

Zbynek Hrkal

List of Publications by Year in descending order

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Version: 2024-02-01

88
papers

1,896
citations

257101

24
h-index

288905

40
g-index

89
all docs

89
docs citations

89
times ranked

1817
citing authors

#	ARTICLE	IF	CITATIONS
1	Transfer of Heme from Ferrihemoglobin and Ferrihemoglobin Isolated Chains to Hemopexin. FEBS Journal, 1974, 43, 73-78.	0.2	208
2	Partial characterization of the heme-binding serum glycoproteins rabbit and human hemopexin. Biochemistry, 1971, 10, 1746-1750.	1.2	126
3	Mitochondrial and endoplasmic reticulum stress-induced apoptotic pathways are activated by 5-aminolevulinic acid-based photodynamic therapy in HL60 leukemia cells. Journal of Photochemistry and Photobiology B: Biology, 2003, 69, 71-85.	1.7	99
4	Binding of Heme-Hemopexin Complexes by Soluble HxuA Protein Allows Utilization of This Complexed Heme by <i>Haemophilus influenzae</i> . Infection and Immunity, 1998, 66, 4511-4516.	1.0	95
5	The effects of heme-binding proteins on the peroxidative and catalatic activities of hemin. Free Radical Biology and Medicine, 1999, 27, 214-219.	1.3	88
6	Development of a tool for managing groundwater resources in semi-arid hard rock regions: application to a rural watershed in South India. Hydrological Processes, 2010, 24, 2784-2797.	1.1	63
7	Groundwater resources use and management in the Amu Darya River Basin (Central Asia). Environmental Earth Sciences, 2010, 59, 1183-1193.	1.3	61
8	Kinetics of heme interaction with heme-binding proteins: The effect of heme aggregation state. Biochimica Et Biophysica Acta - General Subjects, 1997, 1336, 497-501.	1.1	54
9	Identification of an outer membrane protein involved in utilization of hemoglobin-haptoglobin complexes by nontypeable <i>Haemophilus influenzae</i> . Infection and Immunity, 1996, 64, 3703-3712.	1.0	53
10	Selective destruction of leukaemic cells by photo-activation of 5-aminolaevulinic acid-induced protoporphyrin-IX. Journal of Photochemistry and Photobiology B: Biology, 1998, 47, 74-81.	1.7	48
11	Early apoptotic features of K562 cell death induced by 5-aminolaevulinic acid-based photodynamic therapy. Journal of Photochemistry and Photobiology B: Biology, 2004, 73, 67-78.	1.7	45
12	Hydrogeology Journal, 2011, 19, 1545-1562.	0.9	41
13	Roles of heme iron-coordinating histidine residues of human hemopexin expressed in baculovirus-infected insect cells.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 8423-8427.	3.3	35
14	Carbon isotopes to constrain the origin and circulation pattern of groundwater in the north-western part of the Bohemian Cretaceous Basin (Czech Republic). Applied Geochemistry, 2010, 25, 1265-1279.	1.4	33
15	Involvement of HxuC Outer Membrane Protein in Utilization of Hemoglobin by <i>Haemophilus influenzae</i> . Infection and Immunity, 2001, 69, 2353-2363.	1.0	31
16	Labeling of apoptotic JURL-MK1 cells by fluorescent caspase-3 inhibitor FAM-DEVD-fmk occurs mainly at site(s) different from caspase-3 active site. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2007, 71A, 605-611.	1.1	30
17	Detection of Phase Variation in Expression of Proteins Involved in Hemoglobin and Hemoglobin-Haptoglobin Binding by Nontypeable <i>Haemophilus influenzae</i> . Infection and Immunity, 2000, 68, 4092-4101.	1.0	28
18	Occurrence of Pharmaceuticals in Wastewater and Their Interaction with Shallow Aquifers: A Case Study of Horná Beátkovice, Czech Republic. Water (Switzerland), 2017, 9, 218.	1.2	28

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19	Differential expression of nuclear HMG1, HMG2 proteins and H10 histone in various blood cells. <i>Cell Biochemistry and Function</i> , 1995, 13, 125-133.	1.4	27
20	Affinity chromatography of serum haemopexin. <i>Journal of Chromatography A</i> , 1977, 131, 453-457.	1.8	26
21	Vulnerability of groundwater to acid deposition, Jizersk Mountains, northern Czech Republic: construction and reliability of a GIS-based vulnerability map. <i>Hydrogeology Journal</i> , 2001, 9, 348-357.	0.9	26
22	Haeme binding to human serum albumin and to the three large cyanogen bromide albumin fragments. <i>International Journal of Biochemistry & Cell Biology</i> , 1978, 9, 349-355.	0.8	25
23	Hyaluronan-binding properties of human serum hemopexin. <i>FEBS Letters</i> , 1996, 383, 72-74.	1.3	25
24	Interferon-alpha suppresses proliferation of chronic myelogenous leukemia cells K562 by extending cell cycle S-phase without inducing apoptosis. <i>Blood Cells, Molecules, and Diseases</i> , 2004, 32, 262-269.	0.6	24
25	Palaeorecharge conditions of the deep aquifers of the Northern Aquitaine region (France). <i>Journal of Hydrology</i> , 2009, 368, 1-16.	2.3	24
26	Hydrophobic interaction chromatography of serum proteins on Phenyl-Sepharose CL-4B. <i>Journal of Chromatography A</i> , 1982, 242, 385-388.	1.8	23
27	Haeme binding to albumin and equilibria in the albumin-ferrihaemoglobin and albumin-haemopexin systems. <i>International Journal of Biochemistry & Cell Biology</i> , 1980, 12, 619-624.	0.8	22
28	Will the river Irtysh survive the year 2030? Impact of long-term unsuitable land use and water management of the upper stretch of the river catchment (North Kazakhstan). <i>Environmental Geology</i> , 2006, 50, 717-723.	1.2	21
29	A study of the conformation of human globin in solution by optical methods. <i>Biochimica Et Biophysica Acta (BBA) - Protein Structure</i> , 1967, 133, 527-534.	1.7	19
30	The 5-aminolaevulinic acid-based photodynamic effects on nuclei and nucleoli of HL-60 leukemic granulocytic precursors. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2000, 59, 80-86.	1.7	19
31	Photodynamic treatment (ALA-PDT) suppresses the expression of the oncogenic Bcr-Abl kinase and affects the cytoskeleton organization in K562 cells. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2006, 83, 205-212.	1.7	18
32	Isoform-specific cleavage of 14 proteins in apoptotic JURLMK1 cells. <i>Journal of Cellular Biochemistry</i> , 2009, 106, 673-681.	1.2	18
33	Protein Changes in HL60 Leukemia Cells Associated with 5-Aminolevulinic Acid-based Photodynamic Therapy. Early Effects on Endoplasmic Reticulum Chaperones. <i>Photochemistry and Photobiology</i> , 2000, 72, 16.	1.3	18
34	Bilirubin and haeme binding to human serum albumin studied by spectroscopy methods. <i>International Journal of Biochemistry & Cell Biology</i> , 1984, 16, 799-804.	0.8	17
35	Isolation of human haemopexin in apo-form by chromatography on S-sepharose fast flow and blue sepharose CL-6B. <i>Biomedical Chromatography</i> , 1992, 6, 212-214.	0.8	17
36	Binding of meso-tetra(4-sulfonatophenyl)porphine to haemopexin and albumin studied by spectroscopy methods. <i>International Journal of Biochemistry & Cell Biology</i> , 1994, 26, 631-637.	0.8	17

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37	Photodynamic effects of meso-tetra(4-sulfonatophenyl) porphine on human leukemia cells HEL and HL6, human lymphocytes and bone marrow progenitor cells. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 1997, 39, 269-278.	1.7	17
38	The proteomic study of sodium butyrate antiproliferative/cytodifferentiation effects on K562 cells. <i>Blood Cells, Molecules, and Diseases</i> , 2006, 37, 210-217.	0.6	17
39	Rho-Signaling Pathways in Chronic Myelogenous Leukemia. <i>Cardiovascular & Hematological Disorders Drug Targets</i> , 2008, 8, 261-267.	0.2	17
40	Suberoylanilide hydroxamic acid (SAHA) at subtoxic concentrations increases the adhesivity of human leukemic cells to fibronectin. <i>Journal of Cellular Biochemistry</i> , 2010, 109, 184-195.	1.2	17
41	Fast apoptosis and erythroid differentiation induced by imatinib mesylate in JURL-MK1 cells. <i>Journal of Cellular Biochemistry</i> , 2005, 95, 268-280.	1.2	16
42	Haernea™ Sepharose 4B as chromatographic matrix for the isolation of haemopexin from human serum. <i>Journal of Chromatography A</i> , 1979, 169, 500-504.	1.8	15
43	Accumulation of protoporphyrin-IX (PpIX) in leukemic cell lines following induction by 5-aminolevulinic acid (ALA). <i>Comparative Biochemistry and Physiology C, Comparative Pharmacology and Toxicology</i> , 2000, 126, 245-252.	0.5	15
44	Purification of human serum hemopexin by chromatography on DEAE-cellulose. <i>Journal of Chromatography A</i> , 1972, 72, 198-201.	1.8	14
45	Trends in impact of acidification on groundwater bodies in the Czech Republic; an estimation of atmospheric deposition at the horizon 2015. <i>Journal of Atmospheric Chemistry</i> , 2006, 53, 1-12.	1.4	13
46	Pharmaceuticals in groundwaters: a case study of the psychiatric hospital at Horná Bečkovice, Czech Republic. <i>Environmental Earth Sciences</i> , 2015, 73, 3775-3784.	1.3	12
47	Identification of leukemia cell-derived inhibitory activity (LIA) in conditioned media from human myeloid leukemic cell line ML-2. <i>Blut</i> , 1986, 52, 51-58.	1.2	11
48	Isolation of serum albumin and immunoglobulins by chromatography on Con-A Sepharose and Sephadex G-150. <i>Journal of Chromatography A</i> , 1977, 135, 193-195.	1.8	10
49	Nucleoli in large (giant) bi- and multinucleate cells after apoptosis-inducing photodynamic treatment. <i>European Journal of Histochemistry</i> , 2003, 47, 39.	0.6	10
50	Changes in Acid Atmospheric Deposition in krušné Mts. and Āumava (Czech Republic) and Their Impact on Groundwater Quality. <i>Water, Air, and Soil Pollution</i> , 2004, 157, 163-178.	1.1	10
51	To the intranucleolar translocation of AgNORs in leukemic early granulocytic and plasmacytic precursors. <i>Histochemistry and Cell Biology</i> , 2006, 125, 165-170.	0.8	10
52	Changes in cell adhesivity and cytoskeleton-related proteins during imatinib-induced apoptosis of leukemic JURL-MK1 cells. <i>Journal of Cellular Biochemistry</i> , 2010, 111, 1413-1425.	1.2	10
53	Identification of HL60 Proteins Affected by 5-Aminolevulinic Acid-Based Photodynamic Therapy Using Mass Spectrometric Approach. <i>Collection of Czechoslovak Chemical Communications</i> , 2001, 66, 1720-1728.	1.0	10
54	On the molecular conformation of human haemopexin. <i>Biochimica Et Biophysica Acta (BBA) - Protein Structure</i> , 1977, 495, 268-278.	1.7	9

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55	Determination of the natural background content of metals in ground waters of the Czech Republic. <i>Applied Geochemistry</i> , 2010, 25, 755-762.	1.4	9
56	PPCP Monitoring in Drinking Water Supply Systems: The Example of KáíranÃ½ Waterworks in Central Bohemia. <i>Water (Switzerland)</i> , 2018, 10, 1852.	1.2	9
57	Climate change in Central Europe and the sensitivity of the hard rock aquifer in the Bohemian Massif to decline of recharge: case study from the Bohemian Massif. <i>Environmental Earth Sciences</i> , 2009, 59, 703-713.	1.3	8
58	Comparison of the Conformation of Mammalian Globins in Solution. <i>FEBS Journal</i> , 1972, 31, 296-299.	0.2	6
59	Reactivity of sulfhydryl groups of human globin. <i>Biochimica Et Biophysica Acta (BBA) - Protein Structure</i> , 1972, 257, 324-327.	1.7	5
60	On the molecular conformation of human haemopexin. <i>Biochimica Et Biophysica Acta (BBA) - Protein Structure</i> , 1977, 495, 260-267.	1.7	5
61	Kinetics of haem binding to human albumin and haemopexin: nonspecific interactions of haem with proteins. <i>International Journal of Biological Macromolecules</i> , 1983, 5, 194-198.	3.6	5
62	Contamination of groundwaters by heavy metals in the city of Ust Kamenogorsk, north-eastern Kazakhstan. <i>Environmental Geology</i> , 2001, 41, 174-182.	1.2	5
63	Effects of groundwater exploitation on the Borjomi mineral water reservoir in Georgia. <i>Environmental Geology</i> , 2008, 54, 1301-1311.	1.2	5
64	To what extent can atmospheric deposition influence the natural background of metals in ground waters? A case study in the Czech Republic. <i>Journal of Atmospheric Chemistry</i> , 2011, 68, 127-138.	1.4	5
65	Association-dissociation equilibria in human globin solutions. <i>Biochimica Et Biophysica Acta (BBA) - Protein Structure</i> , 1968, 160, 269-271.	1.7	4
66	Isolation of the components of rat hemoglobin by zone electrophoresis. <i>Analytical Biochemistry</i> , 1972, 50, 639-641.	1.1	4
67	The reactivity of the disulfide bonds of human serum haemopexin. <i>International Journal of Biochemistry & Cell Biology</i> , 1986, 18, 283-284.	0.8	4
68	Purification and characterization of granulocyte-macrophage colony stimulating factor from human placenta. <i>Biomedical Applications</i> , 1987, 413, 242-246.	1.7	4
69	Geothermal assessment of the deep aquifers of the northwestern part of the Bohemian Cretaceous basin, Czech Republic. <i>Geothermics</i> , 2011, 40, 112-124.	1.5	4
70	Socio-economic impacts of the pharmaceuticals detection and activated carbon treatment technology in water management – an example from the Czech Republic. <i>Water and Environment Journal</i> , 2019, 33, 67-76.	1.0	4
71	The properties of IgM-L pyroglobulin. <i>Clinica Chimica Acta</i> , 1972, 36, 363-368.	0.5	3
72	A short note on the nucleolar size and density in apoptotic leukemic granulocytic precursors (HL-60) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5		

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73	Artificial recharge of a shallow hard rock aquifer as a climate change mitigation method: model solution from the Czech Republic. <i>Modeling Earth Systems and Environment</i> , 2019, 5, 605-612.	1.9	3
74	The effect of 5-aminolevulinic acid-based photodynamic treatment (PDT) on nucleoli of leukemic granulocytic precursors represented by K562 blastic cells in vitro. <i>Medical Science Monitor</i> , 2004, 10, BR405-9.	0.5	3
75	Protein Changes in HL60 Leukemia Cells Associated with 5-Aminolevulinic Acid-based Photodynamic Therapy. Early Effects on Endoplasmic Reticulum Chaperones Å¶. <i>Photochemistry and Photobiology</i> , 2007, 72, 16-22.	1.3	2
76	A morphological and cytochemical note to the reversible intranucleolar translocation of AgNORs (silver stained nucleolus organizer regions) in early leukemic granulocytic progenitors represented by cultured K 562 cells. <i>Journal of Applied Biomedicine</i> , 2005, 3, 193-198.	0.6	2
77	Imatinib mesylate affects tyrosine kinase activity in both leukemic and normal primary mononuclear blood cells. <i>Journal of Applied Biomedicine</i> , 2006, 4, 95-104.	0.6	2
78	Artificial infiltration as an integrated water resources management tool. <i>WIT Transactions on Ecology and the Environment</i> , 2014, , .	0.0	2
79	Chapter 6 Gel-Type Techniques. <i>Journal of Chromatography Library</i> , 1979, 18, 113-131.	0.1	1
80	Separation of the Hageman factor fragment from human serum albumin by chromatography on Blue Sepharose CL-6B. <i>Biomedical Chromatography</i> , 1990, 4, 152-153.	0.8	1
81	Monoclonal Antibodies Against Human Antithrombin III. <i>Hybridoma</i> , 1991, 10, 633-640.	0.9	1
82	Nucleolar asynchrony observed in HL-60 leukemic granulocytic precursors resistant to 5-aminolaevulinic acid-based photodynamic treatment. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2002, 67, 201-203.	1.7	1
83	A note on the decreased number and loss of fibrillar centres in nucleoli of apoptotic HL-60 leukaemic granulocytic precursors produced by 5-aminolaevulinic acid-based photodynamic treatment. <i>Folia Biologica</i> , 2004, 50, 15-20.	0.8	1
84	Chapter 13 Preparative Electrophoresis in Gel Media. <i>Journal of Chromatography Library</i> , 1979, 18, 299-306.	0.1	0
85	Monoclonal antibodies against human hemopexin and their application. <i>Journal of Immunological Methods</i> , 1993, 161, 265-268.	0.6	0
86	Use of GIS for optimalization of human activity in a catchment area: An example of the Beauce region (France). <i>Environmental Geology</i> , 1994, 24, 22-27.	1.2	0
87	Impacts of heavy groundwater pumping on hydrogeological conditions in Libya: Past and present development and future prognosis on a regional scale. <i>Acta Geologica Polonica</i> , 2013, 63, 283-296.	0.9	0
88	VÅ½zkum vÅ½znamnÅ½ch zdrojÅ½ Ťesko-saskÅ½ch pÅ½eshraniÅ½ch podzemnÅ½ch vod. <i>VodohospodÅ½skÅ½ Technicko-ekonomickÅ½ Informace</i> , 2020, 62, 10.	0.0	0