

## 9. Literatur

- Adamson GE, Lazarus SA, MitvHELL AE, Prior RL, Cao G, Jacobs PH, Kremers BG, Hammerstone JF, Rucker RB, Ritter KA, Schmitz HH (1999) HPLC method for the quantification of procyanidins in cocoa and chocolate samples and correlation to antioxidant capacity. *J. Agric. Food Chem.*, 47, 4184-4188
- Alvarez V, Andreas LJ, Riera FA, Alvarez R (1996) Microfiltration of apple juice using inorganic membranes: Process optimisation and juice stability. *Can. J. Chem. Eng.*, 74, 156-162
- Alvarez S, Alvarez R, Riera FA, Coca J (1998) Influence of depectinization on apple juice ultrafiltration. *Colloid Surface A*, 138, 377-382
- Amiot MJ, Tacchini M, Aubert S, Nicolas J (1992) Phenolic composition and browning susceptibility of various apple cultivars at maturity. *J. Food Sci.*, 57, 958-962
- Anese M, Nicoli MC, Mastrocola D, Manzocco L, Lerici CR (1996) Antioxidant properties of polyphenol-containing foods in relation to heat treatments and storage conditions. In: Proceeding of the Symposium on Polyphenols and Anthocyanins as Food colourants and Antioxidants, Vienna, 15 Nov. 1996, 20-30
- Anonymus (1997) Hochwertiger Apfelsaft von Streuobstwiesen. *Flüssiges Obst* 64, 380
- Anonymus (1998) Getränke-Innovationen. *Brauwelt*, 138, 2316-2319
- Arimoto-Kobayashi S, Sugiyama C, Harada N, Takeuchi M, Takemura M, Hayatsu H (1999) Inhibitory effects of beer and other alcoholic beverages on mutagenesis and DNA adduct formation induced by several carcinogens. *J. Agric. Food Chem.*, 47, 221-230
- Baderschneider B, Luthria D, Waterhouse AL, Winterhalter P (1999) Antioxidants in white wine (cv. Riesling): I. Comparison of different testing methods for antioxidant activity. *Vitis*, 38, 127-131
- Bakker J, Preston NW, Timberlake CF (1986) The determination of anthocyanins in aging red wines: comparison of HPLC and spectral methods. *Am. J. Enol. Vitic.*, 37, 121-126
- Bakker J, Bridle P, Bellworthy SJ (1994) Strawberry Juice Colour: A Study of the Quantitative and qualitative Pigment Composition of Juices from 39 Genotypes. *J. Sci. Food Agric.*, 64, 31-37
- Belitz HD, Grosch W (1992) *Lehrbuch der Lebensmittelchemie*. 4. Aufl., Springer Verlag Berlin, 756-762
- Benezra C (1990) Polyphenol-protein interactions and contactdermatitis. *Bulletin de Liaison, Groupe Polyphénols JIEP XIV, Straßburg*
- Benthath A, Rusznyak S, Szent-György A (1936) Vitamin nature of flavones. *Nature*, 798ff
- Benthath A, Rusznyak S, Szent-György A (1937) Vitamin P. *Nature*, 326ff
- Benzie IFF, Strain JJ (1996) The ferric reducing ability of plasma (FRAP) as a measure of "antioxidant" power: the FRAP assay. *Anal. Biochem.*, 239, 70-76
- Benzie IFF, Szeto YT (1999) Total antioxidant capacity of teas by the ferric reducing/antioxidant power assay. *J. Agric. Food Chem.*, 47, 633-636
- Bernwieser I, Pätzold R, Galensa R, Sontag G (1994) HPLC mit coulometrischer Elektroden-Array-Detektion. *Z. Lebensm. Unters. Forsch.* 198, 40-43
- Beveridge T (1997) Haze and cloud in apple juices. *Crit. Rev. Food Sci. Nutr.*, 37, 75-91
- Binnig R (1992) Helle, farbstabile naturtrübe Apfelsäfte. *Flüss. Obst*, 59, 540-544
- Bitsch I, Shahrzad S, Borsch C (1997) Absorption and metabolism of gallic acid after oral application in humans. Exerts this plant derived phenolic acid antioxidant activity in vivo? In: Armadò R, Andersson H, Bardócz S, Serra F (Eds.) *Polyphenols in food - Proceedings of a European COST concerted action scientific workshop*, Aberdeen, Scotland, 195-198
- Bjeldanes LF, Chang GW (1977) Mutagenic activity of quercetin and related compounds. *Science*, 197, 577-578
- Block G, Patterson B, Subar A (1992) Fruit and vegetable and cancer prevention. A review of the epidemiological evidence. *Nutr. Cancer*, 18, 12-29

- Blois MS (1958) Antioxidant determinations by the use of a stable free radical. *Nature*, 181, 1199-1200
- Böhles HJ (1991) Radikalerkrankungen – die Bedeutung von Sauerstoffradikalen für die klinische Medizin. *Z. Geriatrie*, 4, 358-372
- Böhm H, Boeing H, Hempel J, Raab B, Kroke A (1998) Flavonole, Flavone und Anthocyane als natürliche Antioxidantien der Nahrung und ihre mögliche Rolle bei der Prävention chronischer Erkrankungen. *Z. Ernährungswiss.*, 37, 147-163
- Booth A.N., Emerson O.H., Jones F.T., Deeds F. (1957) Urinary metabolites of caffeic and chlorogenic acids. *J. Biol. Chem.*, 229, 51-59
- Boyles MJ, Wrolstad RE (1993) Anthocyanin composition of red raspberry juice: Influence of cultivar, processing, and environmental factors. *J. Food Sci.*, 58, 1135-1141
- Bronnum-Hansen K, Hansen SH (1983) High-performance liquid chromatographic separation of anthocyanins of *Sambucus nigra*. *J. Chromatogr.*, 262, 385
- Burda S, Oleszek W, Lee CY (1990) Phenolic compounds and their changes in apples during maturation and cold storage. *J. Agric. Food Chem.*, 38, 945-948
- Butler LG, Rogler JC (1992) Biochemical mechanisms of the antinutritional effects of tannins. In: Ho CT, Lee CV, Huang MT (Eds.) *Phenolic compounds in food and their effects in health I*, American chemical society, Washington D.C., 298
- Cantarelli C, Brenna O, Giovanelli G, Rossi M (1989) Beverage stabilization through enzymatic removal of phenolics. *Food Biotechnology*, 3, 203-213
- Cao G, Alessio HM, Culter RG (1993) Oxygen-radical absorbance capacity assay for antioxidants. *Free Radical Biol Med* 14, 303-311
- Caroll KK, Guthrie N, So FV, Chambers AF (1998) Anticancer properties of flavonoids, with emphasis on citrus flavonoids. In: Rice-Evans CA, Packer L (Eds.) *Flavonoids in health and disease*. Marcel Dekker Inc., New York, 437-446
- Cemeroglu B, Velioglu S, Isik S (1994) Degradation kinetics of anthocyanins in sour cherry juice and concentrate. *J. Food Sci.*, 59, 1216-1218
- Cheng GW, Breen PJ (1991) Activity of phenylalanine ammonia lyase (PAL) and concentration of anthocyanins and phenolics in developing strawberry fruit. *J. Am. Soc. Hort. Sci.*, 116, 865-869
- Cheynier V, Osse C, Rigaud J (1988) Oxidation of Grape juice phenolic compounds in model solutions. *J. Food Sci.*, 53, 1729-1732
- Cheynier V, Ricardo Da Silva JM (1991) Oxidation of grape procyanidins in model solutions containing trans-caftaric acid and Polyphenol Oxidase. *J. Agric. Food Chem.*, 39, 1047-1049
- Clifford MN, Kellard B, Birch GG (1989) Characterisation of chlorogenic acids by simultaneous isomerisation and transesterification with tetramethylammonium hydroxide. *Food Chem.*, 33, 115-123
- Clifford MN (2000) Anthocyanins – nature, occurrence, and dietary burden. *J. Sci. Food Agric.*, 80, 1063-1072
- Clifford M.N. (2000a) Chlorogenic acids and other cinnamates – nature, occurrence, dietary burden, absorption and metabolism. *J. Sci. Food Agric.*, 80, 1033-1043
- Constenla DT, Lozano JA (1995) Effect of Ultrafiltration on concentrated Apple juice color and turbidity. *Int J. Food Sci. Technol.*, 30, 23-30
- Cook NC, Samman S (1996) Flavonoids – chemistry, metabolism, cardioprotective effects, and dietary sources. *Nutritional Biochemistry* 7, 66-76
- Couture R, Rouseff RL (1992) Debitting and deacidifying Sour Orange (*Citrus aurantium*) juice using neutral and anion exchange resins. *J. Food Sci.*, 57, 380-384
- Deigner HP, Wolf G (1994) Oxidativ modifiziertes LDL und seine mögliche Rolle in der Atherogenese. *Bioforum* Nr. 3/95, 38-87
- Dekker M, Verkerk R, Van den Sluis AA, Khokhar S, Jongen WMF (1999) Analysing the antioxidant activity of food products: Processing and matrix effects. *Toxicol. Vitro*, 13, 797-799

- De Rijke YB, Demacker PNM, Assen NA, Sloots LM, Katan MB, Stalenhoef AFH (1996) Red wine consumption does not affect oxidizability of low-density lipoprotein in volunteers. *Am. J. Clin. Nutr.*, 63, 329-334
- Dietrich H, Wucherpennig K, Maier G (1990) Lassen sich Apfelsäfte mit Polyphenoloxidasen gegen Nachtrübung stabilisieren? *Flüss. Obst*, 57, 68-73
- Dietrich H, Schäfer E (1991) Optimierung der Schönungsmitteldosage durch Titration mit dem Streaming-Current-Detector. *Mitt. Klosterneuburg*, 41, 160-167
- Dietrich H, Krueger E, Ritter G, Rheinberger A, Lengfeld B (1994) Beitrag zur Charakterisierung von Schwarzen Johannisbeersorten im Hinblick auf die Saft- und Nektarherstellung. Vortragsseminar der GDCH, AG Fruchtsäfte, Holzminden
- Dietrich H (1995) Die Polyphenole des Weins im Spannungsfeld technologischer und gesundheitlicher Aspekte. 4. Int. Symp. Innovationen in der Kellerwirtschaft, Intervitis, Stuttgart, 244-252
- Dietz R, Bitsch I (1995) Die relative Bioverfügbarkeit der Ascorbinsäure pflanzlicher Lebensmittel für den Menschen. in: *Vitamin und Zusatzstoffe in der Ernährung von Mensch und Tier*, Jena 1995, 284-287
- Disler PB, Lynch SR, Charlton RW, Torrance JD, Bothwell TH, Walker RB, Mayet F (1975) The effect of tea on iron absorption. *Gut*, 16, 193-200
- Dongowski G, Bock W (1987) Untersuchung zur Maischefermentierung von Schwarzen Johannisbeeren. *Lebensmittelindustrie*, 34, 129-133
- Dragsted LO, Knuthsen P, Nielsen SE, Strube M, Justesen U (1996) Polyphenols in Danish Foods and their possible health effects. In: *Proceeding of the Symposium on Polyphenols and Anthocyanins as Food colourants and Antioxidants*, Vienna, 15 Nov. 1996, 35-44
- Drdak M, Dacic P (1990) Changes of elderberry (*Sambucus nigra*) pigments during the production of pigment concentrates. *Acta Aliment.*, 19, 3
- Dunnick JE, Hailey JR (1992) Toxicity and carcinogenicity studies of quercetin, a natural component of food. *Fund. Appl. Toxicol.*, 19, 423-431
- Eder R, Wendelin S, Barna J (1990) Auftrennung der monomeren Rotweinanthocyane mittels Hochdruck-flüssigkeitschromatographie (HPLC) – Methodenvergleich und Vorstellung einer neuen Methode. *Mitt. Klosterneuburg*, 40, 68-75
- Eder R (1996a) Degradation kinetics of anthocyanins in concentrated juice of black currants (*Ribes nigrum* L.). *Polyphenols Communications 96 XVIII. International Conference on Polyphenols*, Bordeaux, France, July 15-18, 1996), Vol. 2
- Eder R (1996b) Pigments. In: *Food Analysis*, Nollet L Ed., Marcel Dekker, New York, 937-1014
- Eder R (1996c) Changes of anthocyanin content and profile during processing and storage of elderberry juice and nectar. In: *Proceeding of the Symposium on Polyphenols and Anthocyanins as Food colourants and Antioxidants*, Vienna, 15 Nov. 1996, 58-63
- Fischer E (1919) *Untersuchungen über Depside und Gerbstoffe*. Springer Verlag, Berlin
- Fogliano V, Verde V, Randazzo G, Ritieni A (1999) Method for measuring antioxidant activity and its application to monitoring the antioxidant capacity of wines. *J. Agric. Food Chem.*, 47, 1035-1040
- Forkmann G (1993) Biosynthesis of flavonoids. In: *Polyphenolic phenomena*, Scalbert A (Ed.), INRA Editions, Paris, 65-71
- Francia-Aricha EM, Guerra MT, Rivas-Gonzalo JC, Santos-Buelga C (1997) New anthocyanin pigments after condensation with flavanols. *J. Agric. Food Chem.*, 45, 2262-2266
- Frankel EN, German JB, Davis PA (1992) Headspace gas chromatography to determine human low-density oxidation. *Lipids*, 27, 1047-1051
- Frankel EN, Kanner J, German JB, Parks E, Kinsella JE (1993) Inhibition of oxidation of human low-density lipoprotein by phenolic substances in red wine. *Lancet*, 341, 454-457
- Fuhrman B, Lavy A, Aviram M (1995) Consumption of red wine with meals reduces the susceptibility of human plasma and low-density lipoprotein to lipid peroxidation. *Am. J. Clin. Nutr.*, 61, 549-554

- Fuleki T (1969) The anthocyanins of strawberry, rhubarb, radish and onion. *J. Food Sci.*, 34, 365
- Fussnegger B (1993) Quervernetztes Polyvinylpyrrolidon (PVPP) – Technologischer Hilfsstoff auch für die Fruchtsaferstellung. *Flüss. Obst*, 60, 263-266
- Gao L, Beveridge T, Reid CA (1997) Effects of processing and packaging conditions on haze formation in apple juices. *Food Sci. Technol.-Lebensm. Wiss.*, 30, 23-29
- Gao L, Girard B, Mazza G, Reynolds AG (1997) Changes in anthocyanins and color characteristics of Pinot Noir wines during different vinification processes. *J. Agric. Food Chem.*, 45, 2003-2008
- Gaspar J, Laires A, Monteiro M, Laureano O Ramos E, Rueff J (1993) Quercetin and the mutagenicity of wines. *Mutagenesis*, 8, 51-55
- Genovese DB, Elustondo MP, Lozano JE (1997) Color and cloud stabilization in cloudy apple juice by steam heating during crushing. *J. Food Sci.*, 62, 1171-1175
- Ghiselli A, Serafini M, Maiani G, Azzini E, Ferro-Luzzi A (1994) A fluorescence-based method for measuring total plasma antioxidant capability. *Free radical biology & medicine* 18, 29-36
- Girard B, Fukumoto LR (1999) Apple juice clarification using microfiltration and ultrafiltration polymeric membranes. *Food Sci. Technol.-Lebensm. Wiss.*, 32, 290-298
- Gokmen V, Borneman Z, Nijhuis HH (1998) Improved ultrafiltration for color reduction and stabilization of apple juice. *J. Food Sci.*, 63, 504-507
- Goldberg DM, Hahn SE, Parkes JG (1995) Beyond alcohol: Beverage consumption and cardiovascular mortality. *Clin. Chim. Acta*, 237, 155-187
- Goodenough PW, Kessel S, Lea AGH, Loeffler T (1983) Mono and diphenolase activity from fruit of *Malus Pumila*. *Phytochemistry*, 22, 359ff
- Graefe E.U., Veit M. (1999) Urinary metabolites of flavonoids and hydroxycinnamic acids in humans after application of a crude extract from *Equisetum arvense*. *Phytomed.*, 6, 239-246
- Gross GG (1992) Enzymes in the Biosynthesis of hydrolyzable tannins. In: Hemingway RW, Laks PE: *Plant Polyphenols*, Plenum Press, New York, 43-60
- Guo C, Cao G, Sofic E, Prior RL (1997) High-Performance Liquid Chromatography coupled with coulometric array detection of electroactive components in fruits and vegetables: relationship to oxygen radical absorbance capacity. *J. Agric. Food Chem.*, 45:1787-1796
- Guyot S, Marnet N, Laraba D, Sanoner P, Drilleau J-F (1998) Reversed-Phase HPLC following Thiolysis for Quantitative Estimation and Characterisation of the four main Classes of Phenolic Compounds in different Tissue Zones of a French Cider Apple Variety (*Malus domestica* Var. Kemerrien). *J. Agric. Food Chem.*, 46, 1698-1705
- Häkkinen S, Mykkänen H, Kärenlampi S, Törrönen R (1997) Phenolic profiles in Finnish berries. In: Armadò R, Andersson H, Bardócz S, Serra F (Eds.) *Polyphenols in food - Proceedings of a European COST concerted action scientific workshop, Aberdeen, Scotland*, 59-60
- Häkkinen SH, Kärenlampi SO, Heinonen IM, Mykkänen HM, Törrönen AR (1999) Content of the flavonols quercetin, myricetin, and kaempferol in 25 edible berries. *J. Agric. Food Chem.*, 47, 2274-2279
- Hallberg L, Rossander L (1982) Effect of different drinks on the absorption of non-heme iron from composite meals. *Hum. Nutr. Appl. Nutr.*, 36, 116-123
- Hamatschek J, Nagel B (1993) 100 Jahre Zentrifugenbau und der Einsatz des Dekanters zur Entsaftung von Früchten. *Flüss. Obst*, 60, 249-253
- Hammerstone JF, Lazarus SA, Mitchell AE, Rucker R, Schmitz HH (1999) Identification of procyanidins in cocoa and chocolate using high performance liquid chromatography/mass spectrometry. *J. Agric. Food Chem.*, 47, 490-496
- Harborne JB (1988) *The flavonoids*. Chapman & Hall, London
- Haslam E (1989) *Plant polyphenols – vegetable tannins revisited*. Cambridge University Press, Cambridge

- Hattori M, Kusumoto IT, Namba T, Ishigami T, Hara Y (1990) Effect of tea polyphenols on glucan synthesis by glucosyltransferase from *Streptococcus mutans*. *Chem. Pharm. Bull.*, 38, 717-720
- Heatherbell DA (1984) Fruchtsaftklärung und -schönung. *Confructa*, 28, 192-197
- Henn T, Stehle P (1998): Gesamtphenolgehalt und antioxidative Kapazität handelsüblicher Getränke. *Ernährungs-Umschau* 45, 308-313
- Heinonen MI, Lehtonen PJ, Hopia AI (1998a) Antioxidant activity of berry and fruit wines and liquors. *J. Agric. Food Chem.*, 46, 25-31
- Heinonen MI, Meyer AS, Frankel EN (1998b) Antioxidative activity of Berry phenolics on Human Low-Density Lipoprotein and Liposome Oxidation. *J. Agric. Food Chem.*, 46, 4107-4112
- Hemilä H (1992) Vitamin C and plasma cholesterol. *Food Sci. Nutr.*, 32, 33-57
- Hemingway RW (1989) In: Chemistry and significance of condensed tannins. Hemingway RW, Karchesy JJ (Eds.), Plenum Press, New York, 83-107
- Henning W (1981) Flavonolglykoside der Erdbeeren (*Fragaria x ananassa* Duch.), Himbeeren (*Rubus Ideaus* L.) und Brombeeren (*Rubus fruticosus* L.). *Z. Lebensm. Unters. Forsch.*, 173, 180-187
- Hernandez T, Ausin N, Bartolomé B, Bengoechea L, Estrella I, Gómez-Cordovés (1997) Variations in the phenolic composition of fruit juices with different treatments. *Z. Lebensm. Unters. Forsch.*, 204, 151-155
- Herrmann K (1973) Die phenolischen Inhaltsstoffe des Obstes. I. Bisherige Kenntnisse über Vorkommen, Gehalte sowie Veränderungen während des Fruchtwachstums. *Lebensm. Unters. Forsch.*, 151, 41-51
- Herrmann K (1976) *J. Food Technol.*, 11, 433
- Herrmann K (1992) Über die Gehalte der hauptsächlichsten Pflanzenphenole im Obst. *Flüss. Obst*, 59, 66-70
- Herrmann K (1993) Zur quantitativen Veränderung phenolischer Inhaltsstoffe bei der Gewinnung von Apfel- und Birnensäften. *Flüss. Obst*, 60, 7-10
- Herrmann K (1996a) Inhaltsstoffe der Himbeeren und Brombeeren. *Ind. Obst- Gemüseverw.*, 81, 186-194
- Herrmann K (1996b) Inhaltsstoffe der schwarzen Holunderbeeren. *Ind. Obst- Gemüseverw.*, 81, 394-397
- Herrmann K (1996c) Inhaltsstoffe der Erdbeeren. *Ind. Obst- Gemüseverw.*, 81, 154-161
- Herrmann K (1996d) Über die Inhaltsstoffe der Heidelbeeren und Preiselbeeren. *Ind. Obst- Gemüseverw.*, 82, 218-223
- Herrmann K (1996e) Inhaltsstoffe der Süß- und Sauerkirschen. *Ind. Obst- Gemüseverw.*, 81, 121-129
- Herrmann K (1997a) Inhaltsstoffe der Johannisbeeren. *Ind. Obst- Gemüseverw.*, 82, 14-20
- Herrmann K (1997b) Inhaltsstoffe der Stachelbeeren. *Ind. Obst- Gemüseverw.*, 82, 34-36
- Hertog MGL, Feskens EJM, Hollman PCH, Katan MB, Kromhout D (1993) Dietary antioxidant flavonoids and risk of coronary heart disease. The Zutphen Elderly Study. *Lancet*, 342, 1007-1011
- Hertog MGL (1998) Quercetin in foods, cardiovascular disease, and cancer. in: Rice-Evans CA, Packer L (Eds.) *Flavonoids in health and disease*. Marcel Dekker Inc., New York, 447-467
- Ho CT, Lee CV, Huang MT (Eds.) (1992) Phenolic compounds in food and their effects in health I+II, American chemical society, Washington D.C.
- Hoekstra JH, Vandenaker JHL, Ghooos YF, Hartemink R, Kneepkens CMF (1995) Fluid intake and industrial processing in apple juice induced chronic non-specific Diarrhea. *Arch. Dis. Child.*, 73, 126-130
- Hollman PCH, de Vries JHM, van Leeuwen SD, Mengelers MJB, Katan MB (1995) Absorption of dietary quercetin glycosides and quercetin in healthy ileostomy volunteers. *Am. J. Clin. Nutr.*, 62, 1276-1282
- Hollman PCH, Katan MB (1998) Absorption, Metabolism, and Bioavailability of flavonoids. Rice-Evans CA, Packer L (Eds.) *Flavonoids in health and disease*. Marcel Dekker Inc., New York, 483-522

- Hong V, Wrolstad RE (1990) Characterization of anthocyanin-containing colorants and fruit juices by HPLC/photodiode array detection. *J. Agric. Food Chem.*, 38, 698
- Huang SW, Frankel EN (1997) Antioxidant activity of tea catechin in different lipid systems. *J. Agric. Food Chem.*, 45, 3033-3038
- Hughes JA, West NX, Parker DM, Newcombe RG, Addy M (1998) Erosion of enamel: Compared to blackcurrant and orange drinks. *J. Dent. Res.*, 77, 1303-1307
- Hurrell RF (1990) The influence of polyphenol-containing beverages on iron absorption. *Bulletin de Liaison, Groupe Polyphénols, JIEP XIV, Straßburg*
- Hurrell RF, Reddy M, Cook JD (1997) Influence of polyphenol-containing beverages on iron absorption. In: Armadò R, Andersson H, Bardócz S, Serra F (Eds.) *Polyphenols in food - Proceedings of a European COST concerted action scientific workshop, Aberdeen, Scotland*, 169-172
- Ibarz A, Bellmunt S, Bota E (1992) Unterschiedliche nichtenzymatische Bräunungsprozesse während der Lagerung von Apfelsaftkonzentrat. *Flüss. Obst*, 59, 9-11
- Ikken Y, Morales P, Martinez A, Marin ML, Haza AI, Cambero MI (1999) Antimutagenic effect of fruit and vegetable extracts against N-Nitrosamines evaluated by the Ames test. *J. Agric. Food Chem.*, 47, 3257-3264
- Iversen CK (1999) Black Currant Nectar: Effect of Processing and Storage on Anthocyanin and Ascorbic Acid Content. *J. Food Sci.*, 64, 37-41
- Jacobson EA, Newmark H, Baptista J, Bruce WR (1983) A preliminary investigation of the metabolism of dietary phenolics in humans. *Nutr. Rep. Int.*, 28, 1409-1417
- Jialal I, Grundy SM (1992) Influence of antioxidant vitamins on LDL oxidation. *Ann. NY Acad. Sci.*, 669, 237-248
- Kanner J, Frankel EN, Granit R, German JB, Parks E, Kinsella JE (1994) Natural antioxidants in grapes and wines. *J Agric Food Chem*, 42, 64-69
- Kansanen L, Mykkänen H, Törrönen (1995) Flavonoids and extracts of strawberry and black currant are inhibitors of the carcinogen-activating enzyme CYP1A1 in vitro. In: Kumpulainen JT, Salonen JT (Eds.) *Natural antioxidants and food quality in atherosclerosis and cancer prevention. The Royal Society of Chemistry, Cambridge*, 386-388
- Kato Y, Ogino Y, Aoki T, Uchida K, Kawakishi S, Osawa T (1997) Phenolic antioxidants prevent peroxynitrite-derived collagen modification in vitro. *J. Agric. Food Chem.*, 45, 3004-3009
- Kelhöfer W (1908) Schweizerisches Landwirtschaftsdepartment (Hrsg.) Beiträge zur Kenntnis des Birnengerbstoffes und seiner Veränderung bei der Obstbereitung. *Jahrbuch der Schweiz* 22, Verlag K.J. Mutz, Bern, 341-409
- Koeppen BH, Herrmann K (1977) Flavonoid glycosids and hydroxycinnamic acid esters of blackcurrants (*Ribes nigrum* L.). *Z. Lebensm. Unters. Forsch.*, 164, 263-268
- Koga T, Moro K, Nakamori K, Yamakoshi J, Hosoyama H, Kataoka S, Ariga T (1999) Increase of antioxidative potential of rat plasma by oral administration of proanthocyanidin-rich extract from grape seeds. *J. Agric. Food Chem.*, 47, 1892-1897
- Kolb W (1989) Ästhetische und wirtschaftliche Aspekte des Streuobstanbaus. *Flüssig. Obst*, 56, 312-316
- Kondo Y, Ohnishi M, Kawaguchi M (1999) Detection of lipid peroxidation catalyzed by chelated iron and measurement of antioxidant activity in wine by a chemiluminescence analyzer. *J. Agric. Food Chem.*, 47, 1781-1785
- Korth A (1994) Fruchtsäfte verringern das Krebsrisiko. *Ernährungs-Umschau*, 41, 470-471
- Koumba-Koumba D, Macheix JJ (1982) Biosynthesis of hydroxycinnamic derivatives in apple fruit cell suspension culture. *Physiol. Vég.*, 20, 137
- Kühnau J (1976) The flavonoids: A class of semi-essential food components and their role in human nutrition- *World Rev. Nutr. Diet.*, 24, 117-120
- Kumpulainen JT, Salonen JT (1995) *Natural antioxidants and food quality in atherosclerosis and cancer prevention. The Royal Society of Chemistry, Cambridge*

- Kuo JM, Yeh DB, Sun Pan B (1999) Rapid photometric assay evaluating antioxidative activity in edible plant material. *J. Agric. Food Chem.*, 47, 3206-3209
- LaFlamme J, Weinand R (1993) Neue Erkenntnisse bei der Kombination von Membranfiltration und Adsorptionstechnik in der Fruchtsaftindustrie. *Flüss. Obst*, 60, 510-516
- Lancaster JE (1992) Regulation of skin color in apples. *Critical reviews in Plant Science*, 10, 487-502
- Lapidot T, Harel S, Granit R, Kanner J (1998) Bioavailability of red wine anthocyanins as detected in human urine. *J. Agric. Food Chem.*, 46, 4297-4302
- Lapidot T, Harel S, Akiri B, Granit R, Kanner J (1999) pH-dependent forms of red wine anthocyanins as antioxidants. 47, 67-70
- Laranjinha J, Vieira O, Madeira VMC, Almeida LM (1995) Two related phenolic antioxidants with opposite effects on vitamin E content in low density lipoproteins oxidized by ferrylmyoglobin: consumption vs. regeneration. *Arch. Biochem. Biophys.*, 323, 373-381
- Lazarus SA, Adamson GE, Hammerstone JF, Schmitz HH (1999) High-performance liquid chromatography/mass spectrometry analysis of proanthocyanidins in foods and beverages. *J. Agric. Food Chem.*, 47, 3693-3701
- Lea AGH, Timberlake CF (1974) The phenolics of cider: 1. Procyanidins. *J. Sci. Food Agric.*, 25, 1537-1545
- Lea AGH, Timberlake CF (1978) The phenolics of cider: Effect of processing conditions. *J. Sci. Food Agric.*, 29, 484-492
- Lea AGH, Arnold GM (1978) The phenolics of ciders: Bitterness and astringency. *J. Sci. Food Agric.*, 29, 478-483
- Lea AGH (1979) HPLC of cider procyanidins. *J. Sci. Food Agric.*, 29, 833-838
- Lea AGH (1984) Farb- und Gerbstoffe in englischen Mostäpfeln. *Flüss. Obst*, 51, 356-361
- Lea AGH (1992) Flavor, color and stability in fruit products: the effect of polyphenols. In: Hemingway RW, Laks PE: *Plant Polyphenols*, Plenum Press, New York, 827-847
- Leake DS (1998) Effect of flavonoids on the oxidation of low-density lipoprotein. In: Rice-Evans CA, Packer L (Eds.) *Flavonoids in health and disease*. Marcel Dekker Inc., New York, 253-276
- Lee HS, Wrolstad RE (1988) Apple Juice Composition: Sugar, Nonvolatile Acids and Phenolic Profiles. *J. Assoc. Off. Anal. Chem.*, 71, 789-794
- Lee MJ, Wang ZY, Li H, Chen L, Sun Y, Gobbo S, Balentine DA, Yang CS (1995) Analysis of plasma and urinary tea polyphenols in human subjects. *Cancer Epidemiol. Biomark. Prev.*, 4, 393-399
- Le Lous J, Majoie B, Morinière JL, Wulfert E (1975) Etude des flavonoides de *Ribes nigrum*. *Annales pharmac. franc.*, 33, 393-399
- Liao H, Cai Y, Haslam R (1992) Polyphenol Interactions. Anthocyanins: Co-Pigmentation and Colour Changes in Red Wines. *J. Agric. Food Chem.*, 40, 299-305
- Lin YL, Cheng CY, Lin YP, Lau YW, Juan IM, Lin JK (1998) Hypolipidemic effect of green tea leaves through induction of antioxidant and phase II enzymes including Superoxid Dismutase, Catalase, and Glutathione S-Transferase in Rats. *J. Agric. Food Chem.*, 46, 1893-1899
- Lister CE, Lancaster JE, Sutton KH (1994) Developmental changes in the concentration and composition of flavonoids in skin of a red and a green apple cultivar. *J. Sci. Food Agric.*, 64,
- Lozano JF, Ibarz A (1997) Colour changes in concentrated fruit pulp during heating at high temperatures. *J. Food Eng.*, 31, 365-373
- Maas JL, Wang SY, Galletta GJ (1991) Evaluation of strawberry cultivars for ellagic acid content. *Hort. Sci.*, 26, 66-68
- MacGregor JT (1984) Genetic and carcinogenic effects of plant flavonoids. An overview. *Adv. Exp. Med. Biol.*, 177, 497-526
- Macheix JJ, Fleuriet A, Billot J (1990) *Fruit Phenolics*. CRC Press, Boca Ranton, FL

- Maier G (1994) Gewinnung , Reinigung und Einsatz eines mikrobiellen Laccasepräparates zur enzymatischen Stabilisierung von Apfelsäften sowie Farbaufhellung von Konzentraten. Dissertation Universität Giessen
- Mangas JJ, Suarez B, Picinelli A, Moreno J, Blanco D (1997) Differentiation by phenolic profile of apple juices prepared according to two membrane techniques. *J. Agric. Food Chem.*, 45, 4777-4784
- Marco GJ (1968) A rapid method for evaluation of antioxidants. *J Am Oil Chem* 45, 594-598
- Masuda T, Yonemori S, Oyama Y, Takeda Y, Tanaka T, Andoh T, Shinohara A, Nakata M (1999) Evaluation of the antioxidant activity of environmental plants: Activity of the leaf extracts from seashore plants. *J. Agric. Food Chem.*, 47, 1749-1754
- Matern U, Grimmig B (1993) Polyphenols in plant pathology. In: Scalbert A (Ed.) Polyphenolic Phenomena, INRA Editions, Paris, 143-147
- Matsuo N, Yamada K, Shoji K, Mori M, Sugano M (1997) Effect of tea polyphenols on histamine release from rat basophilic leukemia (RBL-2H3) cells: the structure-inhibitory activity relationship. *Allergy*, 52, 58-64
- Maxwell S, Cruickshank A, Thorpe G (1994) Red wine and antioxidative activity in serum. *Lancet*, 344, 193-194
- Maxwell S, Thorpe G (1996) Tea flavonoids have little short term impact on serum antioxidant activity. (letter). *Biochem. J.*, 313, 229
- Mayr U, Treutter D (1996) Vorkommen und Gehalte von Flavanolen in Apfelfrüchten und – säften. Deutsche Gesellschaft für Qualitätssicherung (pflanzliche Ernährung) XXXI. Vortragstagung: Die Qualität pflanzlicher Nahrungsmittel als Grundlage richtiger Ernährung, Kiel 1996, 113-119
- Mayr U, Treutter D, Feucht W (1996) Phenolische Inhaltsstoffe des Apfels. *Erwerbsobstbau*, 38, 8-12
- Mazza G, Brouillard R (1987) Recent developments in the stabilization of anthocyanins in food products. *Food Chem.*, 25, 207
- Mazza G, Brouillard R (1990) The mechanism of co-pigmentation of anthocyanins in aqueous solution. *Phytochemistry*, 29, 1097
- Mazza G, Velioglu YS (1992) Anthocyanins and other phenolic compounds in fruits of red-flesh apples. *Food Chem.*, 43, 113ff.
- Mazza G, Miniati E (1993) „Anthocyanins in fruit, vegetables, and grains.“, CRC Press, Boca Raton
- Meyer AS, Yi OS, Pearson DA, Waterhouse AL, Frankel EN (1997) Inhibition of human low-density lipoprotein oxidation in relation to composition of phenolic antioxidants in grapes (*Vitis Vinifera*). *J. Agric. Food Chem.*, 45, 1638-1643
- Miller NJ, Rice-Evans C, Davis MJ (1993): A novel method for measuring antioxidant capacity and its application to monitoring the antioxidant status in premature neonates, *Clin. Sci.* 84, 407-412
- Miller NJ, Diplock AT, Rice-Evans CA (1995) Evaluation of the Total Antioxidative Activity as a marker of the deterioration of apple juice on storage. *J. Agric. Food Chem.*, 43, 1794-1801
- Miller NJ, Sampson J, Candeias L, Bramley P, Rice-Evans CA (1996) Antioxidant activities of carotenes and xanthophylls. *FEBS Letters*, 384, 240-242
- Miller NJ, Rice-Evans CA (1997) The relative contributions of ascorbic acid and phenolic antioxidants to the total antioxidant activity of orange and apple fruit juices and black currant drink. *Food Chem*, 59, 1-7
- Miller NJ, Rice-Evans CA (1997a) Factors influencing the antioxidant activity determined the ABTS<sup>+</sup> radical cation assay. *Free Rad. Res.*, 22, 195-199
- Miyake Y, Yamamoto K, Morimitsu Y, Osawa T (1997) Isolation of C-glucosylflavone from lemon peel and antioxidative activity of flavonoid compounds in lemon fruit. *J. Agric. Food Chem.*, 45, 4619-4623
- Miyazawa M, Sakano K, Nakamura SI, Kosaka H (1999) Antimutagenic activity of isoflavones from soybean seeds (*Glycine max* Merrill). *J. Agric. Food Chem.*, 47, 1346-1349
- Miyazawa T, Nakagawa K, Kudo M, Muraishi K, Someya K (1999a) Direct intestinal absorption of red fruit anthocyanins, Cyanidin-3-glucoside and Cyanidin-3,5-diglucoside, into rats and humans. *J. Agric. Food Chem.*, 47, 1083-1091



- Monti SM, Ritieni A, Graziani G, Randazzo G, Mannina L, Segre AL, Fogliano V (1999) LC/MS Analysis and Antioxidative Efficiency of Maillard Reaction Products from a Lactose-Lysine Model System. *J. Agric. Food Chem.*, 47, 1506-1513
- Morton AD (1968) The phenolic compounds of blackcurrant juice and their protective effect of ascorbic acid. *J. Food Technol.*, 3, 269-275
- Mosel HD, Herrmann K (1974) Die phenolischen Inhaltsstoffe des Obstes. IV. Die phenolischen Inhaltsstoffe der Brombeeren und Himbeeren und deren Veränderungen während Wachstum und Reife der Früchte. *Z. Lebensm. Unters. Forsch.*, 154, 324-327
- Moutounet M, Rigaud C, Souquet JM, Cheynier V (1990) Influence de quelques parametres sur l'oxydation des mouts de raisin. Interpretations technologiques. *Reveu des Œnologues*, 124, 32-38
- Mukai K, Oka W, Egawa Y, Nagaoka S, Terao J (1996) A kinetic study of the free-radical scavenging action of flavonoids in aqueous triton x-100 micellar solution. Proceedings of the International symposium in natural antioxidants. In: Packer L, Traber MG, Xin W (Eds.) *Molecular mechanism and health effects*. AOCS Press, 557-568
- Muldoon MF, Kritchevsky SB (1996) Flavonoids and heart disease. Evidence of benefits still fragmentary. *Br. Med. J.*, 312, 458-459
- Nagel CW, Wulf LW (1979) Changes in the anthocyanins, flavonoids and hydroxycinnamic acid esters during fermentation and aging of Merlot and Cabernet Sauvignon. *Am. J. Enol. Vitic.*, 30, 111-116
- Nagel CW, Schobinger U (1985) Untersuchungen über die Bildung von Trübungen in Apfel- und Birnensaftkonzentraten nach vorheriger Ultrafiltration. *Confructa*, 29, 16-26
- Nagel B (1992) Kontinuierliche Herstellung von hochwertigen naturtrüben Apfelsäften. *Flüss. Obst*, 59, 6-8
- Nanjo F, Goto K, Seto R, Suzuki M, Sakai M, Hara Y (1996) Scavenging effects of tea catechins and their derivatives on 1,1-diphenyl-2-picrylhydrazyl radical. *Free Radical Biol. Med.*, 21, 895-902
- Natella F, Nardini M, Di Felice M, Scaccini C (1999) Benzoic and cinnamic acid derivatives as antioxidants: Structure-activity relation. *J. Agric. Food Chem.*, 47, 1493-1459
- Negri E, La Vecchia C, Franceschi S, D'Avanzo B, Parazzini F (1991) Vegetable consumption and cancer risk. *Int. J. Cancer*, 48, 350-354
- Netzel M, Janssen M, Böhm V, Bitsch R, Bitsch I, Rechner A, Patz CD, Dietrich H (1999) Urinexkretion von Anthocyanen beim Menschen nach Genuss von schwarzem Johannisbeersaft. *Proc. Germ. Nutr. Soc.*, Vol 1, 5
- Netzel M, Strass G, Janssen M, Herbst M, Bitsch I, Bitsch R, Böhm V, Rechner A, Dietrich H (1999a) Untersuchung zur Bioverfügbarkeit von antioxidativ wirksamen Anthocyanen aus Holunder- und schwarzen Johannisbeeren. 5. Werkstattbericht Justus-Liebig-Universität Giessen, 103-104
- Netzel M, Carle E, Kessenheimer B, Strass G, Bitsch I, Möhm V, Bitsch R (1999b) Effect of apple juice intake on antioxidant status in humans. Proceedings 4<sup>th</sup> Karlsruhe Nutrition Symposium
- Nicolas JJ (1994) Enzymatic browning reactions in apple and apple products. *Food Sci. Nutr.*, 34, 109-157
- Ohmori Y, Ito M, Kishi M, Mizutani H, Katada T, Konishi H (1995) Antiallergic constituents from oolong tea stem. *Biol. Pharm. Bull.*, 18, 683-686
- Oleszek W, Lee YC, Jaworski AW, Price KR (1988) Identification of some phenolic compounds in apples. *J. Agric. Food Chem.*, 36, 430-432
- Paganga G, Rice-Evans CA (1997) The identification of flavonoids as glycosides in human plasma. *FEBS Letters*, 401, 78-82
- Perchellet JP, Gali HU, Perchellet EM, Klish DS, Armbrust AD (1992) Antitumor-promoting activities of tannic acid, ellagic acid, and several gallic acid derivatives in mouse skin. In: Hemingway RW, Laks PE: *Plant Polyphenols*, Plenum Press, New York, 783-801
- Pérez-Illarbe FJ, Hernández T, Estrella I (1991) Phenolic compounds in apples: varietal differences. *Z. Lebensm. Unters. Forsch.*, 192, 551-554

- Pérez-Illzarbe FJ, Martínez V, Hernández T, Estrella I (1992) Liquid Chromatographic Determination of apple pulp procyanidins. *J. Liquid Chromatogr.*, 15, 637-646
- Philipp A, Pircher A, Schrober J, Yoav Y (1996) Die Holunderbeere (*Sambucus nigra* L.) als Rohstoff für die Lebensmittel- und Pharmaindustrie. In: Proceeding of the Symposium on Polyphenols and Anthocyanins as Food colourants and Antioxidants, Vienna, 15 Nov. 1996, 45-57
- Picinelli A, Suárez B, Mangas JJ (1997) Analysis of polyphenols in apple products. *Z. Lebensm. Unters. Forsch. A*, 204, 48-51
- Pischetsrieder M, Rinaldi F, Gross U, Severin T (1998) Assessment of the Antioxidative and prooxydative Activities of Two Aminoreductones Formed during the Maillard Reaction: Effects on the Oxidation of Beta-Carotene, N-Acetylhistidine, and cis-Alkenes. *J. Agric. Food Chem.*, 46, 2945-2950
- Rankin SM, Hoult JRS, Leaks DS (1988) Effects of flavonoids on the oxidative modification of low density lipoproteins by macrophages. *Br. J. Pharmacol.*, 95, 727
- Rath M (1992) Lipoprotein-a reduction by ascorbate. *J. Orthomol. Med.*, 7, 81-82
- Re R, Pellegrini N, Proteggente A, Pannala A, Yang M, Rice-Evans CA (1999) Antioxidant activity applying an improved ABTS radical cation decolorization assay. *Free Rad. Biol. Med.*, 26, 1231-1237
- Rechner A, Patz CD, Dietrich H (1997): Beitrag zur Bewertung der antioxidativen Kapazität verschiedener Getränke. *Flüss. Obst*, 64, 62-65
- Renaud S, de Lorgeril M (1992) Wine, alcohol, platelets and the French paradox on coronary heart disease. *The Lancet*, 339, 1523-1526
- Rentschler H., Tanner H. (1976) Anleitung für die Getränke-Analyse., Eidg. Forschungsanstalt, Wädenswill
- Rhodes MJC (1998) Physiological roles of phenolic compounds in plants and their interaction with microorganisms and humans. In: Vercauteren J, Cheze C, Triaud J (Eds.) Polyphenols 96, Bordeaux, July 15-18, Editions INRA, Paris, 12-30
- Rice-Evans CA, Miller NJ (1995) Antioxidants – the case for fruit and vegetables in the diet. *Brit. Food J.*, 97, 35-40
- Rice-Evans CA, Miller NJ, Paganga G (1996) Structure-Antioxidant Activity Relationship of Flavonoids and Phenolic Acids. *Free Rad. Biol. Med.*, 20, 933-956
- Rice-Evans CA, Miller NJ, Paganga G (1997) Antioxidant properties of phenolic compounds. *Trends in plant science* 2, 152-159
- Rice-Evans CA, Packer L (Eds.) (1998) Flavonoids in health and disease. Marcel Dekker Inc., New York
- Rice-Evans CA, Miller NJ (1998a) Structure-antioxidant activity relationships. Rice-Evans CA, Packer L (Eds.) Flavonoids in health and disease. Marcel Dekker Inc., New York, 199-219
- Risch B, Herrmann K (1988) Die Gehalte an Hydroxyzimtsäure-Verbindungen und Catechinen in Kern- und Steinobst. *Z. Lebensm. Unters. Forsch.*, 186, 225-230
- Ritter G (1994) Die Bedeutung der phenolischen Saft- und Weinhaltstoffe während der Verarbeitung von Äpfeln, Speierling und weißen Trauben – Der Einfluß moderner Verfahrenstechnologie auf die Qualität des Endproduktes. Dissertation Universität Giessen
- Ritter G, Dietrich H (1996) Der Einfluß moderner Verfahrenstechniken auf den Gehalt wichtiger Pflanzenphenole im Apfelsaft. *Flüss. Obst*, 63, 256-263
- Rommel A, Wrolstad RE, Heatherbell DA (1992) Blackberry juice and wine: processing and storage effects on anthocyanin composition, color and appearance. *J. Food Sci.*, 57, 385-410
- Rusznayk S, Szent-György A (1936) Vitamin P: flavonols as vitamins. *Nature*, 27ff
- Saint-Cricq de Gaulejac N, Provost C, Vivas N (1999) Comparative study of polyphenol scavenging activities assessed by different methods. *J. Agric. Food Chem.*, 47, 425-431
- Samejima K, Kanazawa K, Ashida H, Danno GI (1998) Bay laurel contains kaempferol coumarate acting against the dietary carcinogen 3-Amino-1-methyl-5H-pyrido[4,3-b]indol (Trp-P-2). *J. Agric. Food Chem.*, 46, 4864-4868

- Santos-Buelga C, Scalbert A (2000) Proanthocyanidins and tannin-like compounds – nature, occurrence, dietary intake and effects on nutrition and health. *J. Sci. Food Agric.*, 80, 1094-1117
- Sapers GM, Hicks KB, Burgher AM, Hargrave DL, Sondey SM, Bilyk A (1986) Anthocyanin pattern in ripening thornless blackberries. *J. Am. Soc. Hortic. Sci.*, 111, 945ff
- Satué-Gracia MT, Heinonen M, Frankel EN (1997) Anthocyanins as antioxidants on human low-density lipoprotein and lecithin-liposome system. *J. Agric. Food Chem.*, 45, 3362-3367
- Scalbert A (1991) Antimicrobial properties of tannins. *Phytochemistry*, 30, 3875-3883
- Scheline R.R. (1991) Metabolism of acids, lactones, and esters. In: *CRC Handbook of mammalian metabolism of plant compounds*. CRC Press, Boca Ranton
- Schols HA, in't Veld PH, van Deelen W, Voragen AGJ (1991) The effect of the manufacturing method on the characteristics of apple juice. *Z. Lebensm. Unters. Forsch.*, 192, 142-148
- Schuster B, Herrmann K (1985) Hydroxybenzoic and hydroxycinnamic acid derivatives in soft fruits. *Phytochemistry*, 24, 2761-2764
- Serafini M, Ghiselli A, Ferro-Luzzi A (1996) In vivo antioxidant effect of green and black tea in man. *Eur. J. Clin. Nutr.*, 50, 28-32
- Sies H (1986) Biochemie des oxidativen Stress. *Angew. Chem.*, 98, 1061-1075
- Sies H (Ed.) (1991) *Oxidative stress: Oxidants and antioxidants*. Academic Press, London
- Siess MH, Le Bon AM, Vanivenc-Lavier MC, Martel P, Suschetet M (1997) Potential role of flavonoids in cancer prevention. In: Armadò R, Andersson H, Bardócz S, Serra F (Eds.) *Polyphenols in food - Proceedings of a European COST concerted action scientific workshop*, Aberdeen, Scotland, 105-112
- Singleton VL, Rossi JA (1965) Colorimetry of total phenolics with with phosphomolybdic-phosphotungstic acid reagent. *Am. J. Enol. Vit.*, 37, 144-158
- Skrede G, Wrolstad RE, Lea P, Enersen G (1992) Color stability of strawberry and black currant syrups. *J. Food Sci.*, 57, 172-177
- So FV, Guthrie N, Moussa M, Carroll KK (1996) Inhibition of human breast cancer cell proliferation and delay of mammary tumorigenesis by flavonoids and citrus juice. *Nutr. Cancer*, 26, 167-181
- Soleas GJ, Tomlinson G, Diamandis EP, Goldberg DM (1997) Relative contributions of polyphenolic constituents to the antioxidant status of wines: development of a predictive model. *J Agric Food Chem* 45, 3995-4003
- Spanos GA, Wrolstad RE (1990a) Influence of Processing and Storage on the Phenolic Composition of Thompson Seedless Grape Juice. *J. Agric. Food Chem.*, 38, 1565-1571
- Spanos GA, Wrolstad RE, Heatherbell DA (1990) Influence of Processing and Storage on the Phenolic Composition of Apple Juice. *J. Agric. Food Chem.*, 38, 1572-1579
- Spanos GA, Wrolstad RE (1990b) Influence of variety, maturity, processing, and storage on the phenolic composition of pear juice. *J. Agric. Food Chem.*, 38, 817-824
- Spencer JPE, Chaudry F, Pannala AS, Srail SK, Debnam E, Rice-Evans CA (2000) Decomposition of cocoa procyanidins in the gastric milieu. *Biochem. Biophys. Res. Comm.*, 272, 236-241
- Steinberg D, Parthasarathy S, Carew TE, Khoo JC, Witztum JL (1989) Beyond cholesterol: modifications of low-density lipoprotein that increase its atherogenicity. *N. Engl. J. Med.*, 320, 915-924
- Stöhr H, Herrmann K (1975a) Die phenolischen Inhaltsstoffe des Obstes. VI. Die phenolischen Inhaltsstoffe der Johannisbeeren, Stachelbeeren und Kulturheidelbeeren. Veränderung der Phenolsäuren und Catechine während Wachstum und Reife von Schwarzen Johannisbeeren. *Z. Lebensm. Unters. Forsch.*, 159, 31-37
- Stöhr H, Herrmann K (1975b) Die phenolischen Inhaltsstoffe des Obst. V. Die phenolischen Inhaltsstoffe der Erdbeeren und deren Veränderungen während Wachstum und Reife der Früchte. *Z. Lebensm. Unters. Forsch.*, 158, 341-348
- Suschetet M, Siess MH, Le Bon AM, Canivenc-Lavier MC (1998) Anticarcinogenic properties of some flavonoids. In: Vercauteren J, Chèze C, Triaud J (Eds.) *Polyphenols 96*, Bordeaux, July 15-18 1996, Edition INRA, Paris, 165-204

- Taylor J (1989) Color stability of blackcurrant (*Rubus nigrum* L.) juice. *J. Sci. Food Agric.*, 49, 487
- Terao J, Piskula M, Yao Q (1994) Protective effect of Epicatechin, Epicatechin gallate, and quercetin on lipid peroxidation in phospholipid bilayers. *Arch. Biochem. Biophys.*, 308, 278-284
- Terao J, Piskula MK (1998) Flavonoids as inhibitors of lipid peroxidation in membranes. In: Rice-Evans CA, Packer L (Eds.) *Flavonoids in health and disease*. Marcel Dekker Inc., New York, 277-293
- Thompson RS, Jaques D, Haslam E, Tanner RJN (1972) Plant proanthocyanidins. I. Introduction: the isolation, structure, and distribution in nature of plant procyanidins. *J. Chem. Soc. Perkin Transact. I*, 1387-1399
- Torre LC, Barritt BH (1977) Quantitative evaluation of *Rubus* fruit anthocyanin pigments. *J. Food Sci.*, 42, 488-490
- Tsukui A, Suzuki A, Hayashi K, Nishiyama R, Ohara N (1996) Change in anthocyanin pigments during alcohol fermentation of a commercial available apple juice. *J. Jpn. Soc. Food Sci. Technol.*, 43, 1128-1132
- Tubaro F, Micossi E, Ursini F (1996) The antioxidant capacity of complex mixtures by kinetic analysis of crocin bleaching inhibition. *J. Am. Oil Chem. Soc.*, 73, 173-179
- Unno T, Kondo K, Itakura H, Takeo T (1996) Analysis of (-)-Epigallocatechin gallate in human serum obtained after ingesting green tea. *Biosci. Biotech. Biochem.*, 60, 2066-2068
- Unten L, Koketsu M, Kim M (1997) Antidiscoloring activity of green tea polyphenols on  $\beta$ -carotene. *J. Agric. Food Chem.*, 45, 2009-2012
- Vinson JA, Dabbagh YA, Serry MM, Jang J (1995) Plant flavonoids, especially tea flavonols, are powerful antioxidants using an in vitro oxidation model for heart disease. *J. Agric. Food Chem.*, 43, 2800-2802
- Vinson JA, Jang J, Yang J, Dabbagh Y, Liang X, Serry M, Proch J, Cai S (1999) Vitamins and especially flavonoids in common beverages are powerful in vitro antioxidants which enrich lower density lipoproteins and increase their oxidative resistance after ex vivo spiking in human plasma. *J. Agric. Food Chem.*, 47, 2502-2504
- Vogt K (1987) Neue Möglichkeiten in der Aufarbeitung von trüben Apfelsaftkonzentraten – Ultrafiltration und PVPP-Stabilisierung/-Entfärbung. *Flüss. Obst*, 54, 425-429
- Wagner H (1989) Search for new plant constituents with potential antiphlogistic and antiallergic activity. *Planta Med.*, 55, 235-241
- Wald B, Galensa R (1989) Nachweis von Fruchtsaftmanipulationen bei Apfel- und Birnensaft. *Z. Lebensm. Unters. Forsch.*, 188, 107-114
- Walker JRL (1964) Studies on the enzymic browning of apples. II. Properties of apple polyphenoloxidase. *Aust. J. Biol. Sci.*, 7, 360
- West NX, Hughes JA, Parker DM, Newcombe RG, Addy M (1999) Development and evaluation of low erosive blackcurrant juice drink. *J. Dent.*, 27, 341-350
- Whitehead TP, Thorpe GHG, Maxwell SRJ (1992) Enhanced chemiluminescent assay for antioxidant capacity in biological fluids. *Anal. Chim. Acta*, 266, 265-277
- Whitehead TP, Robinson D, Allaway S, Syms J, Hale A (1995) Effect of red wine ingestion on the antioxidative capacity of serum. *Clin. Chem.*, 41, 32-35
- Whiting GC, Coggins RA (1975) Estimation of the monomeric phenolics in ciders. *J. Sci. Food Agric.*, 26, 1833-1838
- Wildanger W, Herrmann K (1973) Die phenolischen Inhaltsstoffe des Obstes. II. Die Flavonole des Obstes. *Z. Lebensm. Unters. Forsch.*, 151, 103-108
- Wilska-Jeszka J, Podsêdek A (1996) Proanthocyanidins properties and occurrence in fruits. In: *Proceeding of the Symposium on Polyphenols and Anthocyanins as Food colourants and Antioxidants*, Vienna, 15 Nov. 1996, 87-91
- Wilska-Jeszka J, Krozuchowska A (1996) Anthocyanins and chlorogenic acid copigmentation – influence on the colour of strawberry and chokeberry juices. *Z. Lebensm. Unters. Forsch.*, 203, 38-42

- Wrolstad RE, Skrede G, Lea P, Enersen G (1990) Influence of sugar on anthocyanin pigment stability in frozen strawberries. *J. Food Sci.*, 55, 1064-1065
- Wucherpfennig K, Dietrich H, Scholz R (1985) Einfluss der Enzymierung und Schönung von Apfelsaft auf die Fluxrate in Ultrafiltrationsanlagen. *Flüss. Obst*, 52, 324-330
- Wucherpfennig K, Hahn P, Semmler G (Eds.) (1990) *Handbuch Alkoholfreie Getränke: Technologie, Recht, Physiologie*. Behr's Verlag, Hamburg
- Yoah Y (1996) Black elderberry as a source in food- and pharma industry. In: *Proceeding of the Symposium on Polyphenols and Anthocyanins as Food colourants and Antioxidants*, Vienna, 15 Nov. 1996, 45-57
- Youdim KA, Martin A, Joseph JA (2000) Incorporation of the elderberry anthocyanins by endothelial cells increases protection against oxidative stress. *Free Rad. Biol. Med.*, 29, 51-60
- Young JF, Nielsen SE, Haraldsdottir J, Daneshvar B, Lauridsen ST, Knuthsen P, Crozier A, Sandström B, Dragsted LO (1999) Effect of fruit juice intake on urinary quercetin excretion and biomarkers of antioxidative status. *Am. J. Clin. Nutr.*, 69, 87-94
- Zeyuan D, Bingyin T, Xiaolin L, Jinming H, Yifeng C (1998) Effect of green tea and black tea on the blood glucose, the triglycerides, and antioxidation in aged rats. *J. Agric. Food Chem.*, 46, 3875-3878
- Zhu QY, Zhang A, Tsang D, Huang Y, Chen ZY (1997) Stability of green tea catechins. *J. Agric. Food Chem.*, 45, 4624-4628
- Zarate-Rodriguez E, Ortega-Rivas E, Barbosa-Canovas GV (2000) Quality changes in apple juice as related to nonthermal processing. *J. Food Qual.*, 23, 337-349
- Zimmer E (1996) *Zusammensetzung, physikalische Eigenschaften und Entstehung der Trubpartikel in naturtrüben Apfelsäften sowie Einstellung von Herstellungstechnologie und Rohware auf Trübung und Trübungsstabilität*, Dissertation Universität Giessen