

REFERENCES

- Abramson, D., Hulasare, R., White, N.D.G., Jaya, D.S. and Marquardt, R.R. (1999). Mycotoxin formation in hulless barley during granary storage at 15 and 19% moisture content. *Journal of Stored Products Research* 35 (3): 297–305.
- Abramson, D., Usleber, E. and Märtlbauer, E. (1999). Rapid determination of citrinin in corn by fluorescence liquid chromatography and enzyme immunoassay. *Journal of AOAC International* 82 (6): 1353–1356.
- Akihisa, T., Tokuda, H., Ukiya, M., Kiyota, A., Yasukawa, K., Sakamoto, N., Kimura, Y., Suzuki, T., Takayasu, J. and Nishino, H. (2005a). Anti-Tumorinitiating effects of monascin, an azaphilone pigment from the extract of *Monascus pilosus* fermented rice (red-mold rice). *Chemistry & Biodiversity* 2:1305–1309.
- Alexopoulos, C.J. and Mims, C.W. (1979). *Introductory Mycology*. 3rd ed. John Wiley and Sons Ltd, New York.
- Alberts, A.W., Chen, J., Kuron, G., Hunt, V., Huff, J., Hoffman, C., Rothrock, J., Lopez, M., Joshua, H., Harris, E., Patchett, A., Monaghan, R., Currie, S., Stapley, E., Albers-Schonberg, G., Hensens, O., Hirshfield, J., Hoogsteen, K., Liesch, J. and Springer, J. (1980). Mevinolin: A highly potent competitive inhibitor of hydroxymethylglutaryl-coenzyme A reductase and a cholesterol-lowering agent. *Proceeding of the National Academy of Sciences USA* 77: 3957-3961.

- Andrea, B., Dionyz, M., Anna, L. and Monika, P. (2001). Utilization of *Monascus purpureus* in the production of foods of animal origin. Bulletin of the Veterinary Institute in Pulawy 45: 111-116.
- Aniya, J., Ohtani, I.I., Hiya, T., Miyagi, C.I., Gibo, H., Shimabukuro, M., Nakanishi H., and Taira, J. (2000). Dimerumic acid as an antioxidant from the mold, *Monascus anka*. Free radical Biology and Medicine 28(6): 999-1004.
- Apintanapong, M. (2004). Rice and its Aroma. University of the Thai Chamber of Commerce Journal 24 (2): 36-50.
- Aziz, N.H. and Moussa, L.A.A. (2002). Influence of gamma-radiation on mycotoxin producing moulds and mycotoxins in fruits. Food Control 13 (4-5): 281-288.
- Babitha, S., Soccol, C.R. and Pandey, A. (2007). Solid-state fermentation for the production of *Monascus* pigments from Jackfruit seed. Journal of Biotechnology 98(8): 1554-1560.
- Bailly, J.D., Querin, A., Bars-Bailly, S. Le., Benard, G. and Guerre, P. (2002). Citrinin production and stability in cheese. Journal of Food Protection 65 (8): 1317-1321.
- Banerjee, A., Dasgupta, N., and De, B. (2005). In vitro study of antioxidant of *Syzgium cumini* fruit. Food Chemistry 90: 727-733.
- Baskin, S.I., Salem, H. (1997). *Oxidants, Antioxidants, and Free Radicals*. Taylor & Francis. Washigton, DC.
- Bennett, J.W. and Klich, M. (2003). Mycotoxins. Clinical Microbiology Reviews 16 (3): 497-516.
- Berger, R.G. (1995). *Aroma Biotechnology*. Springer-Verlag, Berlin.

- Bergstrom, J. D., Dufresne, C., Bills, G.F., Nallin-Omstead, M. and Byrne, K. (1995). Discovery, biosynthesis, and mechanism of action of the Zaragozica CIDS: Potent Inhibitors of Squalene Synthase, *Annual Review of Microbiology*, 49: 607–639.
- Berndt, W.O. (1990). Ochratoxin–citrinin as nephrotoxins. In: G.C. Llewellyn and P.C. O’Rear, Editors, *Biodeterioration Research 3*, Plenum Press, New York, 55–56.
- Betina, V. (1989a). *Mycotoxins: Chemical, Biological and Environmental Aspects*. Elsevier, New York.
- Bhat, S. V., Nagasampagi, B. A. and Sivakumar, M. (2005). *Chemistry of Natural Product.*, Narosa Publishing House Pvt. Ltd., New Delhi.
- Bilgrami, K.S., Sinha, S.P. and Jeswal, P. (1988). Nephrotoxic and hepatotoxic effects of citrinin in mice (*Mus musculus*), *Proceeding of Indian National Science Academy B54*, 35–37.
- Blanc, P.J., Hajjai, H., Loret, M.O. and Goma, G. (1998). Control of the production of citrinin by *Monascus*. *Proceeding of the Symposium on Monascus culture and applications*, Toulouse, France.
- Blanc, P.J., Laussac, J.P., Bars, P.Le., Lolet, M.O., Pareilleux, A., Prome, D., Prome, J.C., Santerre, A.L. and Goma, G. (1995b). Characterization of monascidin A from *Monascus* as citrinin. *International Journal of Food Microbiology* 27: 201-213.
- Blanc, P.J., Loret, M.O. and Goma, G. (1995a). Production of citrinin by various species of *Monascus*. *Biotechnology Letters* 17 (3): 291.

- Boonsangsom, J., Pinthong, R., and Raviyan, P. (2004). Effect of *Monascus* fungi on the amount of citrinin in red yeast rice. Research Full Report, Department of Food Science and Technology, Faculty of Agro-Industry, Chiang Mai University, Thailand. (in Thai)
- Bridge, P.D. and Hawksworth, D. L. (1985). Biochemical tests as an aid to the identification of *Monascus* species. Letters in Applied Microbiology 1: 25-29.
- Broder, C.U. and Koehler, P.E. (1980). Pigments produced by *Monascus purpureus* with regard to quality. Journal of Food Science 45: 579-579.
- Bullard, R.W. and Holguin, G. (1977). Volatile compounds of unprocessed rice (*Oryza sativa* L.). Journal of Agricultural and Food Chemistry 25, 99-103.
- Buttery, R.G., Juliano, B.O. and Ling, L.C. (1982). Identification of rice aroma compound 2-acetyl-1-pyrroline in pandan leaves. Chemistry and Industry (London) 23: 958-959.
- Buttery, R.G., Ling, L.C., Juliano, B.O. and Turnbaugh, J.G.(1983). Cooks rice aroma and 2-acetyl-1-pyrroline in rice. Journal of Agricultural and Food Chemistry 31: 823-826.
- Buttery, R.G., Ling, L.C. and Mon, T.R. (1986). Quantitative analysis of 2-acetyl-1-pyrroline in rice. Journal of Agricultural and Food Chemistry 34: 7112-114.
- Buttery, R.G., Turnbaugh, J.G. and Ling, L.C. (1984). Studied on Flavor volatiles of some sweet corn products. Journal of Agricultural and Food Chemistry 42: 791-793.
- Buttery, R.G., Turnbaugh, J.G. and Ling, L.C. (1988). Contribution of volatiles to rice aroma. Journal of Agricultural and Food Chemistry 36: 1006-1009.

- Carels, M. and Shepherd, D. (1977). The effect of different nitrogen source on pigment production and sporulation of *Monascus* species in submerged shaken culture. *Canadian Journal of Microbiology* 23: 1360-1372.
- CAST (2003). Mycotoxin: risks in plant, animal, and human systems, Council of Agricultural Science and Technology, Task force rep. No. 139, CAST, Ames, IA.
- Chagas, G.M., Campello, A.P. and Kluppel, M.L.W. (1992a). Mechanism of citrinin-induced dysfunction of mitochondria. I. Effects on respiration, enzyme activities and membrane potential of renal cortical mitochondria. *Journal of Applied Toxicology* 12 : 123–129.
- Chagas, G.M., Oliveira, M.B.M., Campello, A.P. and Kluppel, M.L.W. (1992b). Mechanism of citrinin-induced dysfunction of mitochondria. II. Effects on respiration, enzyme activities and membrane potential of liver mitochondria. *Cell Biochemistry Function* 10 : 209–216.
- Chagas, G.M., Oliveira, M.B.M., Campello, A.P. and Kluppel, M.L.W. (1995). Mechanism of citrinin-induced dysfunction of mitochondria. III. Effects on renal cortical and liver mitochondria swelling. *Journal of Applied Toxicology* 15 : 91–95.
- Chandler, M., McIntyre, C. R. and Simpson, T. J. (1992). Biosynthesis of LL-D253a, a polyketide chromanone metabolite of *Phoma pigmentivora*: incorporation of ^{13}C , ^2H and ^{18}O labelled precursors. *Journal of the Chemical Society, Perkin Transactions I*, 1992: 2285–2293.

- Chen, F. and Hu, X. (2005). Study on red fermentated rice with high concentration of monacolin K and low concentration citrinin . *International Journal of food Microbiology* 103: 331-337.
- Comerio, V R., Fernandez Pinto, E. and Vaamonde, G. (1998). Influence of water activity on *Penicillium citrinum* growth and kinetics of citrinin accumulation in wheat. *International Journal of Food Microbiology* 42: 219–223.
- Deshpande, S. S. (2002). *Handbook of Food Toxicology*. Marcel Dekker, Inc., New York.
- Dussa, J., Kunz, B. and Strasse, R. (1998). *Pigment Production of Monascus purpureus and Consideration of Consumption of Free Amino acid*. Institute fur Lebensmittel Technologie. Toulouse. France.
- Domsch, K.H. (1980). *Compendium of Soil Fungi*. Vol. 1, Academic press, London.
- Dubois, P. (1994). Les aromes des vins et leurs deÂfauts. *Revue Francaise d'Oenologie* 145: 27-40.
- Endo, A. (1979). Monacolin K, a new hypocholesterolemic agent produced by a *Monascus* species. *The Journal of Antibiotics* 32: 852-854.
- Ei-Banna, A.A., Pitt, J.I. and Leistner, L. (1987). Production of mycotoxins by *Penicillium* species. *Systematic and Applied Microbiology* 10: 42–46.
- Endo, A. (1979). Monacolin K, a new hypocholesterolemic agent produced by a *Monascus* species. *The Journal of Antibiotics* 32: 852-854.
- Endo, A., Komakata, D. and Shimada, H. (1986). Monacolin M, A new Inhibitor of cholesterol biosynthesis. *The Journal of Antibiotic* 34(12): 1671-1673.

- Erdogrul, O. and Azirak, S. (2004). Review of the studies on the red yeast rice (*Monascus purpureus*). Turkish Electronic Journal of Biotechnology 2: 37-49.
- Fabre, C.E., Santerre, A.L., Loret, M.O., Baberian, R., Pareilleux, A., Goma, G. and Blanc, P.J. (1993). Production and food applications of the red pigments of *Monascus ruber*. Journal of Food Science 58:1099–1110.
- Fragoso, V., Nascimento, I. C., Moura, D. J., Catarina, A., Silva, R., Richter, M. F., Saffi, J. and Fett-Neto, A. G. (2008). Antioxidant and antimutagenic properties of the monoterpene indole alkaloid psychollatine and the crude foliar extract of *Psychotria umbellata* Vell. Toxicology in Vitro 22(3): 559-566.
- Franco, C.M., Fente, C.A., Vazquez, B., Cepeda, A., Lallaoui, L., Prognon, P. and Mahuzier, G. (1996). Simple and sensitive high-performance liquid chromatography-fluorescence method for the determination of citrinin application to the analysis of fungal cultures and cheese extracts. Journal of Chromatography A 723 (1): 69–75.
- Frank, H.K. (1992). Citrinin. Zeitschrift fur Ernährungswissenschaft 31: 164–177.
- Friedrich, J., Zuzek, M., Bencina, Cimerman, A., Strancar, A., and Radez, I. (1995). High-performance liquid chromatographic analysis of mevinolin as mevinolinic acid in fermentation broths. Journal of Chromatography A 704: 363-367.
- Gamble, S.J.R. and Orcutt, F.S. (1951). Possible use of rose bengal agar as differential medium for the Isolation of bacteria in the family Rhizobiaceae. The Journal of Bacteriology 62(2), 247.

- Ganong, W.F. (1999). *Review of Medical Physiology*. 19th ed., Appleton & Lange, Stamford.
- Garrway, M.O. and Evans, R.C. (1984). *Fungal, Nutrition and Physiology*. John Wiley & Sons Ins., New York.
- Gimeno, A. and Martins, M.L. (1983). Rapid thin layer chromatographic determination of patulin, citrinin, and aflatoxin in apples and pears, and their juices and jams. *Journal of the Association of Official Analytical Chemists* 66 (1): 85–91.
- Glahn, R.P., Shapiro, R.S., Vena, V.E., Wideman R.F. and Huff, W.E. (1989). Effects of chronic ochratoxin A and citrinin toxins on kidney function of single comb white leghorn pullets. *Poultry Science* 68 (9): 1205–1211.
- Hai, Z. (1998). Production of monacolin K by *Monascus purpureus*. On rice solid state fermentation. Proceedings of the symposium on *Monascus* culture and applications, Toulouse, France.
- Hai, Z. (2002). Production of monacolin by *Monascus purpureus* on rice solid state fermentation. Chengdu Institute of Biology Chinese Academy of Sciences, Chengdu, Sichuan, China. [Online]. Available <http://monascus.net/eindex.htm> (4 August 2002).
- Hajjaj, H., Klaébé, A., Loret, M.O., Goma, G., Blanc, P.J. and François, J. (1999). Biosynthetic pathway of citrinin in the filamentous fungus *Monascus ruber* as revealed by ¹³C nuclear magnetic resonance. *Applied and Environmental Microbiology* 65(1): 311–314.

- Hajjaj, H., Klaebe, A., Goma, G., Blanc, P.J., Barbier, E. and Francois, J. (2000a). Medium-chain fatty acids affect citrinin production in the filamentous fungus *Monascus ruber*. *Applied and Environmental Microbiology* 66(3): 1120-1125.
- Hajjaj, H., Niederberger, P. and Duboc, P. (2001). Lovastatin biosynthesis by *Aspergillus terreus* in a chemistry defined medium. *Applied and Environmental Microbiology* 67: 2596-2602.
- Halliwell, B., Aeschbach, R., Loliger, J. and Aruoma, O. I. (1995). The characterization of antioxidants. *Journal of Food Chemistry* 33: 601-617.
- Hanika, C., Carlton, W.W. and Tuite, J. (1983). Citrinin mycotoxicosis in the rabbit. *Food and Chemical Toxicology* 21: 487-493.
- Han, O. (1990). Optimization of *Monascus* pigment production in solid-state fermentation. Ph.D. Thesis, University of Massachusetts, Amherst.
- Hanpongkittikul, A., Haewsungcharern, M. and Pinthong, R. (1988). Factor affecting red yeast rice production using *Monascus purpureus*. *Journal of Agriculture, Chiang Mai University* 4(2): 125-128. (in Thai).
- Hawksworth, D.L. and Pitt, J.I. (1983). A new taxonomy for *Monascus* species based on cultural and microscopical characters. *Australian Journal of Botany* 31: 51-61.
- Helen. (2002). Lovastatin. Worthington st. catherinescollege [online]. Available <http://www.chem.ox.ac.uk/mon/mecavor.htm> (20 January 2002)
- Herber, D., Yip, I., Ashe, J.M., Elashoff, D.A., Elashoff, R.M. and Go, V.L.W. (1999). Cholesterol- lowering effects of a proprietary Chinese red-yeast-rice dietary supplement. *The American Journal of Clinical Nutrition* 69: 231-236.

- Heber, D., Lembertas, A., Lu, Q.Y., Bowerman, S. and Go, V.L.W. (2001). An analysis of nine proprietary Chinese red yeast rice dietary supplements: implications of variability in chemical profile and contents. *Journal of Alternative and Complementary Medicine* 7(2): 133–139.
- Hetherington, A.C. and Raistrick, H. (1931). Studies in biochemistry of microorganism XI. On the production and chemical constitution of a new yellow colouring matter, citrinin, produced from glucose by *Penicillium citrinum* Thom. *Philosophical Transactions of the Royal Society of London Series B—Biological Sciences* 220: 269–297.
- Hirota, M., Menta, A.B., Yoneyama, K. and Kitabatake, N. (2002). A major decomposition product, citrinin H2, from citrinin on heating with Moisture. *Bioscience, Biotechnology and Biochemistry* 66(1): 206–210.
- Hong, M.Y., Seram, N.P., Zhang, Y. and Heber, D. (2008). Anticancer effects of Chinese red yeast rice versus monacolin K alone on colon cancer cells. *Journal of Nutritional Biochemistry* 19(7): 448–458.
- IARC (1986). Some naturally occurring and synthetic food components, coumarins ultraviolet radiation. In: *Monographs of the Evaluation of the Carcinogenic Risk of Chemical to Human*. IARC, Lyon 40: 83–98.
- Iizuka, H. and Lin, C.F. (1981). On the genus *Monascus* of Asia and its specific characteristics. In: M. Moo-Young, C.W. Robinson and C. Vezina, Editors, *Advances in Biotechnology*. Pergamon Press, Toronto 2: 555–561.
- Insomphun, S. (2003). *Rice (Oryza sativa L.)*. Faculty of Agriculture, Chiang Mai, Thailand. [Online]. Available <http://agronomy.agri.cmu.ac.th/elearning/agron313/rice.doc>, (15 August 2008)

- Janardhana, G.R., Raveesha, K.A. and Shetty, H.S. (1999). Mycotoxin contamination of maize grains grown in Karnataka (India). *Food and Chemical Toxicology* 37(8): 863–868.
- Jarvis, B. (1973). Comparison of an improved rose-bengal-chlortetracycline agar with other media for the selective isolation and enumeration of molds and yeasts in food. *Journal of Applied Bacteriology* 36(4): 723-727.
- Johns, M.R. and Stuart, D.M. (1991). Production of pigment by *Monascus purpureus* in solid culture. *Journal of Industrial Microbiology* 8: 23-28.
- Karahadian, C. and Johnson, K.A. (1993). Analysis of the head space volatiles and sensory characteristics of fresh corn toytillas made from fresh Masa dough and spray dried Masa Flour. *Journal of Agricultural and Food Chemistry* 70: 381-384.
- Kitabatake, N., Trivedi, A.B. and Doi, E. (1991). Thermal decomposition and detoxification of citrinin under various moisture conditions. *Journal of Agricultural and Food Chemistry* 39 (12): 2240–2244.
- Kpodo, K., Sorensen, A.K. and Jakobsen, M. (1995). The occurrence of mycotoxins in fermented maize products. *Food Chemistry* 56(2): 147–153.
- Kranz, C., Panitz, C. and Kunz, B. (2004). Biotransformation of free fatty acids in mixtures to methyl ketones by *Monascus purpureus*. *Applied Microbiology and Biotechnology* 36(4): 436-439.
- Kulisica, T., Radonich, A., Katalinicc, V. and Milos, M. (2004). Use of different methods for testing antioxidative activity of oregano essential oil. *Journal of Food Chemistry* 85: 633–640.

- Kurata, H. (1990). Mycotoxins and mycotoxicoses. In: A.E. Pohland, V.R. Dowell and J.L. Richards, Editors, *Microbial toxins in foods and feeds*, Plenum Press, New York, 249–259.
- Laksanalamai, V. and Ilangantileke, S. (1993). Comparison of aroma compound (2-acetyl-1-pyrroline) in leaves from pandan (*Pandanus amaryllifolius*) and Thai fragrant rice (Khao Dawk Mali-105). *Cereal Chemistry* 70 (4): 381-384.
- Lee, C.L., Wang J.J., Kuo S.L. and Pan, T.M. (2006). *Monascus* fermentation of dioscorea for increasing the production of cholesterol-lowering agent-monacolin K and antiinflammation agent-monascin. *Applied Microbiology and Biotechnology* 72: 1254-1262.
- Lee, C.Z., Wang, C.B., Chen, C.C., Teng.C.H., Yuan. and Liao, C.C. (2002). A *Monascus* strain with high productivity in both red pigment and monacolin K Technical Poster Session: General Food Microbiology, Session II . [Online] Available <http://www.confex.com/ift/98annual/accepted/423.htm> (23 June 2002).
- Lee, Y.K. and Chen, D.C. (1998a). Application of *Monascus* pigment as food colorant. Singapore. Fermentation Laboratory, Department of Microbiology National University of Singapore. [Online]. Available <http://monascus.net/eindex.htm> (13 August 2007).
- Lepom, P. (1986). Simultaneous determination of the mycotoxins citrinin and ochratoxin A in wheat and barley by high-performance liquid chromatography. *Journal of Chromatography* 355(1): 335–339.

- Li, F., Xu, G., Li, Y. and Chen, Y. (2003). Study on the production of citrinin by *Monascus* strains used in food industry. *Journal of Hygiene research* 32(6): 602–605.
- Li, G. (2002). The manufacturing of wentardin capsule, a new registered and marketable drug Based on red rice as raw material. Department of Technical Physics, Peking University, Beijing, China. [Online]. Available <http://monascus.net/eindex.htm> (8 August 2002).
- Li, C., Zhu, Y. and Wang, Y. (1998). *Monascus purpureus* fermented rice (red yeast rice): a natural food product that lowers blood cholesterol in animal models of hypercholesterolemia. *Nutrition Research* 18: 71-81.
- Li, Y.G., Liu, H. and Wang, Z.T. (2005). A validated stability-indicating HPLC with photodiode array detector (PDA) method for the stress tests of *Monascus purpureus* fermented rice, red yeast rice. *Journal of Pharmaceutical and Biomedical Analysis* 39: 82-90.
- Li, Y.G., Zhang, F., Wang, Z.T. and Hu, Z.B. (2004). Identification and chemical profiling of monacolins in red yeast rice using high-performance liquid chromatography with photodiode array detector and mass spectrometry. *Journal of Pharmaceutical and Biomedical Analysis* 35: 1101-1112.
- Lin, C.F. (1973). Isolation and culture condition of *Monascus* sp. For the production of pigment in submerged culture method. *Journal of Fermentation Technology* 51 (61): 407- 414.
- Lin, C.F. and Demain, A.L. (1991). Effect of nutrition of *Monascus* sp. On formation of red pigments. *Applied Microbiology and Biotechnology* 36: 70-75.

- Lin, C.F. and Iizuka H. (1982). Production of extracellular pigment by a mutant of *Monascus kaoliang* sp. nov. *Applied and Environmental Microbiology* 43 (3): 671-676.
- Lin, C.F., Hsien, T.C.Y. and Hoff, B.J. (1990). Identification of popcorn-like aroma in Louisiana aromatic delta rice (*Oryza sativa* L.). *Journal Food Science and Chemistry* 55: 1466-1467.
- Lin, Y.L., Wang, T.H., Lee, M.H., Su N.W. (2008). Biologically active components and nutraceuticals in the *Monascus*-fermented rice; a review. *Applied Microbiology and Biotechnology* 77: 965-973.
- Ma, J.Y., Li, Y.G., Ye, Q., Li, J and Hua, y. (2000). Constituents of red yeast rice, a traditional Chinese food and medicine. *Journal of Agricultural and Food Chemistry* 48(11): 5220-5225.
- Mahatheerant, S., Promdang, S. and Chiampiriyakul, A. (1995). Volatile aroma compounds of Khao Dawk Mali-105 rice. *Kasetsart Journal (Natural Science)* 29: 508-514.
- Mandt, M. (1998). Legal opinion on the use of red fermented rice (Angkaks) in food. Paper collection for a symposium of *Monascus* cultures and application, held from July 8th to 10th, in Toulouse, France.
- Martins, M.L., Gimeno, H.M., Martins, H.M. and Bernardo, F. (2002). Co-occurrence of patulin and citrinin in Portuguese apples with rotten spots. *Food Additives and Contaminants* 19(6): 568-574.
- Martinkova, L., Juzlova, P. and Vesely, D. (1995). Biological-activity of polyketide pigments produced by the fungus *Monascus*. *Journal of Applied Bacteriology* 79:609-616.

- Martinkova, L., Patakova-Juzlova, P., Kren, V., Kucerova, Z., Havlicek, V., Olsovsky, P., Hovorka, O., Rihova, B., Vesely, D., Vesela, D., Ulrichova, J. and Prikrylova, V. (1999). Biological activities of oligoketide pigments of *Monascus purpureus*. *Food Addition and Contaminant* 16:15–24.
- McGawa, L. J., Steenkamp, V. and Eloff, J. N. (2007). Evaluation of *Athrixia* bush tea for cytotoxicity, antioxidant activity, caffeine content and presence of pyrrolizidine alkaloids. *Journal of Ethnopharmacology* 110: 16–22.
- Meister, U. (2004). New method of citrinin determination by HPLC after polyamide column clean-up. *European Food Research and Technology* 218: 394–399.
- Miche, L. and Balandreau, J. (2001). Effect of rice seed surface sterilization with hypochlorite on inoculated *Burkholderia vietnamiensis*. *Journal of Applied and Environmental Microbiology* 67(7): 3046-3052.
- Morovjan, G., Szakacs, G. and Fekete, J. (1997). Monitoring of selected metabolites and biotransformation products from fermentation broths by high-performance liquid chromatography. *Journal of Chromatography A* 763: 165-172.
- Nishijima, M. (1984). In: H. Kurata and Y. Ueno, Editors, *Toxigenic fungi*, Elsevier, Amsterdam, 172–181.
- Nishikawa, J., Watanabe, Y., Kashimura, J. and Iizuka, H. (1988). Characterization Of extracellular proteinases of the genus *Monascus* by their pH-activity profiles. *The Journal of General and Applied Microbiology* 34: 467-473.
- Nsimba, R.Y., Kikuzaki, H. and Konishi, Y. (2008). Antioxidant activity of various extracts and fractions of *Chenopodium quinoa* and *Amaranthus* spp. seeds. *Food Chemistry* 106: 760-766.

- Ober, P. and Kunz, B. (1989). Wirkung von Stoffwechselprodukten des *Monascus purpureus* auf Bakterien. *Fleishwirtschaft* 69: 123-125.
- Odhav, B. and Naicker, V. (2002). Mycotoxins in south african traditionally brewedbeers. *Food Additives and Contaminants* 19(1): 55–61.
- Ottow, J.C.G. and Glathe, H. (1968). Rose Bengal-malt extract-agar, a simple edium for the simultaneous isolation and enumeration of fungi and actinomycetes from soil. *Journal of Applied Microbiology* 16(1): 170-171.
- Palo, M.A., Vial-Adeva L. and Maceda, L. (1960). Study on ang-kak and its production. *Philippine Journal of Science*. 89: 1-19.
- Packer, L., Hiramatsu, M. and Yoshikawa, T. (1999). *Antioxidant Food Supplements in Human Health*. Academic press. Sandiego.
- Patakova-Juzlova, P., Rezanka, T. and Viden, I. (1998). Identification of volatile etabolites from rice fermented by the fungus *Monascus Purpureus* (Ang-kak). *Folia Microbiologica* 43: 407-410.
- Pattanagul, P. (2002). “The use of vegetable oil, ankak, protein from soy bean flour and cassava to improve the quality of sausage products”. Master Thesis in Food Science and Technology, Graduate school, Chiang Mai University, 203-247. (in Thai)
- Pattanagul, P., Pinthong, R., Phianmongkhol, A. and Tharatha, S. (2008). Mevinolin, citrinin and pigments of adlay angkak fermented by *Monascus* sp. *International Journal of Food Microbiology* 126: 20-23.
- Paule, C.M. and Powers, J. (1989). Sensory and chemical examination of aromatic and nonaromatic rices. *Journal of Food Science* 54: 343-347.

- Petrov, M., Danzart, M., Giampaoli, P., Faure, J. and Richard, H. (1996). Rice aroma analysis: discrimination between a scented and a non-scented rice. *Sciences des Aliments (France)* 16 (4): 347-360.
- Phillips, R.D., Hayes, A.W. and Berndt, W.O. (1980a). High-performance liquid chromatographic analysis of the mycotoxin citrinin and its application to biological fluids. *Journal of Chromatography* 190 (2): 419-427.
- Phillips, R.D., Hayes, A.W., Berndt, W.O. and Williams, W. (1980b). Effects of citrinin on renal function and structure., *Toxicology* 16: 123-127.
- Pinthong, R., Baipong, S. and Raviyan, P. (2004). Effect of monosodium glutamate and histidine on the production of red pigment and citrinin in red yeast rice. Research Full Report, Department of Food Science and Technology, Faculty of Agro-Industry, Chiang Mai University. Thailand.
- Pinthong, R., Rujanakraikran L. and Raviyan, P. (2000). Production of pork sausage using anak to produce pigments, *Journal Kaen Kaset* 28(2):89-96. (in Thai)
- Pohland, A.E. and Wood, G.E. UK (1987). Occurrence of mycotoxins in food. In: P. Krogh, Editor. *Mycotoxins in Food*. Academic Press, London, 35-64.
- Poupko, R., Luz, Z. and Destro, R. (1997). Carbon-13 NMR of citrinin in the solid state and in solutions. *Journal of Physical Chemistry A* 101: 5097-5102.
- Prieto, P., Pineda, M. and Aguilar, M. (1999). Spectrophotometric quantitation of antioxidant capacity through the formation of a phosphomolybdenum complex: specific application to the determination of vitamin E1. *Journal of Analytical Biochemistry* 269: 337-341.

- Promptutha, I. (2006). "Roles of Endophytic Fungi on the Diversity of Saprobic Fungi". Ph.D. Thesis, Chiang Mai University, Thailand.
- Roberfroid, M. and Calderon, P.B. (1995). *Free Radicals and Oxidation Phenomena in Biological Systems*. Marcel Dekker, Inc. New York.
- Romano, P. and Suzzi, G. (1993). Acetoin production by *Saccharomyces cerevisiae* wine yeasts. *FEMS Microbiology Letters* 108: 23-26.
- Romano, P., Suzzi, G., Brandolini, V., Menziani, E. and Domizio, P. (1996b) Determination of 2,3-butanediol in high and low acetoin producers of *Saccharomyces cerevisiae* wine yeasts by automated multiple development (AMD). *Letters in Applied Microbiology* 22: 299-302.
- Sabater-Vilar, M., Roel, F., Mass, R.F.M. and Fink-Gremmels, J. (1999). Mutagenicity of commercial fermentation products and the role of citrinin contamination. *Mutation Research* 444: 7-16.
- Samson, R.A., Hoekstra, E.S., Frisvad, J.C. and Filtenborg, O. (1995). *Introduction to Food-Borne Fungi*, 4th edition, Ponsen & Looyen, Wageningen, The Netherland.
- Schneweis, I., Meyer, K., Hörmansdorfer, S. and Bauer, J. (2001). Metabolites of *Monascus ruber* in silages. *Journal of Animal Physiology and Animal Nutrition* 85 (1-2): 38-44.
- Schieberle, P. (1991). Primary odorants of popcorn. *Journal of Agricultural and Food Chemistry* 39: 1141-1144.
- Schieberle, P. and Grosch, W. (1985). Identification of volatile flavor compounds of wheat bread crust-comparison with rye bread crust. *Z. Lebensm-Unters-Forsch* 180:474-478.

- Segura, B. (2003). Red yeast rice: An easy way to lower cholesterol, *Nutrition Bytes*, 9(1): 1-6.
- Shu, P.Y. and Lin, C.H. (2002). Simple and sensitive determination of citrinin in *Monascus* by GC-selected Ion monitoring mass spectrometry . *Analytical Sciences* March 18: 283-287.
- Simpson, T.J. (1986). Studies of polyketide chain-assembly processes. In: Steyn P S, Vleggaar R., Steyn P.S. and Vleggaar R. *Mycotoxins and Phycotoxins*. Amsterdam, Elsevier Science Publishers B. V., 85–96.
- Singhapol, C. (2005). “Red pigment production of *Monascus purpureus* TISTR3002 and *Monascus purpureus* TISTR3179 using various ingredient”. 31st Congress on Science and Technology of Thailand at Suranaree University of Technology, p. 121.
- Shinohara, T. (1984). L'importance des substances volatiles du vin. Formation et effets sur la qualite. Bulletin de l'Office International du Vin 641-642, 606-618.
- Sorensen, J.M., Auclair, K., Kennedy, J., Hutchinson, C.R. and Vederas, J.C. (2003). Transformations of cyclic nonaketides by *Aspergillus terreus* mutants blocked for lovastatin biosynthesis at the lov C genes. *Journal of the Royal Society of Chemistry* 1: 50-59.
- Stafford, H. A. and Ibrahim, R. K. (1992). *Phenolic Metabolism in Plants*. Plenum Press. New York.
- Stark, D., Münch, T., Sonnleitner, B., Marison, I.W. and Stockar, U. von. (2002). Extractive bioconversion of 2-phenylethanol from L-phenylalanine by *Saccharomyces cerevisiae*, *Biotechnology Progress* 18: 514–523.

- Stchigel, A.M., Cano, J.F., Abdullah, S.K. and Guarro, J. (2004). New and interesting species of *Monascus* from soil, with a key to the known species, *Studies in Mycology* 50: 299-306.
- Su, Y.C., Wang, J.J., Lin, T.T. *et al.* (2003). Production of the secondary metabolite γ -aminobutyric acid and monacolin K by *Monascus*. *Journal of Industrial Microbiology Biotechnology* 30: 16-41.
- Su, N.W., Lin, Y.L., Lee, M.H. and Ho, C.Y. (2005). Ankaflavin from *Monascus* Fermented red rice exhibits selective cytotoxic effect and induces cell death on Hep G2 cells. *Journal of Agricultural and Food Chemistry* 53:1949–1954.
- Sweeny, J.G., Estrada-Valdes, M.C., Iacobacci, G.A., Sato, H. and Sakamura, S. (1981). Photoprotection of the red pigments of *Monascus anka* in aqueous media by 1,4,6- trihydroxynaphthalene, *Journal of Agricultural and Food Chemistry* 29 (6): 1189- 1193.
- Taira, J., Miyagi, C. and Ariya, Y. (2002). Dimeric acid as an antioxidant from the mold, *Monascus anka*: the inhibition mechanisms against lipid peroxidation and heme protein-mediated oxidation. *Biochemical Pharmacology* 63(5): 1019-1026.
- Theunissen, J. D. (1995). Phenolic compounds in the leaves of ecotypes of three graminoides in the semi-arid grasslands of southern Africa. *Journal of Arid Environments* 31: 45–53.
- Tieghem, M. Van. (1884). *Monascus* genre nouveau de l'ordre des Ascomycetes. *Bulletin de la Société Botanique. France*, 31: 226-231.
- Trenin, A.S. and Katrukha, G.S. (1997). Antibiotics inhibiting the biosynthesis of cholesterol (a review). *Pharmaceutical Chemistry Journal* 31: 5-16.

- Trinetra, N., Thaniyavarn, J., Yompakdee, C. and Leepipatpiboon, N. (2005). "The effect of different rice strains on the flavor of Sato". 31st Congress on Science and Technology of Thailand at Suranaree University.
- Trivedi, A.B., Doi, E. and Kitabatake, N. (1993). Toxic compounds formed on prolonged heating of citrinin under watery conditions. *Journal of Food Sciences* 58 (1): 229–231.
- Udagawa, S. and Baba, H. (1998). *Monascus lunisporas*, a new species isolated from mouldy feeds. *Cryptogamie Mycologie* 19: 269-276.
- Vazquez, B.I., Fente, C., Franco, C., Cepeda, A., Prognon, P. and Mahuzier, G. (1996). Simultaneous high-performance liquid chromatographic determination of ochratoxin A and citrinin in cheese by time-resolved luminescence using terbium. *Journal of Chromatography A* 727: 185–193.
- Vrabcheva, T., Usleber, E., Dietrich, R. and Martlbauer, E. (2000). Co-occurrence of ochratoxin A and citrinin in cereals from Bulgarian villages with a history of Balkan endemic nephropathy. *Journal of Agricultural and Food Chemistry* 48 : 2483–2488.
- Wang, J., Lu, Z. and Chi, J. (1997). Multicenter clinical trial of the serum lipid-lowering effects of a *Monascus purpureus* red yeast rice preparation from traditional Chinese medicine. *Current Therapeutic Research* 58(12): 964–978.
- Wang, J.J., Lee, C.L. and Pan, T.M. (2004). Modified mutation method for screening low citrinin producing strains of *Monascus purpureus* on rice culture. *Journal of Agricultural and Food Chemistry* 52(23): 6977-6982.
- Went, F.A.F.C. (1895). *Monascus purpureus*, Le Champignon de l'Ang-quac, une Nouvelle Thelebole. *Annales des Sciences Naturelles, Botanique* 81: 1-18.

- Widjaja, R., Craske, J.D., and Wootton, M. (1996). Comparative studies on volatile components of non-fragrant and fragrant rices. *Journal of the Science of Food and Agriculture* 70: 151-161.
- Wheatley, R. A. (2000). Some recent trends in the analytical chemistry of lipid peroxidation. *Journal of Analytical Chemistry* 19: 617-628.
- Wong, H.C. and Koehler, P.E. (1981). Production and isolation of an antibiotic from *Monascus purpureus* and its relationship to pigment production. *Journal of Food Science* 46: 589-592.
- Wongpiyachon, S. (1997). Analysis of amylose by fast method, document distributed in course on standard and quality of Mali rice, Rice Research Center, Patumtani. (in Thai)
- Wu, Y.S. (1966). *Chinese Technology in Seventeenth Century*. Sun E-T and Sun S-C. transl. London: Pennsylvania State University Press, 291-294.
- Xu, B.J., Wang, Q.J., Lee, J.H., Jia, X.Q. and Sung, C.K. (2003). HPLC analysis of citrinin in red yeast rice. *Food Science and Biotechnology* 12(4): 376-380.
- Xu, B.J., Jia, X.Q., Gu, L.j. and Sung, C.K. (2006). Review on the qualitative and quantitative analysis of mycotoxin citrinin. *Journal of Food Control* 17: 271-285.
- Xu, G., Wu, Y., Tang, J. and Yang, G. (2002). Production of health-care red rice with high color value and monacolin K. Shandong Pinggyi Wannerng Agriculture and Animal Husbandry Food Co. Ltd. China. [Online]. Available <http://monascus.net/eindex.htm> (13 August 2007).

Xu, G., Yang, G., Ma, J., and Wu, Y. (1998)). Solid state fermentation of *Monascus anka* with corn as the raw material. Proceedings of the Symposium on *Monascus* culture and Application. Toulouse. France.

Xu, G.R., Lu, C., Mu, X.Q., Chen, J.L., Chen, Y., Gu, Y.M., Wu, Y.P., Sheng, F. and Wu, M.Y. (1999), A study on the production of citrinin by *Momascus* spp. *Archiv Fur Lebensmittelhygiene* 50: 88–91.

Yasukawa, K., Akihisa, T., Oinuma, H., Kaminaga, T., Kanno, H., Kasahara Y., Tamura, T., Kumaki, K., Yamanouchi, S. and Takido, M. (1996). Inhibitory effect of taraxastane-type triterpenes on tumor promotion by 12-O-tetradecanoylphorbol-13-acetate in two-stage carcinogenesis in mouse skin. *Oncology* 53:341–344.

Yasukawa, K., Takahashi, M., Natori, S., Kawai, K., Yamazaki, M., Takeuchi, M. and Takido, M. (1994). Azaphilones inhibit tumor promotion by 12-O-tetradecanoylphorbol-13-acetate in 2-stage carcinogenesis in Mice. *Oncology* 51:108–112.

Yongsmith, B. (1999). *Fermentative Microbiology of Vitamin and Pigments*. 1st

edition, Kasetsart University Press, Bangkok. (in Thai) Yongsmith, B.,

Kitprechavanich, V., Chitradon, L., Chaisrisook C. and Budda, N. (2000).

Color mutants of KB9 and their comparative glucoamylases on rice solid culture. *Journal of Molecular Catalysis. B: Enzymatic* 10: 263-272.

“Soybean” [Online]. Available [http://www. Soybean - Wikipedia, the free encyclopedia.htm](http://www.Soybean - Wikipedia, the free encyclopedia.htm) (15May2009).

“Rice” [Online]. Available <http://en.wikipedia.org/wiki/Rice>(19 May 2009).