

Xiaodong Zhang

List of Publications by Year in descending order

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62
papers

1,913
citations

331670

21
h-index

265206

42
g-index

62
all docs

62
docs citations

62
times ranked

1648
citing authors

#	ARTICLE	IF	CITATIONS
1	Alignment of optical backscatter measurements from the EXPORTS Northeast Pacific Field Deployment. <i>Elementa</i> , 2022, 10, .	3.2	3
2	An operational overview of the EXport Processes in the Ocean from RemoTe Sensing (EXPORTS) Northeast Pacific field deployment. <i>Elementa</i> , 2021, 9, .	3.2	28
3	Shape of particle backscattering in the North Pacific Ocean: the β factor. <i>Applied Optics</i> , 2021, 60, 1260.	1.8	7
4	Assessment of Normalized Water-Leaving Radiance Derived from GOCI Using AERONET-OC Data. <i>Remote Sensing</i> , 2021, 13, 1640.	4.0	7
5	Automatic Calibration for CE-QUAL-W2 Model Using Improved Global-Best Harmony Search Algorithm. <i>Water (Switzerland)</i> , 2021, 13, 2308.	2.7	5
6	A three-step semi analytical algorithm (3SAA) for estimating inherent optical properties over oceanic, coastal, and inland waters from remote sensing reflectance. <i>Remote Sensing of Environment</i> , 2021, 263, 112537.	11.0	18
7	Deriving the angular response function for backscattering sensors. <i>Applied Optics</i> , 2021, 60, 8676.	1.8	7
8	Light Scattering by Pure Water and Seawater: Recent Development. <i>Journal of Remote Sensing</i> , 2021, 2021, .	6.7	5
9	A closure study of ocean inherent optical properties using flow cytometry measurements. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020, 241, 106730.	2.3	3
10	Light scattering by pure seawater at subzero temperatures. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2020, 162, 103306.	1.4	8
11	Changes in Regional Snowfall in Central North America (1961â€”2017): Mountain Versus Plains. <i>Geosciences (Switzerland)</i> , 2020, 10, 157.	2.2	6
12	Mitigating Impact of Devils Lake Flooding on the Sheyenne River Sulfate Concentration. <i>Journal of the American Water Resources Association</i> , 2020, 56, 297-309.	2.4	4
13	Experimental Estimates of Optical Backscattering Associated With Submicron Particles in Clear Oceanic Waters. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087100.	4.0	21
14	Variability of relationship between the volume scattering function at 180° and the backscattering coefficient for aquatic particles. <i>Applied Optics</i> , 2020, 59, C31.	1.8	8
15	Modeling Atmosphere-Ocean Radiative Transfer: A PACE Mission Perspective. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	37
16	Light scattering by pure seawater: Effect of pressure. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2019, 146, 103-109.	1.4	20
17	Retrieval of Phytoplankton Pigments from Underway Spectrophotometry in the Fram Strait. <i>Remote Sensing</i> , 2019, 11, 318.	4.0	16
18	Macro-scale grid-based and subbasin-based hydrologic modeling: joint simulation and cross-calibration. <i>Journal of Hydroinformatics</i> , 2019, 21, 77-91.	2.4	10

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19	Light scattering by pure water and seawater: the depolarization ratio and its variation with salinity. <i>Applied Optics</i> , 2019, 58, 991.	1.8	18
20	Calibration of the LISST-VSF to derive the volume scattering functions in clear waters. <i>Optics Express</i> , 2019, 27, A1188.	3.4	15
21	An overview of approaches and challenges for retrieving marine inherent optical properties from ocean color remote sensing. <i>Progress in Oceanography</i> , 2018, 160, 186-212.	3.2	257
22	A Brief Review of Mueller Matrix Calculations Associated with Oceanic Particles. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2686.	2.5	4
23	Anomalous Light Scattering by Pure Seawater. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2679.	2.5	7
24	SWAT Modeling of Non-Point Source Pollution in Depression-Dominated Basins under Varying Hydroclimatic Conditions. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 2492.	2.6	24
25	Diel variations of the attenuation, backscattering and absorption coefficients of four phytoplankton species and comparison with spherical, coated spherical and hexahedral particle optical models. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 217, 288-304.	2.3	24
26	Identifying the Driving Factors of Water Quality in a Sub-Watershed of the Republican River Basin, Kansas USA. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 1041.	2.6	6
27	Modeling the inherent optical properties of aquatic particles using an irregular hexahedral ensemble. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017, 191, 30-39.	2.3	19
28	Size distributions of coastal ocean suspended particulate inorganic matter: Amorphous silica and clay minerals and their dynamics. <i>Estuarine, Coastal and Shelf Science</i> , 2017, 189, 243-251.	2.1	8
29	A Bidirectional Subsurface Remote Sensing Reflectance Model Explicitly Accounting for Particle Backscattering Shapes. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 8614-8626.	2.6	10
30	Modeling Water Quantity and Sulfate Concentrations in the Devils Lake Watershed Using Coupled SWAT and CEQUAL-W2. <i>Journal of the American Water Resources Association</i> , 2017, 53, 748-760.	2.4	16
31	Re-examining the effect of particle phase functions on the remote-sensing reflectance. <i>Applied Optics</i> , 2017, 56, 6881.	1.8	9
32	Interpretation of scattering by oceanic particles around 120 degrees and its implication in ocean color studies. <i>Optics Express</i> , 2017, 25, A191.	3.4	13
33	Physical-geometric optics method for large size faceted particles. <i>Optics Express</i> , 2017, 25, 24044.	3.4	52
34	Evaluating flood potential with GRACE in the United States. <i>Natural Hazards and Earth System Sciences</i> , 2016, 16, 1011-1018.	3.6	23
35	Backscattering by very small particles in coastal waters. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 6914-6926.	2.6	17
36	A theoretical study of the effect of subsurface oceanic bubbles on the enhanced aerosol optical depth band over the southern oceans as detected from MODIS and MISR. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 2149-2160.	3.1	3

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37	Inversion of spectral absorption coefficients to infer phytoplankton size classes, chlorophyll concentration, and detrital matter. Applied Optics, 2015, 54, 5805.	2.1	28
38	Significance of scattering by oceanic particles at angles around 120 degree. Optics Express, 2014, 22, 31329.	3.4	29
39	New insight into particulate mineral and organic matter in coastal ocean waters through optical inversion. Estuarine, Coastal and Shelf Science, 2014, 149, 1-12.	2.1	43
40	TECHNOLOGICAL INNOVATIONS BRINGING SPATIAL TECHNOLOGY TO PRECISION AGRICULTURE IN THE NORTHERN GREAT PLAINS. Technology and Innovation, 2014, 16, 27-35.	0.2	0
41	Biogeochemical origins of particles obtained from the inversion of the volume scattering function and spectral absorption in coastal waters. Biogeosciences, 2013, 10, 6029-6043.	3.3	23
42	Estimating Surface Soil Water Content in the Red River Valley of the North using Landsat 5 TM Data. Soil Science Society of America Journal, 2013, 77, 1133-1143.	2.2	9
43	Molecular light scattering by pure seawater. , 2013, , 225-243.		1
44	Comparison of optically derived particle size distributions: scattering over the full angular range versus diffraction at near forward angles. Applied Optics, 2012, 51, 5085.	1.8	37
45	Effects of Subsurface Drainage on Evapotranspiration for Corn and Soybean Crops in Southeastern North Dakota. Journal of Irrigation and Drainage Engineering - ASCE, 2012, 138, 1060-1067.	1.0	21
46	The optical volume scattering function in a surf zone inverted to derive sediment and bubble particle subpopulations. Journal of Geophysical Research, 2012, 117, .	3.3	62
47	Retrieving composition and sizes of oceanic particle subpopulations from the volume scattering function. Applied Optics, 2011, 50, 1240.	2.1	59
48	Near real-time high-resolution airborne camera, AEROCam, for precision agriculture. Geocarto International, 2011, 26, 537-551.	3.5	4
49	Zone mapping application for precision-farming: a decision support tool for variable rate application. Precision Agriculture, 2010, 11, 103-114.	6.0	64
50	Radiometric Calibration for AgCam. Remote Sensing, 2010, 2, 464-477.	4.0	37
51	Digital Northern Great Plains: A Web-Based System Delivering Near Real Time Remote Sensing Data for Precision Agriculture. Remote Sensing, 2010, 2, 861-873.	4.0	12
52	Effects of temperature and salinity on light scattering by water. Proceedings of SPIE, 2010, , .	0.8	7
53	Evaluation of MOST functions and roughness length parameterization on sensible heat flux measured by large aperture scintillometer over a corn field. Agricultural and Forest Meteorology, 2010, 150, 1182-1191.	4.8	9
54	Providing Precision Crop and Range Protection in the US Northern Great Plains. , 2010, , 367-384.		0

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55	Estimating scattering of pure water from density fluctuation of the refractive index. Optics Express, 2009, 17, 1671.	3.4	92
56	Scattering by pure seawater: Effect of salinity. Optics Express, 2009, 17, 5698.	3.4	308
57	Scattering by pure seawater at high salinity. Optics Express, 2009, 17, 12685.	3.4	57
58	Scattering by solutions of major sea salts. Optics Express, 2009, 17, 19580.	3.4	20
59	Optical influence of ship wakes. Applied Optics, 2004, 43, 3122.	2.1	33
60	The volume scattering function of natural bubble populations. Limnology and Oceanography, 2002, 47, 1273-1282.	3.1	89
61	Influence of bubbles on scattering of light in the ocean. Applied Optics, 1998, 37, 6525.	2.1	129
62	A method for tracking the Brownian motion to estimate the size distribution of submicron particles in seawater. Limnology and Oceanography: Methods, 0, , .	2.0	2