

Hideo Kimura

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

79 papers	12,568 citations	49 h-index	89 g-index
89 ext. papers	13,731 ext. citations	5.8 avg, IF	7.16 L-index

#	Paper	IF	Citations
79	The possible role of hydrogen sulfide as an endogenous smooth muscle relaxant in synergy with nitric oxide. <i>Biochemical and Biophysical Research Communications</i> , 1997 , 237, 527-31	3.4	977
78	Hydrogen sulfide attenuates myocardial ischemia-reperfusion injury by preservation of mitochondrial function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 15560-5	11.5	881
77	3-Mercaptopyruvate sulfurtransferase produces hydrogen sulfide and bound sulfane sulfur in the brain. <i>Antioxidants and Redox Signaling</i> , 2009 , 11, 703-14	8.4	704
76	Hydrogen sulfide protects neurons from oxidative stress. <i>FASEB Journal</i> , 2004 , 18, 1165-7	0.9	666
75	Brain hydrogen sulfide is severely decreased in Alzheimer's disease. <i>Biochemical and Biophysical Research Communications</i> , 2002 , 293, 1485-8	3.4	639
74	Development of a highly selective fluorescence probe for hydrogen sulfide. <i>Journal of the American Chemical Society</i> , 2011 , 133, 18003-5	16.4	550
73	Hydrogen sulfide increases glutathione production and suppresses oxidative stress in mitochondria. <i>Antioxidants and Redox Signaling</i> , 2010 , 12, 1-13	8.4	471
72	Hydrogen sulfide: its production, release and functions. <i>Amino Acids</i> , 2011 , 41, 113-21	3.5	468
71	A source of hydrogen sulfide and a mechanism of its release in the brain. <i>Antioxidants and Redox Signaling</i> , 2009 , 11, 205-14	8.4	395
70	Vascular endothelium expresses 3-mercaptopyruvate sulfurtransferase and produces hydrogen sulfide. <i>Journal of Biochemistry</i> , 2009 , 146, 623-6	3.1	352
69	A novel pathway for the production of hydrogen sulfide from D-cysteine in mammalian cells. <i>Nature Communications</i> , 2013 , 4, 1366	17.4	341
68	Hydrogen sulfide as a neuromodulator. <i>Molecular Neurobiology</i> , 2002 , 26, 13-9	6.2	334
67	Hydrogen sulfide induces cyclic AMP and modulates the NMDA receptor. <i>Biochemical and Biophysical Research Communications</i> , 2000 , 267, 129-33	3.4	283
66	Hydrogen sulfide induces calcium waves in astrocytes. <i>FASEB Journal</i> , 2004 , 18, 557-9	0.9	261
65	Polysulfides are possible H ₂ S-derived signaling molecules in rat brain. <i>FASEB Journal</i> , 2013 , 27, 2451-7	0.9	255
64	Hydrogen sulfide: from brain to gut. <i>Antioxidants and Redox Signaling</i> , 2010 , 12, 1111-23	8.4	251
63	Hydrogen sulfide protects HT22 neuronal cells from oxidative stress. <i>Antioxidants and Redox Signaling</i> , 2006 , 8, 661-70	8.4	250

62	L-cysteine inhibits insulin release from the pancreatic beta-cell: possible involvement of metabolic production of hydrogen sulfide, a novel gasotransmitter. <i>Diabetes</i> , 2006 , 55, 1391-7	0.9	235
61	Murine cystathionine gamma-lyase: complete cDNA and genomic sequences, promoter activity, tissue distribution and developmental expression. <i>Biochemical Journal</i> , 2004 , 381, 113-23	3.8	234
60	Production and physiological effects of hydrogen sulfide. <i>Antioxidants and Redox Signaling</i> , 2014 , 20, 783-93	8.4	210
59	Thioredoxin and dihydrolipoic acid are required for 3-mercaptopyruvate sulfurtransferase to produce hydrogen sulfide. <i>Biochemical Journal</i> , 2011 , 439, 479-85	3.8	207
58	Hydrogen sulfide is a signaling molecule and a cytoprotectant. <i>Antioxidants and Redox Signaling</i> , 2012 , 17, 45-57	8.4	206
57	Signaling molecules: hydrogen sulfide and polysulfide. <i>Antioxidants and Redox Signaling</i> , 2015 , 22, 362-76	6.4	204
56	The physiological role of hydrogen sulfide and beyond. <i>Nitric Oxide - Biology and Chemistry</i> , 2014 , 41, 4-10	5	199
55	Physiological role of hydrogen sulfide and polysulfide in the central nervous system. <i>Neurochemistry International</i> , 2013 , 63, 492-7	4.4	195
54	Cystathionine beta-synthase, a key enzyme for homocysteine metabolism, is preferentially expressed in the radial glia/astrocyte lineage of developing mouse CNS. <i>FASEB Journal</i> , 2005 , 19, 1854-6	0.9	182
53	Physiological roles of hydrogen sulfide: synaptic modulation, neuroprotection, and smooth muscle relaxation. <i>Antioxidants and Redox Signaling</i> , 2005 , 7, 795-803	8.4	179
52	Hydrogen sulfide is produced in response to neuronal excitation. <i>Journal of Neuroscience</i> , 2002 , 22, 3386-91	6.9	149
51	Identification of H2S3 and H2S produced by 3-mercaptopyruvate sulfurtransferase in the brain. <i>Scientific Reports</i> , 2015 , 5, 14774	4.9	143
50	Polysulfide exerts a protective effect against cytotoxicity caused by t-buthylhydroperoxide through Nrf2 signaling in neuroblastoma cells. <i>FEBS Letters</i> , 2013 , 587, 3548-55	3.8	137
49	Hydrogen sulfide: its production and functions. <i>Experimental Physiology</i> , 2011 , 96, 833-5	2.4	126
48	Hydrogen sulfide protects the retina from light-induced degeneration by the modulation of Ca ²⁺ influx. <i>Journal of Biological Chemistry</i> , 2011 , 286, 39379-86	5.4	112
47	Abnormal lipid metabolism in cystathionine beta-synthase-deficient mice, an animal model for hyperhomocysteinemia. <i>Journal of Biological Chemistry</i> , 2004 , 279, 52961-9	5.4	111
46	Hydrogen sulfide and polysulfides as biological mediators. <i>Molecules</i> , 2014 , 19, 16146-57	4.8	109
45	Cystathionine beta-synthase is enriched in the brains of Down's patients. <i>Biochemical and Biophysical Research Communications</i> , 2005 , 338, 1547-50	3.4	107

44	Hydrogen sulfide and polysulfides as signaling molecules. <i>Proceedings of the Japan Academy Series B: Physical and Biological Sciences</i> , 2015 , 91, 131-59	4	84
43	Polysulfides (HS) produced from the interaction of hydrogen sulfide (HS) and nitric oxide (NO) activate TRPA1 channels. <i>Scientific Reports</i> , 2017 , 7, 45995	4.9	79
42	3-Mercaptopyruvate sulfurtransferase produces potential redox regulators cysteine- and glutathione-persulfide (Cys-SSH and GSSH) together with signaling molecules HS, HS and HS. <i>Scientific Reports</i> , 2017 , 7, 10459	4.9	79
41	Glucose-induced production of hydrogen sulfide may protect the pancreatic beta-cells from apoptotic cell death by high glucose. <i>FEBS Letters</i> , 2009 , 583, 377-82	3.8	68
40	Nutritional essentiality of sulfur in health and disease. <i>Nutrition Reviews</i> , 2013 , 71, 413-32	6.4	64
39	A novel enhancing mechanism for hydrogen sulfide-producing activity of cystathionine beta-synthase. <i>Journal of Biological Chemistry</i> , 2002 , 277, 42680-5	5.4	62
38	Amyloid β Toxicity Consists of a Ca^{2+} -Independent Early Phase and a Ca^{2+} -Dependent Late Phase. <i>Journal of Neurochemistry</i> , 2002 , 67, 2074-2078	6	59
37	Physiological Roles of Hydrogen Sulfide and Polysulfides. <i>Handbook of Experimental Pharmacology</i> , 2015 , 230, 61-81	3.2	58
36	Development of a reversible fluorescent probe for reactive sulfur species, sulfane sulfur, and its biological application. <i>Chemical Communications</i> , 2017 , 53, 1064-1067	5.8	55
35	Hydrogen sulfide is produced by cystathionine β -lyase at the steady-state low intracellular Ca^{2+} concentrations. <i>Biochemical and Biophysical Research Communications</i> , 2013 , 431, 131-5	3.4	54
34	Production of hydrogen sulfide from d-cysteine and its therapeutic potential. <i>Frontiers in Endocrinology</i> , 2013 , 4, 87	5.7	53
33	Discovery and Mechanistic Characterization of Selective Inhibitors of HS-producing Enzyme: 3-Mercaptopyruvate Sulfurtransferase (3MST) Targeting Active-site Cysteine Persulfide. <i>Scientific Reports</i> , 2017 , 7, 40227	4.9	51
32	Polysulfide evokes acute pain through the activation of nociceptive TRPA1 in mouse sensory neurons. <i>Molecular Pain</i> , 2015 , 11, 24	3.4	50
31	Signaling by hydrogen sulfide (HS) and polysulfides (HS) in the central nervous system. <i>Neurochemistry International</i> , 2019 , 126, 118-125	4.4	49
30	Hydrogen polysulfide (HS ₂) signaling along with hydrogen sulfide (HS) and nitric oxide (NO). <i>Journal of Neural Transmission</i> , 2016 , 123, 1235-1245	4.3	46
29	Signalling by hydrogen sulfide and polysulfides via protein S-sulfuration. <i>British Journal of Pharmacology</i> , 2020 , 177, 720-733	8.6	42
28	Analysis of endogenous HS and HS in mouse brain by high-performance liquid chromatography with fluorescence and tandem mass spectrometric detection. <i>Free Radical Biology and Medicine</i> , 2017 , 113, 355-362	7.8	41
27	Hydrogen sulfide enhances reducing activity in neurons: neurotrophic role of H ₂ S in the brain?. <i>Antioxidants and Redox Signaling</i> , 2007 , 9, 2035-41	8.4	38

26	Metabolic turnover of hydrogen sulfide. <i>Frontiers in Physiology</i> , 2012 , 3, 101	4.6	36
25	Cadmium exposure alters metabolomics of sulfur-containing amino acids in rat testes. <i>Antioxidants and Redox Signaling</i> , 2005 , 7, 781-7	8.4	32
24	Alternative pathway of HS and polysulfides production from sulfurated catalytic-cysteine of reaction intermediates of 3-mercaptopyruvate sulfurtransferase. <i>Biochemical and Biophysical Research Communications</i> , 2018 , 496, 648-653	3.4	30
23	Determination of oxidized and reduced nicotinamide adenine dinucleotide in cell monolayers using a single extraction procedure and a spectrophotometric assay. <i>Analytical Biochemistry</i> , 2005 , 338, 131-5	3.1	26
22	Excess hydrogen sulfide and polysulfides production underlies a schizophrenia pathophysiology. <i>EMBO Molecular Medicine</i> , 2019 , 11, e10695	12	25
21	Sulfite protects neurons from oxidative stress. <i>British Journal of Pharmacology</i> , 2019 , 176, 571-582	8.6	23
20	Differentiated astrocytes acquire sensitivity to hydrogen sulfide that is diminished by the transformation into reactive astrocytes. <i>Antioxidants and Redox Signaling</i> , 2007 , 9, 257-69	8.4	23
19	Protein phosphorylation involved in the gene expression of the hydrogen sulphide producing enzyme cystathionine β -lyase in the pancreatic β -cell. <i>Molecular and Cellular Endocrinology</i> , 2012 , 350, 31-8	4.4	19
18	Hydrogen Sulfide (HS) and Polysulfide (HS) Signaling: The First 25 Years. <i>Biomolecules</i> , 2021 , 11,	5.9	19
17	Polysulfide promotes neuroblastoma cell differentiation by accelerating calcium influx. <i>Biochemical and Biophysical Research Communications</i> , 2015 , 459, 488-92	3.4	16
16	Hydrogen sulfide signalling in the CNS - Comparison with NO. <i>British Journal of Pharmacology</i> , 2020 , 177, 5031-5045	8.6	10
15	A mechanism of retinal protection from light-induced degeneration by hydrogen sulfide. <i>Communicative and Integrative Biology</i> , 2012 , 5, 169-71	1.7	8
14	Development and Aging Expression of Cystathionine-Beta Synthase in the Temporal Lobe and Cerebellum of Down Syndrome Patients. <i>Neuroembryology and Aging</i> , 2006 , 4, 202-207		8
13	Polysulfide inhibits hypoxia-elicited hypoxia-inducible factor activation in a mitochondria-dependent manner. <i>Mitochondrion</i> , 2021 , 59, 255-266	4.9	4
12	Pharmacological polysulfide suppresses glucose-stimulated insulin secretion in an ATP-sensitive potassium channel-dependent manner. <i>Scientific Reports</i> , 2019 , 9, 19377	4.9	4
11	Hydrogen Sulfide-Mediated Cellular Signaling and Cytoprotection 2013 , 181-202		1
10	Physiological and Pathophysiological Functions of Hydrogen Sulfide 2012 , 71-98		0
9	Hydrogen Sulfide and the Regulation of Neuronal Activities 2004 , 315-321		0

8 Hydrogen Sulfide as a Synaptic Modulator **2005**, 315-321

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| 7 | Differentiated Astrocytes Acquire Sensitivity to Hydrogen Sulfide That Is Diminished by the Transformation into Reactive Astrocytes. <i>Antioxidants and Redox Signaling</i> , 2006 , 061121054212007 | 8.4 |
| 6 | Hydrogen Sulfide (H ₂ S) and polysulfides (H ₂ Sn) as signaling molecules. <i>Proceedings for Annual Meeting of the Japanese Pharmacological Society</i> , 2018 , WCP2018, PO4-1-80 | ○ |
| 5 | Hydrogen trisulfide induced modulation of vascular tone in mice aorta. <i>Proceedings for Annual Meeting of the Japanese Pharmacological Society</i> , 2018 , WCP2018, PO4-2-30 | ○ |
| 4 | The production and role of hydrogen sulfide and hydrogen polysulfides in mammalian cells. <i>Proceedings for Annual Meeting of the Japanese Pharmacological Society</i> , 2018 , WCP2018, PO4-1-23 | ○ |
| 3 | Signaling by hydrogen polysulfides (H ₂ Sn) produced by the chemical interaction between hydrogen sulfide (H ₂ S) and nitric oxide (NO). <i>Proceedings for Annual Meeting of the Japanese Pharmacological Society</i> , 2019 , 92, 3-S21-2 | ○ |
| 2 | Sulfite protects neurons from oxidative stress.. <i>Proceedings for Annual Meeting of the Japanese Pharmacological Society</i> , 2019 , 92, 1-O-20 | ○ |
| 1 | Signaling molecules hydrogen sulfide (H ₂ S), polysulfides (H ₂ Sn) and sulfite (H ₂ SO ₃). <i>Proceedings for Annual Meeting of the Japanese Pharmacological Society</i> , 2019 , 92, 2-S17-1 | ○ |