Alexei V Milkov

List of Publications by Year in Descending Order

68 papers	4,667 citations	33 h-index	68 g-index
68 ext. papers	5,218 ext. citations	4.2 avg, IF	6.22 L-index

#	Paper	IF	Citations
68	Petroleum exploration portfolios generated with different optimization approaches: Lessons for decision-makers. *Journal of Petroleum Science and Engineering*, **2022**, 110459	4.4	1
67	Assessing the sealing quality of submarine mass transport complexes and deposits. *Marine and Petroleum Geology*, **2022**, 105748	4.7	0
66	Molecular hydrogen in surface and subsurface natural gases: Abundance, origins and ideas for deliberate exploration. *Earth-Science Reviews*, **2022**, 230, 104063	10.2	1
65	Deepest oil in Asia: Characteristics of petroleum system in the Tarim basin, China. *Journal of Petroleum Science and Engineering*, **2021**, 199, 108246	4.4	16
64	New approaches to distinguish shale-sourced and coal-sourced gases in petroleum systems. *Organic Geochemistry*, **2021**, 158, 104271	3.1	4
63	Reporting the expected exploration outcome: When, why and how the probability of geological success and success-case volumes for the well differ from those for the prospect. *Journal of Petroleum Science and Engineering*, **2021**, 204, 108754	4.4	4
62	Comprehensive Molecular Compositions and Origins of DB301 Crude Oil from Deep Strata, Tarim Basin, China. *Energy & Fuels*, **2020**, 34, 6799-6810	4.1	6
61	Using global isotopic data to constrain the role of shale gas production in recent increases in atmospheric methane. *Scientific Reports*, **2020**, 10, 4199	4.9	16
60	Reply to the comment by Iyer and Schmid on Thickness matters: Influence of dolerite sills on the thermal maturity of surrounding rocks in a coal bed methane play in Botswana by Bulguroglu, M.E., Milkov, A.V., Marine and Petroleum Geology 111 (2020), 219-229. *Marine and Petroleum Geology*, **2020**, 115, 104300	4.7	
59	Geochemistry of shale gases from around the world: Composition, origins, isotope reversals and rollovers, and implications for the exploration of shale plays. *Organic Geochemistry*, **2020**, 143, 103997	3.1	35
58	Secondary Microbial Gas **2020**, 613-622		1
57	Turning dry holes from disasters to exploration wisdom: Decision tree to determine the key failure mode for segments in conventional petroleum prospects. *AAPG Bulletin*, **2020**, 104, 449-475	2.5	7
56	FORECASTING ABILITIES OF INDIVIDUAL PETROLEUM EXPLORERS: PRELIMINARY FINDINGS FROM CROWDSOURCED PROSPECT ASSESSMENTS. *Journal of Petroleum Geology*, **2020**, 43, 383-400	1.9	3
55	Breathing new life into postmortem analysis: Identification of key failure modes for conventional petroleum segments offshore New Zealand. *Marine and Petroleum Geology*, **2020**, 122, 104618	4.7	3
54	Web-based machine learning tool that determines the origin of natural gases. *Computers and Geosciences*, **2020**, 145, 104595	4.5	13
53	Thickness matters: Influence of dolerite sills on the thermal maturity of surrounding rocks in a coal bed methane play in Botswana. *Marine and Petroleum Geology*, **2020**, 111, 219-229	4.7	7
52	Diamondoids as tracers of late gas charge in oil reservoirs: Example from the Tazhong area, Tarim Basin, China. *Fuel*, **2019**, 253, 998-1017	7.1	17

51	Formation and preservation of a giant petroleum accumulation in superdeep carbonate reservoirs in the southern Halahatang oil field area, Tarim Basin, China. *AAPG Bulletin*, **2019**, 103, 1703-1743	2.5	22
50	Origin of Shale Gases from Around the World: Implications for Exploration **2019**,		2
49	Non-cracked oil in ultra-deep high-temperature reservoirs in the Tarim basin, China. *Marine and Petroleum Geology*, **2018**, 89, 252-262	4.7	40
48	Secondary Microbial Gas **2018**, 1-10		7
47	Revised genetic diagrams for natural gases based on a global dataset of >20,000 samples. *Organic Geochemistry*, **2018**, 125, 109-120	3.1	186
46	Geochemistry of Petroleum Gases and Liquids from the Inhassoro, Pande and Temane Fields Onshore Mozambique. *Geosciences (Switzerland)*, **2017**, 7, 33	2.7	8
45	Integrate instead of ignoring: Base rate neglect as a common fallacy of petroleum explorers. *AAPG Bulletin*, **2017**, 101, 1905-1916	2.5	9
44	Risk tables for less biased and more consistent estimation of probability of geological success (PoS) for segments with conventional oil and gas prospective resources. *Earth-Science Reviews*, **2015**, 150, 453-476	10.2	26
43	Stability of Thermogenic Gas Hydrate in the Gulf of Mexico: Constraints on Models of Climate Change. *Geophysical Monograph Series*, **2013**, 131-143	1.1	17
42	Worldwide distribution and significance of secondary microbial methane formed during petroleum biodegradation in conventional reservoirs. *Organic Geochemistry*, **2011**, 42, 184-207	3.1	151
41	Methanogenic biodegradation of petroleum in the West Siberian Basin (Russia): Significance for formation of giant Cenomanian gas pools. *AAPG Bulletin*, **2010**, 94, 1485-1541	2.5	49
40	Evidence of subsurface anaerobic biodegradation of hydrocarbons and potential secondary methanogenesis in terrestrial mud volcanoes. *Marine and Petroleum Geology*, **2009**, 26, 1692-1703	4.7	87
39	Did geologic emissions of methane play any role in Quaternary climate change?. *Global and Planetary Change*, **2008**, 61, 79-88	4.2	40
38	Compartmentalization and time-lapse geochemical reservoir surveillance of the Horn Mountain oil field, deep-water Gulf of Mexico. *AAPG Bulletin*, **2007**, 91, 847-876	2.5	33
37	Geochemical evidence of secondary microbial methane from very slight biodegradation of undersaturated oils in a deep hot reservoir. *Geology*, **2007**, 35, 455	5	52
36	Global Distribution of Mud Volcanoes and Their Significance in Petroleum Exploration as a Source of Methane in the Atmosphere and Hydrosphere and as a Geohazard **2005**, 29-34		16
35	Gas hydrate systems at Hydrate Ridge offshore Oregon inferred from molecular and isotopic properties of hydrate-bound and void gases. *Geochimica Et Cosmochimica Acta*, **2005**, 69, 1007-1026	5.5	85
34	Comment on "Gas hydrate growth, methane transport, and chloride enrichment at the southern summit of Hydrate Ridge, Cascadia margin off Oregon" by Torres et al. [Earth Planet. Sci. Lett. 226 (2004) 225–241]. *Earth and Planetary Science Letters*, **2005**, 239, 162-167	5.3	8

33	Molecular and stable isotope compositions of natural gas hydrates: A revised global dataset and basic interpretations in the context of geological settings. *Organic Geochemistry*, **2005**, 36, 681-702	3.1	191
32	Global methane emission through mud volcanoes and its past and present impact on the Earth climate comment. *International Journal of Earth Sciences*, **2005**, 94, 490-492	2.2	16
31	Methane emission from mud volcanoes in eastern Azerbaijan. *Geology*, **2004**, 32, 465	5	62
30	Global estimates of hydrate-bound gas in marine sediments: how much is really out there?. *Earth-Science Reviews*, **2004**, 66, 183-197	10.2	713
29	A new estimate of global methane flux from onshore and shallow submarine mud volcanoes to the atmosphere. *Environmental Geology*, **2004**, 46, 997-1002		137
28	Co-existence of gas hydrate, free gas, and brine within the regional gas hydrate stability zone at Hydrate Ridge (Oregon margin): evidence from prolonged degassing of a pressurized core. *Earth and Planetary Science Letters*, **2004**, 222, 829-829	5.3	0
27	Geological, geochemical, and microbial processes at the hydrate-bearing Håkon Mosby mud volcano: a review. *Chemical Geology*, **2004**, 205, 347-366	4.2	65
26	Free hydrocarbon gas, gas hydrate, and authigenic minerals in chemosynthetic communities of the northern Gulf of Mexico continental slope: relation to microbial processes. *Chemical Geology*, **2004**, 205, 195-217	4.2	184
25	Co-existence of gas hydrate, free gas, and brine within the regional gas hydrate stability zone at Hydrate Ridge (Oregon margin): evidence from prolonged degassing of a pressurized core. *Earth and Planetary Science Letters*, **2004**, 222, 829-843	5.3	146
24	Three-dimensional distribution of gas hydrate beneath southern Hydrate Ridge: constraints from ODP Leg 204. *Earth and Planetary Science Letters*, **2004**, 222, 845-862	5.3	235
23	Ethane enrichment and propane depletion in subsurface gases indicate gas hydrate occurrence in marine sediments at southern Hydrate Ridge offshore Oregon. *Organic Geochemistry*, **2004**, 35, 1067-1080	3.1	37
22	In situ methane concentrations at Hydrate Ridge, offshore Oregon: New constraints on the global gas hydrate inventory from an active margin. *Geology*, **2003**, 31, 833-836	5	110
21	Geochemical evidence of rapid hydrocarbon venting from a seafloor-piercing mud diapir, Gulf of Mexico continental shelf. *Marine Geology*, **2003**, 198, 319-329	3.3	31
20	Mud volcanoes discovered offshore Sicily. *Marine Geology*, **2003**, 199, 1-6	3.3	40
19	Global gas flux from mud volcanoes: A significant source of fossil methane in the atmosphere and the ocean. *Geophysical Research Letters*, **2003**, 30,	4.9	132
18	Preliminary assessment of resources and economic potential of individual gas hydrate accumulations in the Gulf of Mexico continental slope. *Marine and Petroleum Geology*, **2003**, 20, 111-128	4.7	70
17	Gas venting and subsurface charge in the Green Canyon area, Gulf of Mexico continental slope: evidence of a deep bacterial methane source?. *Organic Geochemistry*, **2003**, 34, 1455-1464	3.1	53
16	Two-dimensional modeling of gas hydrate decomposition in the northwestern Gulf of Mexico: significance to global change assessment. *Global and Planetary Change*, **2003**, 36, 31-46	4.2	38

15	Gas Venting and Gas Hydrate Stability in the Northwestern Gulf of Mexico Slope: Significance to Sediment Deformation **2002**,		2
14	Economic geology of offshore gas hydrate accumulations and provinces. *Marine and Petroleum Geology*, **2002**, 19, 1-11	4.7	151
13	Estimate of gas hydrate resource, northwestern Gulf of Mexico continental slope. *Marine Geology*, **2001**, 179, 71-83	3.3	121
12	Thermogenic vent gas and gas hydrate in the Gulf of Mexico slope: Is gas hydrate decomposition significant?. *Geology*, **2001**, 29, 107	5	80
11	Massive vein-filling gas hydrate: relation to ongoing gas migration from the deep subsurface in the Gulf of Mexico. *Marine and Petroleum Geology*, **2001**, 18, 551-560	4.7	116
10	Gas hydrate and crude oil from the Mississippi Fan Foldbelt, downdip Gulf of Mexico Salt Basin: significance to petroleum system. *Organic Geochemistry*, **2001**, 32, 999-1008	3.1	27
9	Sea Floor Vents, Seeps, and Gas Hydrate: Relation to Flux Rate from the Deep Gulf of Mexico Petroleum System **2001**, 489-506		3
8	Worldwide distribution of submarine mud volcanoes and associated gas hydrates. *Marine Geology*, **2000**, 167, 29-42	3.3	510
7	Exclusion of 2-methylbutane (isopentane) during crystallization of structure II gas hydrate in sea-floor sediment, Gulf of Mexico. *Organic Geochemistry*, **2000**, 31, 1257-1262	3.1	31
6	Thickness of the gas hydrate stability zone, Gulf of Mexico continental slope. *Marine and Petroleum Geology*, **2000**, 17, 981-991	4.7	78
5	Sea-floor terrains of H□kon Mosby Mud Volcano as surveyed by deep-tow video and still photography. *Geo-Marine Letters*, **1999**, 19, 38-47	1.9	35
4	Gas hydrate accumulation at the H□kon Mosby Mud Volcano. *Geo-Marine Letters*, **1999**, 19, 57-67	1.9	99
3	Thermogenic gas hydrates and hydrocarbon gases in complex chemosynthetic communities, Gulf of Mexico continental slope. *Organic Geochemistry*, **1999**, 30, 485-497	3.1	181
2	Machine Learning Can Assign Geologic Basin to Produced Water Samples Using Major Ion Geochemistry. *Natural Resources Research*,1	4.9	0
1	Pre-drill Assessments and Drilling Outcomes in Mexico in 2018□2022 and Historical Experience from Norway and the Netherlands: Lessons Learned and Recommendations for Future Petroleum Exploration. *Natural Resources Research*,	4.9	1