Ira Leifer

List of Publications by Year
in descending order

88 papers	4,058 citations	117625 34 h-index	123424 61 g-index
119 all docs	119 docs citations	119 times ranked	3501 citing authors

#	Article	IF	Citations
1	State of the art satellite and airborne marine oil spill remote sensing: Application to the BP Deepwater Horizon oil spill. Remote Sensing of Environment, 2012, 124, 185-209.	11.0	412
2	Ebullition and storm-induced methane release from the East Siberian Arctic Shelf. Nature Geoscience, 2014, 7, 64-70.	12.9	283
3	The bubble mechanism for methane transport from the shallow sea bed to the surface: A review and sensitivity study. Continental Shelf Research, 2002, 22, 2409-2428.	1.8	265
4	Magnitude and oxidation potential of hydrocarbon gases released from the BP oil well blowout. Nature Geoscience, 2011, 4, 160-164.	12.9	214
5	Considerable methane fluxes to the atmosphere from hydrocarbon seeps in the Gulf of Mexico. Nature Geoscience, 2009, 2, 561-565.	12.9	174
6	Dynamics of the gas flux from shallow gas hydrate deposits: interaction between oily hydrate bubbles and the oceanic environment. Earth and Planetary Science Letters, 2003, 210, 411-424.	4.4	144
7	Real-time remote detection and measurement for airborne imaging spectroscopy: a case study with methane. Atmospheric Measurement Techniques, 2015, 8, 4383-4397.	3.1	111
8	Controls on methane bubble dissolution inside and outside the hydrate stability field from open ocean field experiments and numerical modeling. Marine Chemistry, 2009, 114, 19-30.	2.3	110
9	Effects of climate change on methane emissions from seafloor sediments in the Arctic Ocean: A review. Limnology and Oceanography, 2016, 61, S283.	3.1	109
10	Natural marine seepage blowout: Contribution to atmospheric methane. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	4.9	106
11	A Study on the Temperature Variation of Rise Velocity for Large Clean Bubbles. Journal of Atmospheric and Oceanic Technology, 2000, 17, 1392-1402.	1.3	97
12	Measurement of marine hydrocarbon seep flow through fractured rock and unconsolidated sediment. Marine and Petroleum Geology, 2005, 22, 551-568.	3.3	82
13	Modifications of the local environment by natural marine hydrocarbon seeps. Geophysical Research Letters, 2000, 27, 3711-3714.	4.0	79
14	Bacterial diversity in marine hydrocarbon seep sediments. Environmental Microbiology, 2004, 6, 799-808.	3.8	71
15	Optical Measurement of Bubbles: System Design and Application. Journal of Atmospheric and Oceanic Technology, 2003, 20, 1317-1332.	1.3	68
16	Airborne visualization and quantification of discrete methane sources in the environment. Remote Sensing of Environment, 2014, 154, 74-88.	11.0	67
17	Oceanic methane layers: the hydrocarbon seep bubble deposition hypothesis. Terra Nova, 2002, 14, 417-424.	2.1	64
18	Mapping methane emissions from a marine geological seep source using imaging spectrometry. Remote Sensing of Environment, 2010, 114, 592-606.	11.0	62

#	Article	IF	Citations
19	Oil slick morphology derived from AVIRIS measurements of the Deepwater Horizon oil spill: Implications for spatial resolution requirements of remote sensors. Marine Pollution Bulletin, 2016, 103, 276-285.	5.0	62
20	High resolution mapping of methane emissions from marine and terrestrial sources using a Cluster-Tuned Matched Filter technique and imaging spectrometry. Remote Sensing of Environment, 2013, 134, 305-318.	11.0	61
21	Geologic control of natural marine hydrocarbon seep emissions, Coal Oil Point seep field, California. Geo-Marine Letters, 2010, 30, 331-338.	1.1	50
22	The acoustic signature of marine seep bubbles. Journal of the Acoustical Society of America, 2007, 121, EL35-EL40.	1.1	49
23	Dynamic morphology of gas hydrate on a methane bubble in water: Observations and new insights for hydrate film models. Geophysical Research Letters, 2014, 41, 6841-6847.	4.0	46
24	Formation of seep bubble plumes in the Coal Oil Point seep field. Geo-Marine Letters, 2010, 30, 339-353.	1.1	45
25	The UK22/4b blowout 20 years on: Investigations of continuing methane emissions from sub-seabed to the atmosphere in a North Sea context. Marine and Petroleum Geology, 2015, 68, 706-717.	3.3	44
26	Shallow seabed methane gas could pose coastal hazard. Eos, 2006, 87, 213.	0.1	43
27	Biochemical effects of petroleum exposure in hornyhead turbot (Pleuronichthys verticalis) exposed to a gradient of sediments collected from a natural petroleum seep in CA, USA. Aquatic Toxicology, 2003, 65, 159-169.	4.0	41
28	Detection of marine methane emissions with AVIRIS band ratios. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	40
29	Compositional changes in natural gas bubble plumes: observations from the Coal Oil Point marine hydrocarbon seep field. Geo-Marine Letters, 2003, 23, 187-193.	1.1	39
30	Engineered and Natural Marine Seep, Bubble-Driven Buoyancy Flows. Journal of Physical Oceanography, 2009, 39, 3071-3090.	1.7	39
31	Turbine tent measurements of marine hydrocarbon seeps on subhourly timescales. Journal of Geophysical Research, 2005, 110, .	3.3	37
32	Characteristics and scaling of bubble plumes from marine hydrocarbon seepage in the Coal Oil Point seep field. Journal of Geophysical Research, 2010, 115, .	3.3	37
33	Methane emissions from aÂCalifornian landfill, determined from airborne remote sensing and in situ measurements. Atmospheric Measurement Techniques, 2017, 10, 3429-3452.	3.1	36
34	Transcontinental methane measurements: Part 1. A mobile surface platform for source investigations. Atmospheric Environment, 2013, 74, 422-431.	4.1	35
35	Long-term acoustic monitoring at North Sea well site 22/4b. Marine and Petroleum Geology, 2015, 68, 776-788.	3.3	35
36	Tracking an oil slick from multiple natural sources, Coal Oil Point, California. Marine and Petroleum Geology, 2006, 23, 621-630.	3.3	34

#	Article	IF	Citations
37	Remote sensing estimation of surface oil volume during the 2010 Deepwater Horizon oil blowout in the Gulf of Mexico: scaling up AVIRIS observations with MODIS measurements. Journal of Applied Remote Sensing, 2018, 12, 1.	1.3	34
38	Performance evaluation of a 16-Âµm methane DIAL system from ground, aircraft and UAV platforms. Optics Express, 2013, 21, 30415.	3.4	33
39	Bubbles generated from wind-steepened breaking waves: 1. Bubble plume bubbles. Journal of Geophysical Research, 2006, 111, .	3.3	32
40	Secondary bubble production from breaking waves: The bubble burst mechanism. Geophysical Research Letters, 2000, 27, 4077-4080.	4.0	30
41	Was the Deepwater Horizon Well Discharge Churn Flow? Implications on the Estimation of the Oil Discharge and Droplet Size Distribution. Geophysical Research Letters, 2018, 45, 2396-2403.	4.0	29
42	Calibrating optical bubble size by the displaced-mass method. Chemical Engineering Science, 2003, 58, 5211-5216.	3.8	27
43	Seabed bubble flux estimation by calibrated video survey for a large blowout seep in the North Sea. Marine and Petroleum Geology, 2015, 68, 743-752.	3.3	27
44	The fate of bubbles in a large, intense bubble megaplume for stratified and unstratified water: Numerical simulations of 22/4b expedition field data. Marine and Petroleum Geology, 2015, 68, 806-823.	3.3	27
45	A Synthesis Review of Emissions and Fates for the Coal Oil Point Marine Hydrocarbon Seep Field and California Marine Seepage. Geofluids, 2019, 2019, 1-48.	0.7	25
46	In situ sensing of methane emissions from natural marine hydrocarbon seeps: A potential remote sensing technology. Earth and Planetary Science Letters, 2006, 245, 509-522.	4.4	24
47	Google Earth and Google Fusion Tables in support of time-critical collaboration: Mapping the deepwater horizon oil spill with the AVIRIS airborne spectrometer. Earth Science Informatics, 2011, 4, 169-179.	3.2	24
48	Comment on â€œA Persistent Oxygen Anomaly Reveals the Fate of Spilled Methane in the Deep Gulf of Mexicoâ€• Science, 2011, 332, 1033-1033.	12.6	23
49	Megaplume bubble process visualization by 3D multibeam sonar mapping. Marine and Petroleum Geology, 2015, 68, 753-765.	3.3	23
50	Bubbles generated from wind-steepened breaking waves: 2. Bubble plumes, bubbles, and wave characteristics. Journal of Geophysical Research, 2006, 111, .	3.3	22
51	Beach tar accumulation, transport mechanisms, and sources of variability at Coal Oil Point, California. Marine Pollution Bulletin, 2007, 54, 1461-1471.	5.0	22
52	Transcontinental methane measurements: Part 2. Mobile surface investigation of fossil fuel industrial fugitive emissions. Atmospheric Environment, 2013, 74, 432-441.	4.1	22
53	Sonar gas flux estimation by bubble insonification: application to methane bubble flux from seep areas in the outer Laptev Sea. Cryosphere, 2017, 11, 1333-1350.	3.9	22
54	Bubble Transport Mechanism: Indications for a gas bubble-mediated inoculation of benthic methanotrophs into the water column. Continental Shelf Research, 2015, 103, 70-78.	1.8	21

#	Article	IF	Citations
55	Long-term monitoring of a marine geologic hydrocarbon source by a coastal air pollution station in Southern California. Atmospheric Environment, 2010, 44, 4973-4981.	4.1	20
56	The tidal influence on oil and gas emissions from an abandoned oil well: Nearshore Summerland, California. Marine Pollution Bulletin, 2007, 54, 1495-1506.	5.0	19
57	Remote sensing and in situ measurements of methane and ammonia emissions from a megacity dairy complex: Chino, CA. Environmental Pollution, 2017, 221, 37-51.	7.5	19
58	Better Bubble Process Modeling: Improved Bubble Hydrodynamics Parameterization. Geophysical Monograph Series, 0, , 315-320.	0.1	17
59	Field demonstration of a novel towed, area bubble-plume zooplankton (Calanus sp.) harvester. Fisheries Research, 2011, 107, 147-158.	1.7	13
60	Bubble Measurements in Breaking-Wave Generated Bubble Plumes During the LUMINY Wind-Wave Experiment. Geophysical Monograph Series, 0, , 303-309.	0.1	13
61	Atmospheric characterization through fused mobile airborne and surface in situ surveys: methane emissions quantification from a producing oil field. Atmospheric Measurement Techniques, 2018, 11, 1689-1705.	3.1	13
62	Oil at seaâ€”how much is too much?. Science, 2022, 376, 1266-1267.	12.6	11
63	Bubbles Outside the Plume During the LUMINY Wind-Wave Experiment. Geophysical Monograph Series, 0, , 295-301.	0.1	9
64	Bubble momentum plume as a possible mechanism for an early breakdown of the seasonal stratification in the northern North Sea. Marine and Petroleum Geology, 2015, 68, 789-805.	3.3	9
65	Validation of mobile in situ measurements of dairy husbandry emissions by fusion of airborne/surface remote sensing with seasonalÂcontext from the Chino Dairy Complex. Environmental Pollution, 2018, 242, 2111-2134.	7.5	9
66	Bubble-mediated transport of benthic microorganisms into the water column: Identification of methanotrophs and implication of seepage intensity on transport efficiency. Scientific Reports, 2020, 10, 4682.	3.3	9
67	Pneumatic oil barriers: The promise of area bubble plumes. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2013, 227, 22-38.	0.5	8
68	Challenges in Methane Column Retrievals from AVIRIS-NG Imagery over Spectrally Cluttered Surfaces: A Sensitivity Analysis. Remote Sensing, 2017, 9, 835.	4.0	7
69	Characteristics of bubble plumes, bubble-plume bubbles and waves from wind-steepened wave breaking. Journal of Marine Systems, 2007, 66, 61-70.	2.1	6
70	Air pollution inputs to the Mojave Desert by fusing surface mobile and airborne in situ and airborne and satellite remote sensing: A case study of interbasin transport with numerical model validation. Atmospheric Environment, 2020, 224, 117184.	4.1	6
71	Quantified Marine Oil Emissions with a Video-Monitored, Oil Seep-Tent. Marine Technology Society Journal, 2004, 38, 44-53.	0.4	5
72	Remote sensing atmospheric trace gases with infrared imaging spectroscopy. Eos, 2012, 93, 525-525.	0.1	4

#	Article	IF	Citations
73	Estimating exposure to hydrogen sulfide from animal husbandry operations using satellite ammonia as a proxy: Methodology demonstration. Science of the Total Environment, 2020, 709, 134508.	8.0	4
74	FACTORS AFFECTING MARINE HYDROCARBON EMISSIONS IN AN AREA OF NATURAL SEEPS AND ABANDONED OIL WELLS - SUMMERLAND, CALIFORNIA. International Oil Spill Conference Proceedings, 2005, 2005, 849-853.	0.1	4
75	Long-term atmospheric emissions for the Coal Oil Point natural marine hydrocarbon seep field, offshore California. Atmospheric Chemistry and Physics, 2021, 21, 17607-17629.	4.9	4
76	Using mobile surface in situ and remote sensing and airborne remote sensing to derive emissions from a producing central California oil field in complex terrain. Atmospheric Pollution Research, 2021, 12, 101145.	3.8	3
77	Time Evolution Of Beach Tar, Oil Slicks, And Seeps In The Coal Oil Point Seep Field, Santa Barbara Channel, California. International Oil Spill Conference Proceedings, 2005, 2005, 855-860.	0.1	3
78	Measuring Floating Thick Seep Oil from the Coal Oil Point Marine Hydrocarbon Seep Field by Quantitative Thermal Oil Slick Remote Sensing. Remote Sensing, 2022, 14, 2813.	4.0	3
79	Two Decades of Community Research on Gas in Shallow Marine Sediments. Eos, 2011, 92, 128-128.	0.1	2
80	Life Aquatic Chemosynthetic in the Photic Zone -Up the Food Chain?. Oceanography & Fisheries Open Access Journal, 2017, 4, .	0.1	2
81	Validation of in situ and remote sensing-derived methane refinery emissions in a complex wind environment and chemical implications. Atmospheric Environment, 2022, 273, 118900.	4.1	2
82	An inverse planned oil release validation method for estimating oil slick thickness from thermal contrast remote sensing by in-scene calibration. MethodsX, 2022, , 101756.	1.6	2
83	Fusion of Mobile In situ and Satellite Remote Sensing Observations of Chemical Release Emissions to Improve Disaster Response. Frontiers in Environmental Science, 2016, 4, .	3.3	1
84	Reduced Methane Emissions from Santa Barbara Marine Seeps. Remote Sensing, 2017, 9, 1162.	4.0	1
85	Editorial: Recent Advances in Natural Methane Seep and Gas Hydrate Systems. Frontiers in Earth Science, 2022, 10, .	1.8	1
86	Tracking Seep Oil from Seabed to Sea Surface and Beyond at Coal Oil Point, California. , 2005, , 1005.		0
87	Recent advances in remote sensing technologies for hydrocarbon exploration and environmental evaluation. The Leading Edge, 2019, 38, 554-555.	0.7	0
88	Multiâ€Order Carbon Spectral Imager: A Sensor Concept for Carbon Cycle Investigations. Earth and Space Science, 2019, 6, 990-1003.	2.6	0