-Rundschau*, 83, 307-314.
- Phadungkit, M. (1999). *Effect of Centella asiatica (Linn.) Urban on inhibition of growth of two species of pathogenic skin bacteria*. Master's thesis in Education Biology, Faculty of Education, Mahasarakham University, Thailand.

- Phongphisutthinant, R. (2006). *Effect of thermal and high pressure techniques on the quality and shelf-life of processed guava juice*. Master's thesis in Food Science and Technology, Faculty of Agro-Industry, Chiang Mai University, Thailand.
- Phunchaisri, C. and Apichartsrangkoon, A. (2005). Effects of ultra-high pressure on biochemical and physical modification of lychee (*Litchi chinensis* Sonn.). *Food Chemistry*, 93, 57-64.
- Piskula, M. K. and Terao, J. (1998). Quercetin's Solubility Affects Its Accumulation in Rat Plasma after Oral Administration, *Journal of Agricultural and Food Chemistry*, 46(10), 4313-4317.
- Plaza, L., Munoz, M., de Ancos, B. and Pilar Cano, M. (2003). Effect of combined treatments of high-pressure, citric acid and sodium chloride on quality parameters of tomato puree. *European and Food Research and Technology*, 216, 514-519.
- Poei-Langston, M. S. and Wrolstad, R. E. (1981). Color degradation in an ascorbic acid anthocyanin-flavanol model system. *Journal of Food Science*, 46, 1218-1222, 1236.
- Polonoski, J. (1951). Chemical constitution of asiaticoside and specifically of asiatic acid. VI. *Relation of asiatic acid to the α -amyrine series*. *Comptus Rendu*, 233, 671-673.
- Pogorzelski, E. and Wilkowska, A. (2007). Flavour enhancement through the enzymatic hydrolysis of glycosidic aroma precursors in juices and wine beverages: a review. *Flavour and Fragrance Journal*, 22, 251-254.
- Pokorny, J. (2001). Natural antioxidant functionality during food processing. in Pokorny, J., Yanishiliera, N. and Gordon, M. (Eds.). *Antioxidant in Food: Practical Application*. Cambridge, England, Woodhead Publishing Ltd., 331-372.
- Polydera, A. C., Stoforos, N. G. and Taoukis, P. S. (2005). Quality degradation kinetics of pasteurized and high pressure processed fresh Navel orange juice: nutritional parameters and shelf life. *Innovative Food Science and Emerging Technologies*, 6, 1-9.
- Polydera, A. C., Stoforos, N. G. and Taoukis, P. S. (2003). Comparative shelf life study and vitamin C loss kinetics in pasteurised and high pressure processed reconstituted orange juice. *Journal of Food Engineering*, 60, 21-29.
- Porretta, S., Birzi, A., Ghizzoni, C. and Vicini, E. (1995). Effects of ultrahigh hydrostatic pressure treatments on the quality of tomato juice. *Food Chemistry*, 52, 35-41.

- Pramongkit, K. (1995). Active constituents of *Centella asiatica* in Thailand. Master's thesis in Pharmaceutical Chemistry, Faculty of Pharmacy, Mahidol University, Thailand.
- Prestamo, G. and Arroyo, G. (1998). High hydrostatic pressure effects on vegetable structure. *Journal of Food Science*, 63(5), 878-881.
- Priestap, H. A., van Baren, C. M., Lira, P. D. L., Coussio, J. D. and Bandoni, A. L. (2003). Volatiles constituents of *Aristolochia argentina*. *Phytochemistry*, 63, 221-225.
- Prum, N., Illel, B. and Raynaud, J. (1983). Flavonoid glycosides from *Centella asiatica* L. (Umbelliferae). *Pharmazie*, 38, 423.
- Qi, S., Xie, J. and Li, T. (2000). Effect of asiaticoside on hypertrophic scars in a nude mice model. *Chinese Journal of Burns*, 16 (1), 53-56.
- Qiao, Y., Xie, B. J., Zhang, Y., Zhang, Y., Fan, G., Yao, X. L. and Pan, S.Y. (2008). Characterization of aroma active compounds in fruit juice and peel oil of Jincheng sweet orange fruit (*Citrus sinensis* (L.) Osbeck) by GC-MS and GC-O. *Molecules*, 13, 1333-1344.
- Qiu, W., Jiang, H., Wang, H. and Gao, Y. (2006). Effect of high hydrostatic pressure on lycopene stability. *Food Chemistry*, 97, 516-523.
- Quorn®. Compound matched with library spectra from Quorn sample. University of Reading.
- Rafamantanana, M. H., Rozet, E., Raelison, G. E., Cheuk, K., Ratsimamanga, S. U., Hubert, P. and Quetin-Leclercq, J. (2009). An improved HPLC-UV method for the simultaneous quantification of triterpenic glycosides and aglycones in leaves of *Centella asiatica* (L.) Urb (APIACEAE). *Journal of Chromatography B*, 877, 2396-2402.
- Rahandrama, T. Chanez, M. and Boiteau, P. (1963). Determination with anthrone of asiaticoside, an ester glycoside from *Centella asiatica* (Umbelliferae). *Annals of Pharmaceutical in France*, 21(4), 313-320.
- Rajalakshmi, D. and Narasimhan, S. (1996). Food antioxidants: Sources and methods of equation. in Madhavi, D. L., Deshpande, S. S. and Salunkhe, D. K. (Eds.). *Food Antioxidants: Technological, Toxicological, and Health Perspectives*. New York, Marcel Dekker, Inc, 65-157.

- Ramasawamy, A. S., Periyasamy, S. M. and Basu, N. (1970). Pharmacological studies on *Centella asiatica* Linn. (*Brahma Manduki*) (N.O. Umbelliferae). *Indian Journal of Medical Research*, 4(2), 160-175.
- Randolph, T. W., Seefeldt, M. and Carpenter, J. F. (2002). High hydrostatic pressure as a tool to study protein aggregation and amyloidosis. *Biochimica Biophysica Acta Protein Structure and Molecular Enzymology*, 1595(1-2), 224-234.
- Randriamampionona, D., Diallo, B., Rakotonirina, F., Rabemanantsoa, C., Cheuk, K., Corbisier, A.M., Mahillon, J., Ratsimamanga, S. and Jaziri, M. El. (2007). *Fitoterapia*, 78, 7. in Rafamantanana, M. H., Rozet, E., Raelison, G. E., Cheuk, K., Ratsimamanga, S. U. Hubert, P. and Quetin-Leclercq, J. (2009). An improved HPLC-UV method for the simultaneous quantification of triterpenic glycosides and aglycones in leaves of *Centella asiatica* (L.) Urb (APIACEAE). *Journal of Chromatography B*, 877, 2396-2402.
- Rao, P. S. and Seshadri, T. R. (1969). Variation in the chemical composition of Indian samples of *Centella asiatica*. *Current Science*, 38(4), 77.
- Rastogi, N. K., Raghavarao, K. S. M. S., Balasubramaniam, V. M., Niranjana, K. and Knorr, D. (2007). Opportunities and challenges in high pressure processing of foods. *Critical Reviews in Food Science and Nutrition*, 47, 69-112.
- Rastogi, R. P., Sarkar, B. and Dhar, M. L. (1960). Chemical examination of *Centella asiatica* Linn: Part 1. Isolation of the chemical constituents. *Journal of Science and Industrial Research-B*, 19(7), 252-257.
- Rein, J. M. and Heinonen, M. (2004). Stability and enhancement of berry juice color. *Journal of Agricultural and Food Chemistry*, 52, 3106-3114.
- Resnik, S. and Chirife, J. (1979). Effect of moisture content and temperature on some aspects of non-enzymatic browning in dehydrated apple. *Journal of Food Science*, 44, 601-605.
- Reyes, P. and Luh, B. S. (1960). Characteristics of browning enzymes in Fay Elberta freestone peaches. *Food Technology*, 14, 570-575.
- Rice-Evans, C. A. (2001). Flavonoids antioxidants. *Current Medicinal Chemistry*, 8, 797-807.

- Rice-Evans, C. A., Miller, N. J. and Paganga, G. (1996). Structure-antioxidant activity relationship of flavonoids and phenolic acids. *Free Radical Biology and Medicine*, 20, 933-956.
- Robards, K. (2003). Strategies for the determination of bioactive of bioactive phenols in plants, fruit and vegetables. *Journal of Chromatography*, 1000(1-2), 657-91.
- Rodoni, S., Muhlecker, W., Anderl, M., Krautler, B., Moser, D., Thomas, H., Matile, P. and Hortensteiner, S. (1997). Chlorophyll breakdown in senescent chloroplasts: cleavage of pheophorbide *a* in two enzymic steps. *Plant Physiology*, 115(2), 669-676.
- Rodriguez-Comesana, M., Garcia-Falcon, M. S. and Simal-Gandara, J. (2002). Control of nutritional labels in beverages with added vitamins: screening of β -carotene and ascorbic acid contents. *Food Chemistry*, 79, 141-144.
- Rodrigo, D., Van Loey, A. and Hendrickx, M. (2007a). Combined thermal and high pressure colour degradation of tomato puree and strawberry juice. *Journal of Food Engineering*, 79, 553-560.
- Rodrigo, D., Jolie, R., Van Loey, A. and Hendrickx, M. (2007b). Thermal and high pressure stability of tomato lipoxygenase and hydroperoxide lyase. *Journal of Food Engineering*, 79, 423-429.
- Roig, M. G., Bello, J. F., Rivera, Z. S. and Kennedy, J. F. (1999). Studies on the occurrence of non-enzymatic browning during storage of citrus juice. *Food Research International*, 32(9), 609-619.
- Ros-Chumillas, M., Belissario, Y., Iguaz, A. and Lopez, A. (2007). Quality and shelf life of orange juice aseptically packaged in PET bottles. *Journal of Food Engineering*, 79, 234-242.
- Rosen, H., Blumenthal, A. and McCallum, J. (1967). Effect of asiaticoside on wound healing in the rats. *Proceedings of the Society for Experimental Biology and Medicine*, 125(1), 279-280.
- Rouse, A.H., Albrigo, L.G., Huggart, R.L. and Moore, E.L. (1974). Viscometric measurements and pectic content of frozen concentrated orange juices for citrus future. *Proceedings of the Florida State Horticultural Society*, 293-296.

- Rovere, P. (2001). Industrial-Scale high pressure processing of foods. in Hendrickx, M. E. G. and Knorr, D. (Eds.) *Ultra high pressure treatments of foods*, New York, Boston, Dordrecht, London, Moscow: Kluwer Academic/Plenum Publishers, 251-268.
- Rovere, P., Carpi, G., Gola, S., Dall'Aglio, G. and Maggi, A. (1996). HPP strawberry products: an example of processing line. in Hayashi, R. and Balny, C. (Eds.), *High pressure bioscience and biotechnology*. Amsterdam: Elsevier, 12, 445-450.
- Rovere, P., Sandei, L., Colombi, A., Munari, M., Ghiretti, G. and Carpi, G. (1997). Effects of high-pressure treatment on chopped tomatoes. *Industria Conserve*, 72, 3-12.
- Rui, D., Xiaoyan, C., Taixiang, W. and Guanjian, L. (2007). Elemene for the treatment of lung cancer. *Cochrane Database of Systematic Reviews*, Issue 4. Art. No. CD006054. DOI: 10.1002/14651858.CD006054.pub2.
- Rush, W. R., Murray, G. R. and Graham, D. J. M. (1993). The comparative steady-state bioavailability of the active ingredients of madecassol. *European journal of drug metabolism and pharmacokinetics*, 18, 323.
- Sacchetti, G., Maietti, S., Muzzoli, M., Scaglianti, M. Manfredini, S., Radice, M. and Bruni, R. (2005). Comparative evaluation of 11 essential oils of different origin as functional antioxidants, antiradicals and antimicrobials in foods. *Food Chemistry*, 91, 621-632.
- Sadler, G., Parish, M., Van Clief, D. and Davis, J. (1997). The effect of volatile absorption by packaging polymers on flavor, microorganisms and ascorbic acid in reconstituted orange juice. *Lebensmittel Wissenschaft und Technologie*, 30, 686-690.
- Sakina, M.R. and Dandiya, P. C. (1990). A phycho-neuropharmacological profile of *Centella asiatica* extract. *Fitoterapia*, 4, 291-296.
- Sale, A. J. H., Gould, G. W. and Hamilton, W. A. (1970). Inactivation of bacterial spores by hydrostatic pressure. *Journal of General Microbiology*, 60, 323-334.
- Sanchez-Moreno, C., Plaza, L., de Ancos, B. and Cano, M. P. (2006). Impact of high-pressure and traditional thermal processing of tomato puree on carotenoids, vitamin C and antioxidant activity. *Journal of the Science of Food and Agriculture*, 86(2), 171-179.

- Sanchez-Moreno, C., Plaza, L., de Ancos, B., and Cano, M. P. (2003). Vitamin C, provitamin A carotenoids, and other carotenoids in highpressurized orange juice during refrigerated storage. *Journal of Agricultural and Food Chemistry*, 51(3), 647-653.
- Sancho, F., Lambert, Y., Demazeau, G., Largeteau, A., Bouvier, J-M. and Narbonne, J-F. (1999). Effect of ultra-high hydrostatic pressure on hydrosoluble vitamins. *Journal of Food Engineering*, 39, 247-253.
- San Martin, M. F., Barbosa-Canovas, G. V. and Swanson, B. G. (2002). Food processing by hydrostatic pressure. *Critical Reviews in Food Science and Nutrition*, 42(6), 627-645.
- Sappakun, N. and Ungwitayatorn, J. (1982). Thai crude drugs: Their preparation and specifications. *Journal of Pharmaceutical Sciences*, 9(3), 53-58.
- Scalbert, A., Johnson, I. T. and Saltmarsh, M. (2005). Polyphenols: antioxidants and beyond. *American Journal of Chincinal Nutrition*, 81, 215-217.
- Scalzo, R. T., Iannocari, T., Summa, C., Morelli, R. and Rapisarda, P. (2004). Effect of thermal treatment on antioxidant and antiradical activity of blood orange juice. *Food Chemistry*, 85, 41-47.
- Schaneberg, B. T., Mikell, J. R., Bedir, E. and Khan, I. A. (2003). An improved HPLC method for quantitative determination of six terpenes in *Centella asiatica* extracts and commercial products. *Pharmazie*, 58(6), 381-384.
- Schieberle, P., Ofner, S. and Grosch, W. (1990). Evaluation of potent odorants in cucumbers (*Cucumis sativus*) and muskmelons (*Cucumis melo*) by aroma extract dilution analysis. *Journal of Food Science*, 55, 193-195.
- Schulte, K. E., Ruecker, G. and Abdul Bary, E. (1973). Constituents of medical plants. XXVII. Polyacetylenes from *Hydrocotyle asiatica*. *Architecture Pharmacy*, 197-209.
- Seo, W. H. and Beak, H. H. (2005). Identification of characteristic aroma-active compound from water dropwort (*Oenanthe javanica* DC.). *Journal of Agricultural and Food Chemistry*, 53, 6766-6770.
- Seyderhelm, I., Boguslawski, S., Michaelis, G. and Knorr, D. (1996). Pressure induced inactivation of selected food enzymes. *Journal of Food Science*, 61(2), 308-310.

- Shafiqul Islam, A. K. M., Ismail, Z., Saad, B., Othman, A.R., Ahmadd, M. N. and Shakaff, A. Y. Md. (2006). Correlation studies between electronic nose response and headspace volatiles of *Eurycoma longifolia* extracts. *Sensors and Actuators B*, 120, 245-251.
- Shaw, P. E. and Moshonas, M. G. (1991). Ascorbic acid retention in orange juice stored under simulated consumer home conditions. *Journal of Food Science*, 56, 867-868.
- Sheela, K., Nath, G. K., Vijayalakshmi, D., Yankanchi, G. M. and Patil, T. B. (2004). Proximate composition of underutilized green leafy vegetables in Southern Karnataka. *Human Ecology*, 153, 227-229.
- Shi, J. and Le Maguer, M. (2000). Lycopene in tomatoes: chemical and physical properties affected by food processing. *Critical Reviews in Food Science and Nutrition*, 40(1), 1-42.
- Shin, S. and Bhowmik, S. R. (1995). Thermal kinetics of colour changes in pea puree. *Journal of Food Engineering*, 24, 77-86.
- Shook, C. M., Shellhammer, T. H. and Schwartz, S. J. (2001). Polygalacturonase, pectinesterase, and lipoxygenase activities in high-pressure-processed diced tomatoes. *Journal of Agricultural and Food Chemistry*, 49, 664-668.
- Shouqin, Z., Zhu, J. and Wang, C. (2004). Novel high pressure extraction technology. *International Journal of Pharmaceutics*, 278, 471-474.
- Shukla, A., Basik, A.M. and Dhawan, B.N. (1999). Asiaticoside-induced elevation of antioxidant levels in healing wounds. *Phytotherapy Research*, 3(1), 50-54.
- Sila, D. N., Duvetter, T., De Roeck, A., Verlent, I., Smout, C., Moates, G. K., Hills, B. P., Waldron, K. K., Hendrickx, M. and Van Loey, A., (2007). Texture changes of processed plant based foods: potential role of novel technologies. *Trends in Food Science and Technology*, 19(6), 309-319.
- Sila, D. N., Smout, C., Elliot, F., Van Loey, A. and Hendrickx, M. (2006). Non-enzymatic depolymerization of carrot pectin: toward a better understanding of carrot texture during thermal processing. *Journal of Food Science*, 71(1), 1-7.
- Sila, D. N., Smout, C., Vu, T. S. and Hendrickx, M. E. (2004). Effects of high-pressure pretreatment and calcium soaking on the texture degradation kinetics of carrots during thermal processing. *Journal of Food Science*, 69, 205-211.

- Sieso, V. and Crouzet, J. (1977). Tomato volatile components: effect of processing. *Food Chemistry*, 2, 241-252.
- Si-Qi, L. and Huei-fang, C. (1981). Isolation and identification of madecassoside in *Centella asiatica*. *Zhong caoyao*, 12(6) 5-6.
- Sing, B. and Rastogi, R. P. (1969). Reinvestigation of the triterpenes of *Centella asiatica*. *Phytochemistry*, 8, 917-921.
- Skaltsa, H. D., Demetzos, C., Lazari, D. and Sokoric, M. (2003). Essential oil analysis and antimicrobial activity of eight *Stachys* species from Greece. *Phytochemistry*, 64, 743-752.
- Skrede, G. and Wrolstad, R. E. (2002). Flavonoids from berries and grapes. in Shi, J., Mazza, G. and Marc Le, M. (Eds.). *Functional Foods: Biochemical and Processing Aspects*. 2nd ed. Boca Raton, Florida, CRC Press, 71-134.
- Smelt, J. P. P. M. (1998). Recent advances in microbiology of high pressure processing. *Trends in Food Science Technology*, 9, 152-158.
- Smelt, J. P. P. M., Rijke, A. G. F. and Hayhurst, A. (1994). Possible mechanism of high pressure inactivation of microorganisms. *High Pressure Research*, 12,199-203.
- Somsub, W., Kongkachuichai, R., Sungpuag, P. and Charoensiri, R. (2008). Effects of three conventional cooking methods on vitamin C, tannin, myo-inositol phosphates contents in selected Thai vegetables. *Journal of Food Composition and Analysis*, 21, 187-197.
- Spanos, G. A., Wrolstad, R. E. and Heatherbell, D. A. (1990). Influence of processing and storage on the phenolic composition of apple juice. *Journal of Agricultural and Food Chemistry*, 38, 1572-1579.
- Squires, S. R. and Hanna, J. C. (1979). Concentration and stability of ascorbic acid in marketed reconstituted orange juice. *Journal of Agricultural and Food Chemistry*, 27, 639-641.
- Sribusarakum, A. (1997). *Chromatographic determination of active constituents of Centella asiatica (Linn.) Urban in Thailand*. Master's thesis in Pharmacy, Faculty of Graduate studies, Mahidol University, Thailand.

- Srimuang, K. (2003). *Effect of Indian mulberry (Morinda citrifolia L.) juice on growth of wine yeast variety Saccharomyces cerevisiae*. Master's thesis in Food Science and Technology, Faculty of Agro-Industry, Chiang Mai University, Thailand.
- Stone, E. J., Hall, R. M. and Kazeniak, S. J. (1975). Formation of aldehydes and alcohols in tomato fruit from U-¹⁴ C-labeled linolenic and linoleic acids. *Journal of Food Science*, 40(6), 1138-1141.
- Su, S. K. and Wiley, R. C. (1998). Changes in apple juice flavor compounds during processing. *Journal of Food Science*, 63, 688-691.
- Sumitani, H., Suekane, S., Nakatani, A. and Tatsuka, K. (1994). Changes in composition of volatile compounds in high pressure treated peach. *Journal of Agricultural and Food Chemistry*, 42, 785-790.
- Suntornsuk, L., Gritsanapun, W., Nilkamhank, S. and Paochom, A. (2002). Quantitation of vitamin C content in herbal juice using direct titration. *Journal of Pharmaceutical and Biomedical Analysis*, 28, 849-855.
- Supawantanakul, S. (2003). *Effects of asiaticoside on low potassium medium induced cell death in cultured rat cerebella granule neurons*. M.Sc.thesis in Pharmacology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Thailand.
- Suriyaphan, O., Drake, M. A. and Cadwallader, K. R. (1999). Identification of volatile off-flavors in reduces-fat cheddar cheeses containing lecithin. *Lebensmittel-Wissenschaft und e Technologie*, 32, 250-254.
- Suthanthangjai, W., Kajda, P. and Zabetakis, I. (2005). The effect of high hydrostatic pressure on the anthocyanins of raspberry (*Rubus idaeus*). *Food Chemistry*, 90, 193-197.
- Takahashi, Y., Ohta, H., Yonei, H. and Ifuku, Y. (1993). Microbicidal effect of hydrostatic pressure on satsuma mandarin juice. *International Journal of Food Science and Technology*, 28, 95-102.
- Takamiya, K.-I., Tsuchiya, T. and Ohta, H. (2000). Degradation pathway(s) of chlorophyll: what has gene cloning revealed?. *trends in plant science: Reviews*, 5(10), 426-431.

- Takeoka, G. R., Dao, L., Flessa, S., Gillespie, D. M., Jewell, W. T., Huebner, B., Bertow, D. and Ebeler, S. E. (2001). Processing effects on lycopene content and antioxidant activity of tomatoes. *Journal of Agricultural and Food Chemistry*, 49, 3713-3717.
- Taki, Y., Awao, T., Toba, S. and Mitsuura, N. (1991). Sterilization of *Bacillus* sp. spores by hydrostatic pressure. in *High Pressure Science for Food*. Hayashi, R. (Ed.). Kyoto, San Ei Pub.Co., 217-224.
- Tamako, T., Itoh, N. and Hayashi, R. (1991). High pressure effect on Maillard reaction. *Agricultural and Biological Chemistry*, 55(8), 2071-2074.
- Tang, W. and Eisenbrand, G. (1992). Chinese drugs of plant origin. *Germany: Springer-Verlag*, 273-276.
- Tangwongchai, R., Ledward, D. A., and Ames, J. M. (2000). Effect of high-pressure treatment on the texture of cherry tomato. *Journal of Agriculture and Food Chemistry*, 48, 1434-1441.
- Tannenbaum, S. R., Young, V. R. and Archer, M. C. (1985). Vitamins and minerals. in Fennema, O. R. (Ed.). *Food Chemistry*. 2nd ed. New York. Marcel Dekker Inc., 477-544.
- Taoukis, P. S., Panagiotidis, P., Stoforos, N. G., Butz, P., Fister, H., and Tauscher, B. (1998). Kinetics of vitamin C degradation under high pressure-moderate temperature processing in model systems and fruit juices. in Isaacs, N. S (Ed.). *High pressure food science, bioscience and chemistry*. Reading: The Royal Society of Chemistry, 311-316.
- Tatum, J. M., Nagy, S. and Berry, R. E. (1975). Degradation products formed in canned single-strength orange juice during storage. *Journal of Food Science*, 40, 707-709.
- Tawfik, M. S. and Huyghebaert, A. (1998). Effect of storage temperature, time, dissolved oxygen and packaging materials on the quality of aseptically filled orange juice. *Acta Alimentaria*, 27 (3), 231-244.
- Tauscher, B. (1998). Effect of high pressure treatment to nutritive substances and natural pigments. VTT Symposium 186. *Fresh novel foods by high pressure*. Helsinki, Finland: Technical Research Centre of Finland.

- Tauscher, B. (1995). Pasteurization of food by hydrostatic high pressure: chemical aspects. *Zeitschrift Lebensmittel Untersuchung und Forschung*, 200, 3-13.
- Tee, E. S. (1988). *Carotenoids and retinols in human nutrition*. Institute of Medical Research Kuala Lumpur.
- Tee, E. S., Mohd Idris, N., Mohd Nasir, A. and Khatijah, I. (1997). Nutrient composition of Malaysian foods. 4th ed. Malaysian Food Composition Database Programme. Kuala Lumpur: *Medical Research Institute*, 16.
- Tewari, G., Jayas, D. S. B. and Holley, R. A. (1999). High pressure processing of foods: An Overview. *Science des Aliments*, 19, 619-661.
- Thai Food Regulation-Standard. (2003). *Pennywort juice*. Ministry of Industry. Thailand, 163/2546, 1-5.
- Thakur, B. R., Singh, R. K. and Nelson, P. E. (1996). Quality attributes of processed tomato products: a review. *Food Reviews International*, 12, 375-401.
- Thongsroy, P. (2003). *Clarification of guava juice by microfiltration*. Master's thesis in Food Science and Technology, Faculty of Agro-Industry, Chiang Mai University, Thailand.
- THP. (2007). *Bua bok*. Thai Herbal Pharmacopoeia supplement. Department of Medical Sciences, Ministry of Public Health. Thailand, vol. III, 9-17.
- Timson, W.J. and Short, A.J. (1965). Resistance of microorganisms to hydrostatic pressure. *Biotech and Bioengineering*, 7, 139-159.
- Torres, J. A. and Vela'squez, G. (2005). Commercial opportunities and research challenges in high pressure processing of foods. *Journal of Food Engineering*, 67, 95-112.
- Tsai, P., McIntosh, J., Pearce, P., Camden, B. and Jordon, B. R. (2002). Anthocyanin and antioxidant capacity in Roselle (*Hibiscus Sabdariffa*) extract. *Food Research International*, 35(4), 351-356.
- Tsuchiya, T., Ohta, H., Okawa, K., Iwamatsu, A., Shimada, H., Masuda, T. and Takamiya, K-I. (1999). Cloning of chlorophyllase, the key enzyme in chlorophyll degradation: finding of a lipase motif and the induction by methyl jasmonate. *Proceedings of the National Academy of Sciences, U.S.A*, 96, 15362-15367.

- Tsuda, T., Horio, F., Uchida, K., Aoki, H. and Osawa, T. (2003). Dietary cyanidin 3-*o*- β -D-glucoside-rich purple corn colour prevents obesity and ameliorates hyperglycemia in mice. *Journal of Nutrition*, 133, 2125-2130.
- Triska, J., Vrchotova, N., Houlka, M. and Strohalm, J. (2007). Comparison of total isothiocyanates content in vegetable juices during high pressure treatment, pasteurization and freezing. *High Pressure Research*, 27, 1, 147-149.
- Umekawa, T. (2000). Identification of the compounds which are the cause of light-induced metallic off-flavor in grapefruit drink and estimation of their precursors. *Soft Drink Technical Report*. Japan Soft Drink Association. Tokyo, Japan, 132, 257-262.
- Unnikrishnan, M.C. and Kuttan, R. (1990). Tumor reducing and anti-carcinogenic activity of selected spices. *Cancer Letters*, 51, 85-89.
- Vachon, J. F., Kheadr, E. E., Giasson, J., Paquin, P. and Fliss, I. (2002). Inactivations of foodborne in milk using dynamics high pressure. *Journal of Food Protection*, 65, 345-352.
- Vamos-Vigyazo, L. (1981). Polyphenol oxidase and peroxidase in fruits and vegetables. *Critical Reviews in Food Science and Nutrition*, 15, 49-127.
- Van Buggenhout, S., Messagie, I., Van Loey, A. and Hendrickx, M. (2005). Influence of low-temperature blanching combined with high-pressure shift freezing on the texture of frozen carrots. *Journal of Food Science*, 70(4), S304-S308.
- Van den Broeck, I., Ludikhuyze, L., Weemaes, C., Van Loey, A. and Hendrickx, M. (1998). Kinetics for isobaric–isothermal degradation of L-ascorbic acid. *Journal of Agricultural and Food Chemistry*, 46, 2001-2006.
- Van den Broeck, I., Ludikhuyze, L. R., Van Loey, A. M. and Hendrickx, M. E. (2000). Inactivation of orange pectinesterase by combined high-pressure and temperature treatments: a kinetic study. *Journal of Agricultural and Food Chemistry*, 48(5), 1960-1970.
- Van der Plancken, I., Van Loey, A. and Hendrickx, M. E. G. (2005). Changes in sulfhydryl content of egg white proteins due to heat and pressure treatment. *Journal of Agriculture and Food Chemistry*, 14, 5726-5733.

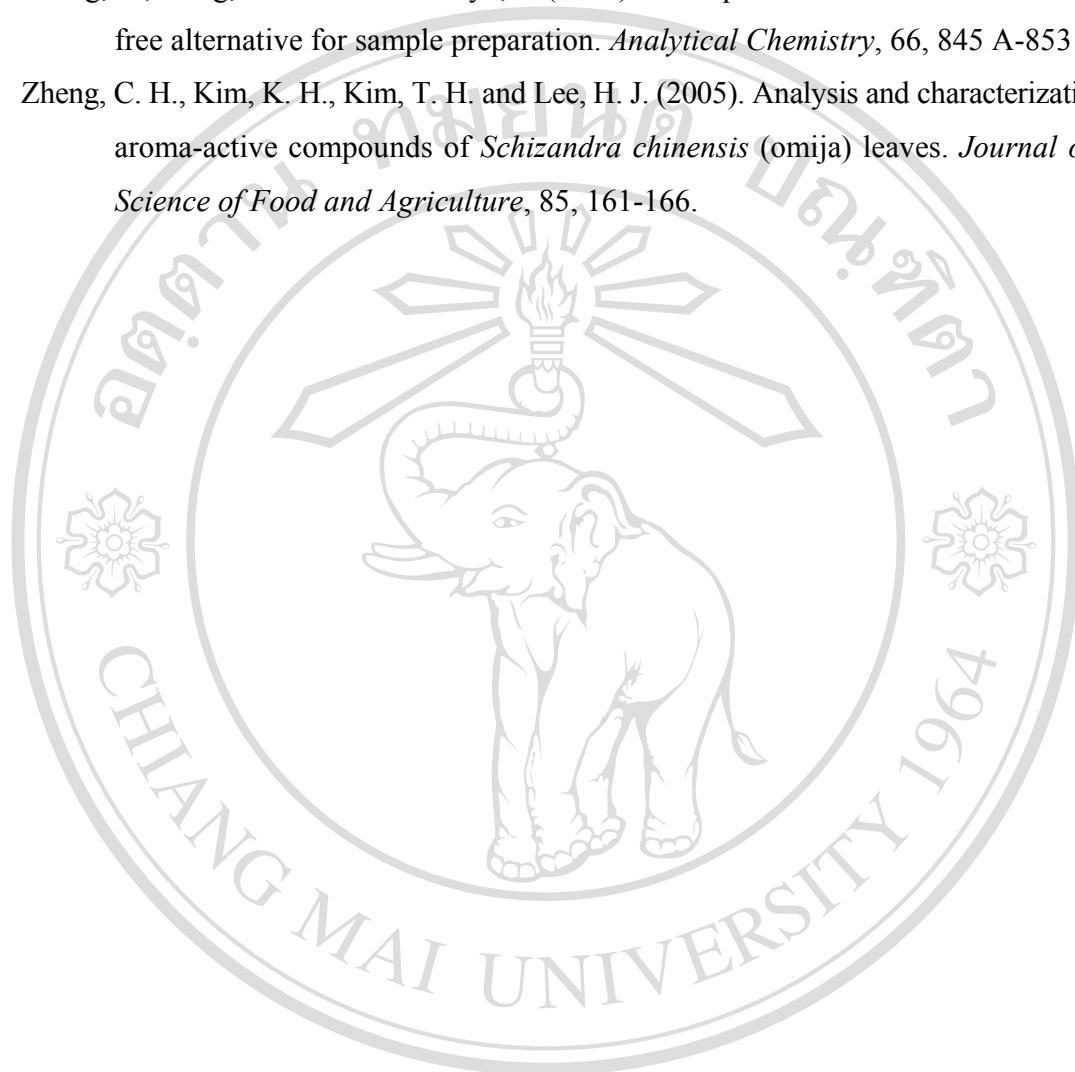
- Van Loey, A., Ooms, V., Weemaes, C., Van den Broeck, I., Ludikhuyze, L. and Oey, I. (1998). Thermal and pressure temperature degradation of chlorophyll in broccoli (*Brassica oleracea* L. italica) juice: a kinetic study. *Journal of Agriculture and Food Chemistry*, 46(12), 5289-5294.
- Veechai, A. D., Senmi, J., Gassan, G. and Mohinaro, M. (1984). Effect of *C. asiatica* on the biosynthetic activity of fibroblast in culture. *Farmacie Edition*, 39, 355-364.
- Velioglu, Y. S., Mazza, G., Gao, L. and Oomach, B. D. (1998). Antioxidant activity and total phenolics of selected fruits, vegetables and grain products. *Journal of Agricultural and Food Chemistry*, 46, 4113-4117.
- Verlent, I., Hendrickx, M., Rovere, P., Moldenaers, P. and Van Loey, A. (2006). Rheological properties of tomato-based products after thermal and high-pressure treatment. *Journal of Food Science*, 71(3), S243-S248.
- Verlent, I., Smout, C., Duvetter, T., Hendrickx, M. E. and Van Loey, A. (2005). Effect of temperature and pressure on the activity of purified tomato polygalacturonase in the presence of pectins with different patterns of methyl esterification. *Innovative Food Science and Emerging Technologies*, 6, 293-303.
- Verlent, I., Van Loey, A., Smout, C., Duvetter, T. and Hendrickx, M. E. (2004). Purified tomato polygalacturonase activity during thermal and high pressure treatment. *Biotechnology and Bioengineering*, 86(1), 63-71.
- Verma, R. K., Bharatariya, K. G., Gupta, M. M. and Kumar, S. (1999). Reverse-phase high performance liquid chromatography of asiaticoside in *Centella asiatica*. *Phytochemical Analysis*, 10, 191-193.
- Verlent, I., Hendrickx, M., Rovere, P., Moldenaers, P. and van Loey, A. (2006). Rheological properties of tomato-based products after thermal and high-pressure treatment. *Journal of Food Science*, 71(3), S243-S248.
- Vichi, S., Guadayol, J. M., Caixach, J., Lopez-Tamames, E. and Buxaderas, S. (2007a). Comparative study of different extraction techniques for the analysis of vergin olive oil aroma. *Food Chemistry*, 105, 1171-1178.

- Vichi, S., Riu-Aumatell, M., Mora-Pons, M., Guadayol, J. M., Buxaderas, S. and Lopez-Tamames, E. (2007b). HS-SPME coupled to GC/MS for quality control of *Juniperus communis* L. berries used for gin aromatization. *Food Chemistry*, 105, 1748-1754.
- Vimala, S., Adenan, M.I., Ahmad, A. R. and Shahdan, R. (2003). *Nature's choice to wellness: antioxidant vegetables/ulam*. Forest Research Institute Malaysia (FRIM), 90-92.
- Vogel, H. G., De Souza, N. J. and De Sa, A. (1990). Effect of terpenoids isolated from *Centella asiatica* on granuloma tissue. *Acta Therapeutica*, 16:4, 285-298.
- Vongsangnak, W., Gua, J., Chauvatcharin, S. and Zhongm J. J. (2003). Towards efficient extraction of notoginseng saponins from cultured cells of *Panax notoginseng*. *Biochemical Engineering Journal*, 18(2), 115-120.
- Wang, H., Cao, G. and Prior, R. L. (1996). Total antioxidant capacity of fruits. *Journal of Agricultural and Food Chemistry*, 44, 701-705.
- Wang, L., Kim, D. and Lee, C. Y. (2000). Effect of heat processing and storage on flavonoids and sensory qualities of green tea beverage. *Journal of Agricultural and Food Chemistry*, 48, 4227-4232.
- Whister, R. L. and Daniel, J. R. (1985). Carbohydrate. in Fennema, O. R. (Ed.). *Food Chemistry*. 2nd ed. New York. Marcel Dekker Inc., 74.
- WHO. (1998). *Medicinal Plants in South Pacific*. Manila. WHO Regional Office for the Western Pacific, 42-43.
- WHO. (1999). *WHO monographs on selected medicinal plants*. Geneva, vol.1
- Wilfido, J. B., Artur, X. R-S., Herro, M. H. and Burenaventuna, G. L. (2006). *Food Control*. [online]. Available www.elsevier.com/locate/foodcont (16 June 2007).
- Williams, P. G., Ross, H. and Brand, J. C., (1995). Ascorbic acid and 5 methyltetrahydrofolate losses in vegetables with cook/chill or cook/hot-hold foodservice systems. *Journal of Food Science*, 60, 541-546.
- Wolbang, C. M., Fitos, J. L. and Treeby, M. T. (2008). The effect of high pressure processing on nutritional value and quality attributes of *Cucumis melo* L. *Innovative Food Science and Emerging Technologies*, 9, 196-200.

- Wong, S. P., Leong, L. P. and William-Koh, J. H. (2006). Antioxidant activities of aqueous extracts of selected plants. *Food Chemistry*, 99, 775-783.
- Wrolstad, R. E., Skrede, G., Lea, P. and Enersen, G. (1990). Influence of sugar on antocyanin pigment stability in frozen strawberries. *Journal of Food Science*, 55(4), 1064-1072.
- Wuthrich, K. L., Bovet, L., Hunziker, P. E., Donnison, I. S. and Hortensteiner, S. (2000). Molecular cloning, functional expression and characterization of RCC reductase involved in chlorophyll catabolism. *Plant Journal*, 21, 189-198.
- Wuytack, E., Soons, J. and Michiels, C. (1997). Rapid measurement of pressure induced germination of *Bacillus subtilis* spores expressing green fluorescent protein. in Heremans, K. (Ed.). *High Pressure Research in the Bioscience and Biotechnology*, 261-264.
- Wuytack, E. Y., Soons, J., Poschet, F. and Michiels C. W. (2000). Comparative study of pressure and nutrient-induced germination of *Bacillus subtilis*, *Bacillus subtilis* spores. *Applied and Environmental Microbiology*, 66, 257-261.
- Wuytack, E. Y., Diels, A. M. J. and Michiels, C. W. (2002). Bacterial inactivation by high pressure homogenization and high hydrostatic pressure. *International Journal of Food Microbiology*, 77, 205-212.
- Yang, C. S. T. and Attalah, W. A. (1985). Effect of four drying methods on the quality of intermediate moisture low bush blueberries. *Journal of Food Science*, 50, 1233-1237.
- Yang, X. and Peppard, T. (1994). Solid-phase microextraction for flavor analysis, *Journal of Agricultural and Food Chemistry*, 42, 1925.
- Yanishlieva-Maslarove, N. V. (2001). Inhibiting oxidation. in Pokorny, J., Yanishliera, N. and Gordon, M. (Eds.). *Antioxidant in Food: practical Application*. Cambridge, England. Woodhead Publishing Ltd. Abington, 331-372.
- Yen, G. C. and Lin, H. T. (1996). Comparison of high pressure treatment and thermal pasteurization effects on the quality and shelf-life of guava puree. *International Journal of Food Science and Technology*, 31, 205-213.

- Yen, G. C. and Lin, H. T. (1999). Changes in volatile flavor components of guava juice with high-pressure treatment and heat processing and during storage. *Journal of Agricultural and Food Chemistry*, 47, 2082-2087.
- Yeom, H. W., Streaker, C. B., Zhang, Q. H. and Min, D. B. (2000). Effects of pulsed electric fields on the quality of orange juice and comparison with heat pasteurization. *Journal of Agricultural and Food Chemistry*, 48(10), 4597-4605.
- Yin, C. J. and Wang, C. R. (2003). Study of different heat treatment on the antioxidant activity of purple yam (*D. alata* L. var. *purpurea*) extracts. *Taiwanese Journal of Agricultural Chemistry and Food Science*, 41(6), 436-443
- Yoshinori, A., Reiko, M. and Tsunematsu, T. (1982). Mono and sesquiterpenoids from *Hydrocotyle* and *Centella* species. *Phytochemistry*, 21, 2590-2592.
- Youdim, K. A., Spencer, J. P. E., Schroeter, H. and Rice-Evans, C. A. (2002). Dietary flavonoids as potential neuroprotectants. *Biological Chemistry*, 383, 503-519.
- Youssef, A. H. and Rahman, A. (1982). Nutritional value of some canned tomato juice and concentrates. *Food Chemistry*, 9, 303-306.
- Yu, Z. R. and Chiang, B. H. (1986). Passion fruit juice concentration by ultrafiltration and evaporation. *Journal of Food Science*, 51, 1501-1505.
- Yu, Q-L., Duan, H-Q., Takaishi, Y. and Gao, W-Y. (2006). A Novel Triterpene from *Centella asiatica*. *Molecules*, 11, 661-665.
- Yusof, S., Shian, L. S., and Osman, A. (2000). Changes in quality of sugarcane juice upon delayed extraction and storage. *Food Chemistry*, 68, 395-401.
- Zabetakis, I. and Holden, M. A. (1997). Strawberry flavour: analysis and biosynthesis. *Journal of the Science of Food and Agriculture*, 74, 421-434.
- Zabetakis, I., Leclerc, D. and Kajda, P. (2000a). The effect of high hydrostatic pressure on the strawberry anthocyanins. *Journal of Agriculture and Food Chemistry*, 48, 2749-2754.
- Zabetakis, I., Koulentianos, A., Orruno, E. and Boyes, I. (2000b). The effect of high hydrostatic pressure on strawberry flavour compounds. *Food Chemistry*, 71, 51-55.
- Zainol, M. K., Hamid, A. A., Yusof, S and Muse, R. (2003). Antioxidative activity and total phenolic compounds of leaf, root and petiole of four accessions of *Centella asiatica*. *Food Chemistry*, 81, 575-581.

- Zhang, Z., Yang, M. I. and Pawliszyn, J. (1994). Solid-phase microextraction: a solvent-free alternative for sample preparation. *Analytical Chemistry*, 66, 845 A-853 A.
- Zheng, C. H., Kim, K. H., Kim, T. H. and Lee, H. J. (2005). Analysis and characterization of aroma-active compounds of *Schizandra chinensis* (omija) leaves. *Journal of the Science of Food and Agriculture*, 85, 161-166.



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