

# Hoi-Ying N Holman

## List of Publications by Year in descending order

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93  
papers

4,838  
citations

168829

31  
h-index

107981

68  
g-index

96  
all docs

96  
docs citations

96  
times ranked

7012  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interplay of microbial communities with mineral environments in coralline algae. <i>Science of the Total Environment</i> , 2021, 757, 143877.	3.9	6
2	Gaussian processes for autonomous data acquisition at large-scale synchrotron and neutron facilities. <i>Nature Reviews Physics</i> , 2021, 3, 685-697.	11.9	44
3	Copper (II) Ion Action on Soil Bacteria. <i>Water, Air, and Soil Pollution</i> , 2021, 232, 1.	1.1	5
4	Micromundos biominerales en las algas rojas. <i>Revista Digital Universitaria</i> , 2021, 22, .	0.0	0
5	Towards high-throughput autonomous infrared spectromicroscopy. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2021, 77, C85-C85.	0.0	0
6	Autonomous adaptive data acquisition for scanning hyperspectral imaging. <i>Communications Biology</i> , 2020, 3, 684.	2.0	8
7	Tunable rainbow light trapping in ultrathin resonator arrays. <i>Light: Science and Applications</i> , 2020, 9, 194.	7.7	16
8	Lipid analysis of CO <sub>2</sub> -rich subsurface aquifers suggests an autotrophy-based deep biosphere with lysolipids enriched in CPR bacteria. <i>ISME Journal</i> , 2020, 14, 1547-1560.	4.4	29
9	Deconstruction of plant biomass by a <i>Cellulomonas</i> strain isolated from an ultra-basic (lignin-stripping) spring. <i>Archives of Microbiology</i> , 2020, 202, 1077-1084.	1.0	2
10	Mechanisms of soft tissue and protein preservation in <i>Tyrannosaurus rex</i> . <i>Scientific Reports</i> , 2019, 9, 15678.	1.6	27
11	INFLUENCE OF SODIUM ON ASSIMILATION PROCESS OF Cr(VI) AND Cu BY <i>ARTHROBACTER GLOBIFORMIS</i> 151B CHROMIUM-RESISTANT BACTERIUM. <i>European Chemical Bulletin</i> , 2019, 8, 128.	2.7	0
12	High pCO <sub>2</sub> -induced exopolysaccharide-rich ballasted aggregates of planktonic cyanobacteria could explain Paleoproterozoic carbon burial. <i>Nature Communications</i> , 2018, 9, 2116.	5.8	19
13	Exploring Biogeochemistry and Microbial Diversity of Extant Microbialites in Mexico and Cuba. <i>Frontiers in Microbiology</i> , 2018, 9, 510.	1.5	29
14	Towards Integrating Synchrotron FTIR Microscopy with Mass Spectrometry at the Berkeley Synchrotron Infrared Structural Biology (BSISB) Program. <i>Synchrotron Radiation News</i> , 2017, 30, 17-23.	0.2	1
15	Human age and skin physiology shape diversity and abundance of Archaea on skin. <i>Scientific Reports</i> , 2017, 7, 4039.	1.6	78
16	Longitudinal Shaping of Subwavelength Infrared Beams using Plasmonic Bull's-eye Structure with Concentric Slits. , 2017, , .		0
17	Microfluidic approaches to synchrotron radiation-based Fourier transform infrared (SR-FTIR) spectral microscopy of living biosystems. <i>Protein and Peptide Letters</i> , 2016, 23, 273-282.	0.4	35
18	Belowground Response to Drought in a Tropical Forest Soil. II. Change in Microbial Function Impacts Carbon Composition. <i>Frontiers in Microbiology</i> , 2016, 7, 323.	1.5	46

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19	IR-Live: fabrication of a low-cost plastic microfluidic device for infrared spectromicroscopy of living cells. <i>Lab on A Chip</i> , 2016, 16, 1644-1651.	3.1	25
20	Genome Sequence of the Alkaline-Tolerant <i>Cellulomonas</i> sp. Strain FA1. <i>Genome Announcements</i> , 2015, 3, .	0.8	4
21	Bimodal effect of hydrogen peroxide and oxidative events in nitrite-induced rapid root abscission by the water fern <i>Azolla pinnata</i> . <i>Frontiers in Plant Science</i> , 2015, 6, 518.	1.7	3
22	Structural characterization of a mixed-linkage glucan deficient mutant reveals alteration in cellulose microfibril orientation in rice coleoptile mesophyll cell walls. <i>Frontiers in Plant Science</i> , 2015, 6, 628.	1.7	24
23	Ambient Infrared Laser Ablation Mass Spectrometry (AIRLAB-MS) of Live Plant Tissue with Plume Capture by Continuous Flow Solvent Probe. <i>Analytical Chemistry</i> , 2015, 87, 2631-2638.	3.2	22
24	Diverse uncultivated ultra-small bacterial cells in groundwater. <i>Nature Communications</i> , 2015, 6, 6372.	5.8	342
25	Open-Channel Microfluidic Membrane Device for Long-Term FT-IR Spectromicroscopy of Live Adherent Cells. <i>Analytical Chemistry</i> , 2015, 87, 4601-4606.	3.2	26
26	Installing extra bicarbonate transporters in the cyanobacterium <i>Synechocystis</i> sp. PCC6803 enhances biomass production. <i>Metabolic Engineering</i> , 2015, 29, 76-85.	3.6	76
27	Coupling Genetic and Chemical Microbiome Profiling Reveals Heterogeneity of Archaeome and Bacteriome in Subsurface Biofilms That Are Dominated by the Same Archaeal Species. <i>PLoS ONE</i> , 2014, 9, e99801.	1.1	28
28	Synchrotron Chemical and Structural Analysis of <i>Tyrannosaurus rex</i> Blood Vessels: The Contribution of Collagen Hypercrosslinking to Tissue Longevity. <i>Microscopy and Microanalysis</i> , 2014, 20, 1430-1431.	0.2	2
29	Metabolic phenotyping of the cyanobacterium <i>Synechocystis</i> 6803 engineered for production of alkanes and free fatty acids. <i>Applied Energy</i> , 2013, 102, 850-859.	5.1	41
30	Tackling the minority: sulfate-reducing bacteria in an archaea-dominated subsurface biofilm. <i>ISME Journal</i> , 2013, 7, 635-651.	4.4	57
31	Synchrotron infrared imaging of advanced glycation endproducts (AGEs) in cardiac tissue from mice fed high glycemic diets. <i>Biomedical Spectroscopy and Imaging</i> , 2013, 2, 301-315.	1.2	18
32	Synchrotron Infrared Measurements of Protein Phosphorylation in Living Single PC12 Cells during Neuronal Differentiation. <i>Analytical Chemistry</i> , 2012, 84, 4118-4125.	3.2	57
33	Metagenome, metatranscriptome and single-cell sequencing reveal microbial response to Deepwater Horizon oil spill. <i>ISME Journal</i> , 2012, 6, 1715-1727.	4.4	547
34	Remediation of Chromium and Uranium Contamination by Microbial Activity. <i>Elements</i> , 2012, 8, 107-112.	0.5	54
35	Quantitative studies of long-term stable, top-down fabricated silicon nanowire pH sensors. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 107, 421-428.	1.1	31
36	Deep-sea bacteria enriched by oil and dispersant from the Deepwater Horizon spill. <i>Environmental Microbiology</i> , 2012, 14, 2405-2416.	1.8	275

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37	Effect of Zn(II) on the reduction and accumulation of Cr(VI) by <i>Arthrobacter</i> species. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2011, 38, 1803-1808.	1.4	3
38	2010 ALS Users' Meeting and Workshops. <i>Synchrotron Radiation News</i> , 2011, 24, 2-9.	0.2	0
39	Synchrotron Infrared Spectromicroscopy for Studying Chemistry of Microbial Activity in Geologic Materials. <i>Developments in Soil Science</i> , 2010, 34, 103-130.	0.5	5
40	Response of antioxidant defense system to chromium (VI)-induced cytotoxicity in human diploid cells. <i>BioMetals</i> , 2010, 23, 161-172.	1.8	13
41	Imaging Cell Wall Architecture in Single <i>Zinnia elegans</i> Tracheary Elements. <i>Plant Physiology</i> , 2010, 154, 121-133.	2.3	42
42	Deep-Sea Oil Plume Enriches Indigenous Oil-Degrading Bacteria. <i>Science</i> , 2010, 330, 204-208.	6.0	1,109
43	Ultrafast Self-Assembly of Microscale Particles by Open-Channel Flow. <i>Langmuir</i> , 2010, 26, 4661-4667.	1.6	38
44	Synchrotron IR Spectromicroscopy: Chemistry of Living Cells. <i>Analytical Chemistry</i> , 2010, 82, 8757-8765.	3.2	116
45	Infrared Spectromicroscopy: Probing Live Cellular Responses to Environmental Changes. <i>Synchrotron Radiation News</i> , 2010, 23, 12-19.	0.2	6
46	Chapter 13. Mid-Infrared Reflectivity of Mouse Atheromas: A Case Study. <i>Metal Ions in Life Sciences</i> , 2010, , 351-368.	1.0	0
47	Real-time molecular monitoring of chemical environment in obligate anaerobes during oxygen adaptive response. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 12599-12604.	3.3	38
48	Decomposition of Cr(V)-diols to Cr(III) Complexes by <i>Arthrobacter oxydans</i> . <i>Microbial Ecology</i> , 2009, 57, 360-366.	1.4	7
49	Real-Time Chemical Imaging of Bacterial Activity in Biofilms Using Open-Channel Microfluidics and Synchrotron FTIR Spectromicroscopy. <i>Analytical Chemistry</i> , 2009, 81, 8564-8570.	3.2	128
50	The Real-Time Behavior of Chromium in <i>Arthrobacter oxydans</i> . , 2009, , .		0
51	Biotechnology of Cr(VI) transformation into Cr(III) complexes. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2008, 278, 565-569.	0.7	8
52	Mid-infrared reflectivity of experimental atheromas. <i>Journal of Biomedical Optics</i> , 2008, 13, 030503.	1.4	22
53	Surface-Mediated Chromate-Resistant Mechanism of <i>Enterobacter Cloacae</i> Bacteria Investigated by Atomic Force Microscopy. <i>Langmuir</i> , 2007, 23, 4480-4485.	1.6	16
54	Rapid Water Sample Screening for Estrogenic Activity Using Live Yeast Cells. , 2007, , .		0

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55	Epithermal Neutron Activation Analysis of Cr(VI)-Reducer Basalt-Inhabiting Bacteria. Analytical Chemistry, 2006, 78, 6285-6290.	3.2	6
56	Salt Stress in <i>Desulfovibrio vulgaris</i> Hildenborough: an Integrated Genomics Approach. Journal of Bacteriology, 2006, 188, 4068-4078.	1.0	155
57	Probing the structure-function relationships of microbial systems by high-resolution in vitro atomic force microscopy. , 2006, , .		0
58	Developing a biosensor for estrogens in water samples: Study of the real-time response of live cells of the estrogen-sensitive yeast strain RMY/ER-ERE using fluorescence microscopy. Biosensors and Bioelectronics, 2006, 21, 1654-1658.	5.3	32
59	Effect of chromate action on morphology of basalt-inhabiting bacteria. Materials Science and Engineering C, 2006, 26, 610-612.	3.8	23
60	Chromium(V) complexes generated in <i>Arthrobacter oxydans</i> by simulation analysis of EPR spectra. Journal of Inorganic Biochemistry, 2006, 100, 1827-1833.	1.5	23
61	Characterization of chromium-induced apoptosis in cultured mammalian cells. Thermochemica Acta, 2006, 441, 8-15.	1.2	12
62	Synchrotron Radiation Infrared Spectromicroscopy: A Noninvasive Chemical Probe for Monitoring Biogeochemical Processes. Advances in Agronomy, 2006, 90, 79-127.	2.4	26
63	The effect of solvent dynamics on the low frequency collective motions of DNA in solution and unoriented films. Journal of Chemical Physics, 2006, 124, 224706.	1.2	9
64	Improving Risk Assessments for Manufactured Gas Plant Soils by Measuring PAH Availability. Integrated Environmental Assessment and Management, 2005, 1, 259.	1.6	9
65	Estimation of the Cellular Antioxidant Response to Chromium Action Using ESR Method. Scientific World Journal, The, 2004, 4, 785-794.	0.8	2
66	ENAA studies of chromium uptake by <i>Arthrobacter oxydans</i> . Journal of Radioanalytical and Nuclear Chemistry, 2004, 259, 527-531.	0.7	13
67	Effects of Cr(VI) long-term and low-dose action on mammalian antioxidant enzymes (an in vitro study). Journal of Inorganic Biochemistry, 2004, 98, 490-496.	1.5	30
68	Effect of Chromium(VI) Action on <i>Arthrobacter oxydans</i> . Current Microbiology, 2004, 49, 321-326.	1.0	75
69	Electron Tomographic Studies of Bacterial Structure and Function. Microscopy and Microanalysis, 2004, 10, 1184-1185.	0.2	1
70	Antioxidant Capacity of Cultured Mammalian Cells Estimated by ESR Method. Scientific World Journal, The, 2004, 4, 490-499.	0.8	3
71	Synchrotron-Based FTIR Spectromicroscopy: Cytotoxicity and Heating Considerations. Journal of Biological Physics, 2003, 29, 275-286.	0.7	44
72	Electron Spin Resonance Study of Chromium(V) Formation and Decomposition by Basalt-Inhabiting Bacteria. Environmental Science & Technology, 2003, 37, 4678-4684.	4.6	39

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73	Tracking Chemical Changes in a Live Cell: Biomedical Applications of SR-FTIR Spectromicroscopy. <i>Spectroscopy</i> , 2003, 17, 139-159.	0.8	56
74	A Calorimetric Characterization of Cr(VI)-Reducing <i>Arthrobacter oxydans</i> at Different Phases of the Cell Growth Cycle. <i>Scientific World Journal</i> , The, 2003, 3, 432-442.	0.8	6
75	Synchrotron infrared spectromicroscopy as a novel bioanalytical microprobe for individual living cells: cytotoxicity considerations. <i>Journal of Biomedical Optics</i> , 2002, 7, 417.	1.4	77
76	Evaluation of Gastrointestinal Solubilization of Petroleum Hydrocarbon Residues in Soil Using an In Vitro Physiologically Based Model. <i>Environmental Science &amp; Technology</i> , 2002, 36, 1281-1286.	4.6	26
77	Catalysis of PAH Biodegradation by Humic Acid Shown in Synchrotron Infrared Studies. <i>Environmental Science &amp; Technology</i> , 2002, 36, 1276-1280.	4.6	103
78	Capillary electrophoresis of Cr(VI) reducer <i>Arthrobacter oxydans</i> . <i>Biomedical Chromatography</i> , 2002, 16, 327-331.	0.8	14
79	Assessment of in-situ bioremediation at a refinery waste-contaminated site and an aviation gasoline contaminated site. <i>Biodegradation</i> , 2002, 13, 79-90.	1.5	29
80	Individual human cell responses to low doses of chemicals studied by synchrotron infrared spectromicroscopy. , 2000, , .		12
81	IR spectroscopic characteristics of cell cycle and cell death probed by synchrotron radiation based Fourier transform IR spectromicroscopy. <i>Biopolymers</i> , 2000, 57, 329-335.	1.2	205
82	Flow dynamics and potential for biodegradation of organic contaminants in fractured rock vadose zones. <i>Journal of Contaminant Hydrology</i> , 2000, 43, 63-90.	1.6	30
83	Low-Dose Responses to 2,3,7,8-Tetrachlorodibenzo-p-dioxin in Single Living Human Cells Measured by Synchrotron Infrared Spectromicroscopy. <i>Environmental Science &amp; Technology</i> , 2000, 34, 2513-2517.	4.6	43
84	IR spectroscopic characteristics of cell cycle and cell death probed by synchrotron radiation based Fourier transform IR spectromicroscopy. <i>Biopolymers</i> , 2000, 57, 329-335.	1.2	3
85	Real-Time Characterization of Biogeochemical Reduction of Cr(VI) on Basalt Surfaces by SR-FTIR Imaging. <i>Geomicrobiology Journal</i> , 1999, 16, 307-324.	1.0	72
86	Mineralization of Sparsely Water-Soluble Polycyclic Aromatic Hydrocarbons in a Water Table Fluctuation Zone. <i>Environmental Science &amp; Technology</i> , 1999, 33, 1819-1824.	4.6	13
87	<title>Detecting exposure to environmental organic toxins in individual cells: toward development of a microfabricated device</title>. , 1999, , .		4
88	Surface-enhanced infrared absorption-reflectance (SEIRA) microspectroscopy for bacteria localization on geologic material surfaces. <i>Journal of Microbiological Methods</i> , 1998, 34, 59-71.	0.7	31
89	Applications of Synchrotron Infrared Microspectroscopy to the Study of Inorganic-Organic Interactions at the Bacterial- Mineral Interface. <i>Materials Research Society Symposia Proceedings</i> , 1998, 524, 17.	0.1	4
90	Evaluation of Transient Dissolution of Slightly Water-Soluble Compounds From a Light Nonaqueous Phase Liquid Pool. <i>Water Resources Research</i> , 1996, 32, 915-923.	1.7	41

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91	On the potential importance of transient air flow in advective radon entry into buildings. Geophysical Research Letters, 1990, 17, 821-824.	1.5	22
92	Comparison of the observed and predicted visual effects caused by power plant plumes. Atmospheric Environment, 1981, 15, 2135-2150.	1.1	12
93	Bioremediation potential of hexavalent chromium-resistant <i>Arthrobacter globiformis</i> 151B: study of the uptake of cesium and other alkali ions. International Microbiology, 0, , .	1.1	0