Supplementary Table S2. Articles Published by Dr. Helmut Sies Cited at Least 100 Times

	Publication	*Total citations as of 6/30/2014*
1.	Chance B, Sies H, and Boveris A. Hydroperoxide metabolism in mammalian organs. *Physiol Rev* 59: 527–605, 1979.	5151
2.	Di Mascio P, Kaiser S, and Sies H. Lycopene as the most efficient biological carotenoid singlet oxygen quencher. *Arch Biochem Biophys* 274: 532–538, 1989.	1725
3.	Sies H. Oxidative stress: oxidants and antioxidants. *Exp Physiol* 82: 291–295, 1997.	1590
4.	Sies H. Strategies of antioxidant defense. *Eur J Biochem* 215: 213–219, 1993. (Review)	1491
5.	Akerboom TP and Sies H. Assay of glutathione, glutathione disulfide, and glutathione mixed disulfides in biological samples. *Methods Enzymol* 77: 373–382, 1981.	1267
6.	Sies H. Glutathione and its role in cellular functions. *Free Radic Biol Med* 27: 916–921, 1999.	1070
7.	Sies H. Biochemistry of oxidative stress. *Angew Chem Int Ed* 25: 1058–1071, 1986.	977
8.	Sies H. Oxidative stress: from basic research to clinical application. *Am J Med* 91: 31S-38S, 1991.	890
9.	Sies H and Stahl W. Vitamins E and C, beta-carotene, and other carotenoids as antioxidants. *Am J Clin Nutr* 62: 1315S-1321S, 1995.	886
10.	Mugesh G, du Mont WW, and Sies H. Chemistry of biologically important synthetic organoselenium compounds. *Chem Rev* 101: 2125–2179, 2001.	818
11.	Sies H, Stahl W, and Sundquist AR. Antioxidant functions of vitamins. Vitamins E and C, beta-carotene, and other carotenoids. *Ann N Y Acad Sci* 669: 7–20, 1992.	673
12.	Di Mascio P, Murphy ME, and Sies H. Antioxidant defense systems: the role of carotenoids, tocopherols, and thiols. *Am J Clin Nutr* 53: 194S–200S, 1991.	671
13.	Kappus H and Sies H. Toxic drug effects associated with oxygen metabolism: redox cycling and lipid peroxidation. *Experientia* 37: 1233–1241, 1981.	612
14.	Muller A, Cadenas E, Graf P, and Sies H. A novel biologically active seleno-organic compound—I. Glutathione peroxidase-like activity in vitro and antioxidant capacity of PZ 51 (Ebselen). *Biochem Pharmacol* 33: 3235–3239, 1984.	583
15.	Stahl W and Sies H. Uptake of lycopene and its geometrical isomers is greater from heat-processed than from unprocessed tomato juice in humans. *J Nutr* 122: 2161–2166, 1992.	563
16.	Stahl W and Sies H. Lycopene: a biologically important carotenoid for humans? *Arch Biochem Biophys* 336: 1–9, 1996.	541
17.	Gartner C, Stahl W, and Sies H. Lycopene is more bioavailable from tomato paste than from fresh tomatoes. *Am J Clin Nutr* 66: 116–122, 1997.	524
18.	Steffen Y, Schewe T, and Sies H. (-)-Epicatechin elevates nitric oxide in endothelial cells via inhibition of NADPH oxidase. *Biochem Biophys Res Commun* 359: 828–833, 2007.	520
19.	Sies H. What is oxidative stress?: Springer, 2000.	451
20.	Traber MG and Sies H. Vitamin E in humans: demand and delivery. *Annu Rev Nutr* 16: 321–347, 1996.	434
21.	Sies H, Sharov VS, Klotz LO, and Briviba K. Glutathione peroxidase protects against peroxynitrite-mediated oxidations. A new function for selenoproteins as peroxynitrite reductase. *J Biol Chem* 272: 27812–27817, 1997.	409
22.	Stahl W and Sies H. Bioactivity and protective effects of natural carotenoids. *Biochim Biophys Acta* 1740: 101–107, 2005.	374
23.	Jacob C, Giles GI, Giles NM, and Sies H. Sulfur and selenium: the role of oxidation state in protein structure and function. *Angew Chem Int Ed Engl* 42: 4742–4758, 2003.	372

(*continued*)

Table S2. (Continued)

	Publication	Total citations as of 6/30/2014
24.	Brigelius R, Muckel C, Akerboom TP, and Sies H. Identification and quantitation of glutathione in hepatic protein mixed disulfides and its relationship to glutathione disulfide. *Biochem Pharmacol* 32: 2529–2534, 1983.	351
25.	Wefers H and Sies H. The protection by ascorbate and glutathione against microsomal lipid peroxidation is dependent on vitamin E. *Eur J Biochem* 174: 353–357, 1988.	351
26.	Stahl W and Sies H. Antioxidant activity of carotenoids. *Mol Aspects Med* 24: 345–351, 2003.	349
27.	Sies H. Ebselen, a selenoorganic compound as glutathione peroxidase mimic. *Free Radic Biol Med* 14: 313–323, 1993.	320
28.	Murphy ME and Sies H. Reversible conversion of nitroxyl anion to nitric oxide by superoxide dismutase. *Proc Natl Acad Sci U S A* 88: 10860–10864, 1991.	319
29.	Heiss C, Dejam A, Kleinbongard P, Schewe T, Sies H, and Kelm M. Vascular effects of cocoa rich in flavan-3-ols. *JAMA* 290: 1030–1031, 2003.	313
30.	Stahl W, Schwarz W, Sundquist AR, and Sies H. cis-trans isomers of lycopene and beta-carotene in human serum and tissues. *Arch Biochem Biophys* 294: 173–177, 1992.	306
31.	Sies H, Stahl W, and Sevanian A. Nutritional, dietary and postprandial oxidative stress. *J Nutr* 135: 969–972, 2005.	305
32.	Berneburg M, Grether-Beck S, Kurten V, Ruzicka T, Briviba K, Sies H, and Krutmann J. Singlet oxygen mediates the UVA-induced generation of the photoaging-associated mitochondrial common deletion. *J Biol Chem* 274: 15345–15349, 1999.	298
33.	Devasagayam TP, Steenken S, Obendorf MS, Schulz WA, and Sies H. Formation of 8-hydroxy(deoxy)guanosine and generation of strand breaks at guanine residues in DNA by singlet oxygen. *Biochemistry* 30: 6283–6289, 1991.	287
34.	Arteel GE, Briviba K, and Sies H. Protection against peroxynitrite. *FEBS Lett* 445: 226–230, 1999.	280
35.	Stahl W, Junghans A, de Boer B, Driomina ES, Briviba K, and Sies H. Carotenoid mixtures protect multilamellar liposomes against oxidative damage: synergistic effects of lycopene and lutein. *FEBS Lett* 427: 305–308, 1998.	279
36.	Stahl W, Heinrich U, Jungmann H, Sies H, and Tronnier H. Carotenoids and carotenoids plus vitamin E protect against ultraviolet light-induced erythema in humans. *Am J Clin Nutr* 71: 795–798, 2000.	274
37.	Oshino N, Chance B, Sies H, and Bucher T. The role of H 2 O 2 generation in perfused rat liver and the reaction of catalase compound I and hydrogen donors. *Arch Biochem Biophys* 154: 117–131, 1973.	274
38.	Sies H and Summer KH. Hydroperoxide-metabolizing systems in rat liver. *Eur J Biochem* 57: 503–512, 1975.	273
39.	Hathcock JN, Azzi A, Blumberg J, Bray T, Dickinson A, Frei B, Jialal I, Johnston CS, Kelly FJ, Kraemer K, Packer L, Parthasarathy S, Sies H, and Traber MG. Vitamins E and C are safe across a broad range of intakes. *Am J Clin Nutr* 81: 736–745, 2005.	258
40.	Plummer JL, Smith BR, Sies H, and Bend JR. Chemical depletion of glutathione in vivo. *Methods Enzymol* 77: 50–59, 1981.	240
41.	Cadenas E and Sies H. Low-level chemiluminescence as an indicator of singlet molecular oxygen in biological systems. *Methods Enzymol* 105: 221–231, 1984.	236
42.	Sies H. The use of perfusion of liver and other organs for the study of microsomal electron-transport and cytochrome P-450 systems. *Methods Enzymol* 52: 48–59, 1978.	231
43.	Morita A, Werfel T, Stege H, Ahrens C, Karmann K, Grewe M, Grether-Beck S, Ruzicka T, Kapp A, Klotz LO, Sies H, and Krutmann J. Evidence that singlet oxygen-induced human T helper cell apoptosis is the basic mechanism of ultraviolet-A radiation phototherapy. *J Exp Med* 186: 1763–1768, 1997.	228
44.	Heiss C, Kleinbongard P, Dejam A, Perre S, Schroeter H, Sies H, and Kelm M. Acute consumption of flavanol-rich cocoa and the reversal of endothelial dysfunction in smokers. *J Am Coll Cardiol* 46: 1276–1283, 2005.	228
45.	Sies H, Gerstenecker C, Menzel H, and Flohe L. Oxidation in the NADP system and release of GSSG from hemoglobin-free perfused rat liver during peroxidatic oxidation of glutathione by hydroperoxides. *FEBS Lett* 27: 171–175, 1972.	223

(*continued*)

Table S2. (Continued)

	Publication	Total citations as of 6/30/2014
46.	Mecocci P, Polidori MC, Troiano L, Cherubini A, Cecchetti R, Pini G, Straatman M, Monti D, Stahl W, Sies H, Franceschi C, and Senin U. Plasma antioxidants and longevity: a study on healthy centenarians. *Free Radic Biol Med* 28: 1243–1248, 2000.	223
47.	Stahl W and Sies H. Antioxidant defense: vitamins E and C and carotenoids. *Diabetes* 46 Suppl 2: S14–S18, 1997.	218
48.	Arteel GE and Sies H. The biochemistry of selenium and the glutathione system. *Environ Toxicol Pharmacol* 10: 153–158, 2001.	217
49.	Sies H and Akerboom TP. Glutathione disulfide (GSSG) efflux from cells and tissues. *Methods Enzymol* 105: 445–451, 1984.	216
50.	Fritsch C, Homey B, Stahl W, Lehmann P, Ruzicka T, and Sies H. Preferential relative porphyrin enrichment in solar keratoses upon topical application of delta-aminolevulinic acid methylester. *Photochem Photobiol* 68: 218–221, 1998.	208
51.	Grether-Beck S, Olaizola-Horn S, Schmitt H, Grewe M, Jahnke A, Johnson JP, Briviba K, Sies H, and Krutmann J. Activation of transcription factor AP-2 mediates UVA radiation- and singlet oxygen-induced expression of the human intercellular adhesion molecule 1 gene. *Proc Natl Acad Sci U S A* 93: 14586–14591, 1996.	207
52.	Brenneisen P, Sies H, and Scharffetter-Kochanek K. Ultraviolet-B irradiation and matrix metalloproteinases: from induction via signaling to initial events. *Ann N Y Acad Sci* 973: 31–43, 2002.	204
53.	Wlaschek M, Briviba K, Stricklin GP, Sies H, and Scharffetter-Kochanek K. Singlet oxygen may mediate the ultraviolet A-induced synthesis of interstitial collagenase. *J Invest Dermatol* 104: 194–198, 1995.	199
54.	Ishikawa T and Sies H. Cardiac transport of glutathione disulfide and S-conjugate. Studies with isolated perfused rat heart during hydroperoxide metabolism. *J Biol Chem* 259: 3838–3843, 1984.	197
55.	Sies H and Stahl W. Nutritional protection against skin damage from sunlight. *Annu Rev Nutr* 24: 173–200, 2004.	193
56.	Sadik CD, Sies H, and Schewe T. Inhibition of 15-lipoxygenases by flavonoids: structure-activity relations and mode of action. *Biochem Pharmacol* 65: 773–781, 2003.	193
57.	Storz G, Christman MF, Sies H, and Ames BN. Spontaneous mutagenesis and oxidative damage to DNA in *Salmonella typhimurium*. *Proc Natl Acad Sci U S A* 84: 8917–8921, 1987.	192
58.	Brenneisen P, Wenk J, Klotz LO, Wlaschek M, Briviba K, Krieg T, Sies H, and Scharffetter-Kochanek K. Central role of ferrous/ferric iron in the ultraviolet B irradiation-mediated signaling pathway leading to increased interstitial collagenase (matrix-degrading metalloprotease (MMP)-1) and stromelysin-1 (MMP-3) mRNA levels in cultured human dermal fibroblasts. *J Biol Chem* 273: 5279–5287, 1998.	190
59.	Wefers H and Sies H. Hepatic low-level chemiluminescence during redox cycling of menadione and the menadione-glutathione conjugate: relation to glutathione and NAD(P)H:quinone reductase (DT-diaphorase) activity. *Arch Biochem Biophys* 224: 568–578, 1983.	190
60.	Parnham M and Sies H. Ebselen: prospective therapy for cerebral ischaemia. *Expert Opin Investig Drugs* 9: 607–619, 2000.	189
61.	Steinbrenner H and Sies H. Protection against reactive oxygen species by selenoproteins. *Biochim Biophys Acta* 1790: 1478–1485, 2009.	188
62.	Wefers H and Sies H. Oxidation of glutathione by the superoxide radical to the disulfide and the sulfonate yielding singlet oxygen. *Eur J Biochem* 137: 29–36, 1983.	184
63.	Klotz LO, Kroncke KD, Buchczyk DP, and Sies H. Role of copper, zinc, selenium and tellurium in the cellular defense against oxidative and nitrosative stress. *J Nutr* 133: 1448S-1451S, 2003.	184
64.	Polidori MC, Stahl W, Eichler O, Niestroj I, and Sies H. Profiles of antioxidants in human plasma. *Free Radic Biol Med* 30: 456–462, 2001.	181
65.	Klotz LO, Pellieux C, Briviba K, Pierlot C, Aubry JM, and Sies H. Mitogen-activated protein kinase (p38-, JNK-, ERK-) activation pattern induced by extracellular and intracellular singlet oxygen and UVA. *Eur J Biochem* 260: 917–922, 1999.	176
66.	Stahl W, Heinrich U, Wiseman S, Eichler O, Sies H, and Tronnier H. Dietary tomato paste protects against ultraviolet light-induced erythema in humans. *J Nutr* 131: 1449–1451, 2001.	175
67.	Ishikawa T, Esterbauer H, and Sies H. Role of cardiac glutathione transferase and of the glutathione S-conjugate export system in biotransformation of 4-hydroxynonenal in the heart. *J Biol Chem* 261: 1576–1581, 1986.	173

(*continued*)

TABLE S2. (CONTINUED)

	Publication	Total citations as of 6/30/2014
68.	Wahllander A, Soboll S, Sies H, Linke I, and Muller M. Hepatic mitochondrial and cytosolic glutathione content and the subcellular distribution of GSH-S-transferases. *FEBS Lett* 97: 138–140, 1979.	172
69.	Bartoli GM and Sies H. Reduced and oxidized glutathione efflux from liver. *FEBS Lett* 86: 89–91, 1978.	170
70.	Heinrich U, Gartner C, Wiebusch M, Eichler O, Sies H, Tronnier H, and Stahl W. Supplementation with beta-carotene or a similar amount of mixed carotenoids protects humans from UV-induced erythema. *J Nutr* 133: 98–101, 2003.	166
71.	Cadenas E and Sies H. Low level chemiluminescence of liver microsomal fractions initiated by tert-butyl hydroperoxide. Relation to microsomal hemoproteins, oxygen dependence, and lipid peroxidation. *Eur J Biochem* 124: 349–356, 1982.	166
72.	Sies H and Menck CF. Singlet oxygen induced DNA damage. *Mutat Res* 275: 367–375, 1992.	164
73.	Sies H, Schewe T, Heiss C, and Kelm M. Cocoa polyphenols and inflammatory mediators. *Am J Clin Nutr* 81: 304S–312S, 2005.	163
74.	Ribeiro DT, Madzak C, Sarasin A, Di Mascio P, Sies H, and Menck CF. Singlet oxygen induced DNA damage and mutagenicity in a single-stranded SV40-based shuttle vector. *Photochem Photobiol* 55: 39–45, 1992.	161
75.	Brenneisen P, Steinbrenner H, and Sies H. Selenium, oxidative stress, and health aspects. *Mol Aspects Med* 26: 256–267, 2005.	160
76.	Steffen Y, Gruber C, Schewe T, and Sies H. Mono-O-methylated flavanols and other flavonoids as inhibitors of endothelial NADPH oxidase. *Arch Biochem Biophys* 469: 209–219, 2008.	158
77.	Sies H, Koch OR, Martino E, and Boveris A. Increased biliary glutathione disulfide release in chronically ethanol-treated rats. *FEBS Lett* 103: 287–290, 1979.	157
78.	Ji Y, Akerboom TP, Sies H, and Thomas JA. S-nitrosylation and S-glutathiolation of protein sulfhydryls by S-nitroso glutathione. *Arch Biochem Biophys* 362: 67–78, 1999.	157
79.	Cadenas E, Simic MG, and Sies H. Antioxidant activity of 5-hydroxytryptophan, 5-hydroxyindole, and DOPA against microsomal lipid peroxidation and its dependence on vitamin E. *Free Radic Res Commun* 6: 11–17, 1989.	154
80.	Scholich H, Murphy ME, and Sies H. Antioxidant activity of dihydrolipoate against microsomal lipid peroxidation and its dependence on alpha-tocopherol. *Biochim Biophys Acta* 1001: 256–261, 1989.	154
81.	Schulz WA, Krummeck A, Rosinger I, Eickelmann P, Neuhaus C, Ebert T, Schmitz-Drager BJ, and Sies H. Increased frequency of a null-allele for NAD(P)H: quinone oxidoreductase in patients with urological malignancies. *Pharmacogenetics* 7: 235–239, 1997.	152
82.	Sies H and Murphy ME. Role of tocopherols in the protection of biological systems against oxidative damage. *J Photochem Photobiol B* 8: 211–218, 1991.	151
83.	Briviba K and Sies H. Nonenzymatic antioxidant defense systems. *Natural Antioxidants in Human Health and Disease*, edited by Frei B. San Diego, CA: Academic Press, 1994, pp. 107–128.	150
84.	Arteel GE and Sies H. Protection against peroxynitrite by cocoa polyphenol oligomers. *FEBS Lett* 462: 167–170, 1999.	149
85.	Di Mascio P and Sies H. Quantification of singlet oxygen generated by thermolysis of 3,3′-(1,4-naphthylene)dipropionate endoperoxide. Monomol and dimol photoemission and the effects of 1,4-diazabicyclo[2.2.2]octane. *J Am Chem Soc* 111: 2909–2914, 1989.	146
86.	Sies H and Stahl W. Lycopene: antioxidant and biological effects and its bioavailability in the human. *Proc Soc Exp Biol Med* 218: 121–124, 1998.	146
87.	Sies H and Graf P. Hepatic thiol and glutathione efflux under the influence of vasopressin, phenylephrine and adrenaline. *Biochem J* 226: 545–549, 1985.	145
88.	Kaiser S, Di Mascio P, Murphy ME, and Sies H. Physical and chemical scavenging of singlet molecular oxygen by tocopherols. *Arch Biochem Biophys* 277: 101–108, 1990.	144
89.	Stahl W, Nicolai S, Briviba K, Hanusch M, Broszeit G, Peters M, Martin HD, and Sies H. Biological activities of natural and synthetic carotenoids: induction of gap junctional communication and singlet oxygen quenching. *Carcinogenesis* 18: 89–92, 1997.	144
90.	Masumoto H and Sies H. The reaction of ebselen with peroxynitrite. *Chem Res Toxicol* 9: 262–267, 1996.	143

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Table S2. (Continued)

	Publication	*Total citations as of 6/30/2014*
91.	Epe B, Ballmaier D, Roussyn I, Briviba K, and Sies H. DNA damage by peroxynitrite characterized with DNA repair enzymes. *Nucleic Acids Res* 24: 4105–4110, 1996.	142
92.	Masumoto H, Kissner R, Koppenol WH, and Sies H. Kinetic study of the reaction of ebselen with peroxynitrite. *FEBS Lett* 398: 179–182, 1996.	139
93.	Bucher T, Brauser B, Conze A, Klein F, Langguth O, and Sies H. State of oxidation-reduction and state of binding in the cytosolic NADH-system as disclosed by equilibration with extracellular lactate-pyruvate in hemoglobin-free perfused rat liver. *Eur J Biochem* 27: 301–317, 1972.	139
94.	Possel H, Noack H, Putzke J, Wolf G, and Sies H. Selective upregulation of inducible nitric oxide synthase (iNOS) by lipopolysaccharide (LPS) and cytokines in microglia: in vitro and in vivo studies. *Glia* 32: 51–59, 2000.	133
95.	Klotz LO and Sies H. Defenses against peroxynitrite: selenocompounds and flavonoids. *Toxicol Lett* 140–141: 125–132, 2003.	132
96.	Beutner S, Bloedorn B, Frixel S, Hernández Blanco I, Hoffmann T, Martin H-D, Mayer B, Noack P, Ruck C, Schmidt M, Schülke I, Sell S, Ernst H, Haremza S, Seybold G, Sies H, Stahl W, and Walsh R. Quantitative assessment of antioxidant properties of natural colorants and phytochemicals: carotenoids, flavonoids, phenols and indigoids. The role of β-carotene in antioxidant functions. *J Sci Food Agric* 81: 559–568, 2001.	132
97.	Schewe T, Steffen Y, and Sies H. How do dietary flavanols improve vascular function? A position paper. *Arch Biochem Biophys* 476: 102–106, 2008.	132
98.	Stahl W, von Laar J, Martin HD, Emmerich T, and Sies H. Stimulation of gap junctional communication: comparison of acyclo-retinoic acid and lycopene. *Arch Biochem Biophys* 373: 271–274, 2000.	132
99.	Sies H and Arteel GE. Interaction of peroxynitrite with selenoproteins and glutathione peroxidase mimics. *Free Radic Biol Med* 28: 1451–1455, 2000.	131
100.	Muller A, Gabriel H, and Sies H. A novel biologically active selenoorganic compound—IV. Protective glutathione-dependent effect of PZ 51 (ebselen) against ADP-Fe induced lipid peroxidation in isolated hepatocytes. *Biochem Pharmacol* 34: 1185–1189, 1985.	129
101.	Panasenko OM, Sharov VS, Briviba K, and Sies H. Interaction of peroxynitrite with carotenoids in human low density lipoproteins. *Arch Biochem Biophys* 373: 302–305, 2000.	129
102.	Muller A and Sies H. Role of alcohol dehydrogenase activity and the acetaldehyde in ethanol-induced ethane and pentane production by isolated perfused rat liver. *Biochem J* 206: 153–156, 1982.	128
103.	Hollman PC, Cassidy A, Comte B, Heinonen M, Richelle M, Richling E, Serafini M, Scalbert A, Sies H, and Vidry S. The biological relevance of direct antioxidant effects of polyphenols for cardiovascular health in humans is not established. *J Nutr* 141: 989S-1009S, 2011.	126
104.	Klotz LO, Schieke SM, Sies H, and Holbrook NJ. Peroxynitrite activates the phosphoinositide 3-kinase/Akt pathway in human skin primary fibroblasts. *Biochem J* 352 Pt 1: 219–225, 2000.	125
105.	Stahl W and Sies H. Carotenoids and protection against solar UV radiation. *Skin Pharmacol Appl Skin Physiol* 15: 291–296, 2002.	125
106.	Schewe T, Sadik C, Klotz L-O, Yoshimoto T, Kühn H, and Sies H. Polyphenols of cocoa: inhibition of mammalian 15-lipoxygenase. *Biol Chem Hoppe Seyler* 382: 1687–1696, 2001.	123
107.	Brigelius R, Lenzen R, and Sies H. Increase in hepatic mixed disulphide and glutathione disulphide levels elicited by paraquat. *Biochem Pharmacol* 31: 1637–1641, 1982.	123
108.	Heiss C, Finis D, Kleinbongard P, Hoffmann A, Rassaf T, Kelm M, and Sies H. Sustained increase in flow-mediated dilation after daily intake of high-flavanol cocoa drink over 1 week. *J Cardiovasc Pharmacol* 49: 74–80, 2007.	119
109.	Wang JF, Komarov P, Sies H, and de Groot H. Contribution of nitric oxide synthase to luminol-dependent chemiluminescence generated by phorbol-ester-activated Kupffer cells. *Biochem J* 279 (Pt 1): 311–314, 1991.	118

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Table S2. (Continued)

	Publication	Total citations as of 6/30/2014
110.	Haussinger D, Gerok W, and Sies H. Regulation of flux through glutaminase and glutamine synthetase in isolated perfused rat liver. *Biochim Biophys Acta* 755: 272–278, 1983.	118
111.	Schewe T, Kuhn H, and Sies H. Flavonoids of cocoa inhibit recombinant human 5-lipoxygenase. *J Nutr* 132: 1825–1829, 2002.	117
112.	Wiswedel I, Hirsch D, Kropf S, Gruening M, Pfister E, Schewe T, and Sies H. Flavanol-rich cocoa drink lowers plasma F(2)-isoprostane concentrations in humans. *Free Radic Biol Med* 37: 411–421, 2004.	119
113.	Di Mascio P, Bechara EJ, Medeiros MH, Briviba K, and Sies H. Singlet molecular oxygen production in the reaction of peroxynitrite with hydrogen peroxide. *FEBS Lett* 355: 287–289, 1994.	117
114.	Scharffetter-Kochanek K, Wlaschek M, Briviba K, and Sies H. Singlet oxygen induces collagenase expression in human skin fibroblasts. *FEBS Lett* 331: 304–306, 1993.	115
115.	Stahl W, Heinrich U, Jungmann H, von Laar J, Schietzel M, Sies H, and Tronnier H. Increased dermal carotenoid levels assessed by noninvasive reflection spectrophotometry correlate with serum levels in women ingesting Betatene. *J Nutr* 128: 903–907, 1998.	115
116.	Heinrich U, Neukam K, Tronnier H, Sies H, and Stahl W. Long-term ingestion of high flavanol cocoa provides photoprotection against UV-induced erythema and improves skin condition in women. *J Nutr* 136: 1565–1569, 2006.	115
117.	Junghans A, Sies H, and Stahl W. Macular pigments lutein and zeaxanthin as blue light filters studied in liposomes. *Arch Biochem Biophys* 391: 160–164, 2001.	113
118.	Wlaschek M, Wenk J, Brenneisen P, Briviba K, Schwarz A, Sies H, and Scharffetter-Kochanek K. Singlet oxygen is an early intermediate in cytokine-dependent ultraviolet-A induction of interstitial collagenase in human dermal fibroblasts in vitro. *FEBS Lett* 413: 239–242, 1997.	112
119.	Sies H. Total antioxidant capacity: appraisal of a concept. *J Nutr* 137: 1493–1495, 2007.	112
120.	Schieke SM, Briviba K, Klotz LO, and Sies H. Activation pattern of mitogen-activated protein kinases elicited by peroxynitrite: attenuation by selenite supplementation. *FEBS Lett* 448: 301–303, 1999.	110
121.	Kono H, Arteel GE, Rusyn I, Sies H, and Thurman RG. Ebselen prevents early alcohol-induced liver injury in rats. *Free Radic Biol Med* 30: 403–411, 2001.	108
122.	Roussyn I, Briviba K, Masumoto H, and Sies H. Selenium-containing compounds protect DNA from single-strand breaks caused by peroxynitrite. *Arch Biochem Biophys* 330: 216–218, 1996.	106
123.	Murphy ME and Sies H. Visible-range low-level chemiluminescence in biological systems. *Methods Enzymol* 186: 595–610, 1990.	106
124.	Sies H and Moss KM. A role of mitochondrial glutathione peroxidase in modulating mitochondrial oxidations in liver. *Eur J Biochem* 84: 377–383, 1978.	105
125.	Klotz LO, Schroeder P, and Sies H. Peroxynitrite signaling: receptor tyrosine kinases and activation of stress-responsive pathways. *Free Radic Biol Med* 33: 737–743, 2002.	105
126.	Cadenas E, Sies H, Nastainczyk W, and Ullrich V. Singlet oxygen formation detected by low-level chemiluminescence during enzymatic reduction of prostaglandin G2 to H2. *Hoppe Seylers Z Physiol Chem* 364: 519–528, 1983.	105
127.	Häussinger D, Gerok W, and Sies H. Hepatic role in pH regulation: role of the intercellular glutamine cycle. *Trends Biochemical Sciences* 9: 300–302, 1984.	102
128.	Hansberg W, de Groot H, and Sies H. Reactive oxygen species associated with cell differentiation in Neurospora crassa. *Free Radic Biol Med* 14: 287–293, 1993.	102
129.	Grune T, Klotz LO, Gieche J, Rudeck M, and Sies H. Protein oxidation and proteolysis by the nonradical oxidants singlet oxygen or peroxynitrite. *Free Radic Biol Med* 30: 1243–1253, 2001.	102

(*continued*)

TABLE S2. (CONTINUED)

	Publication	*Total citations as of 6/30/2014*
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