

A V Malakhov

List of Publications by Year in descending order

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54
papers

4,996
citations

236925

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docs citations

66
times ranked

3455
citing authors

#	ARTICLE	IF	CITATIONS
1	The evidence for unusually high hydrogen abundances in the central part of Valles Marineris on Mars. <i>Icarus</i> , 2022, 374, 114805.	2.5	23
2	Physical Calibrations of the FRENDE Instrument Installed Onboard TGO Martian Orbiter. <i>Cosmic Research</i> , 2022, 60, 23-37.	0.6	1
3	High Resolution Map of Water in the Martian Regolith Observed by FRENDE Neutron Telescope Onboard ExoMars TGO. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	3
4	Numerical modeling of mapping of Martian epithermal neutron emission: Applications to FRENDE investigation onboard ESA's Trace Gas Orbiter. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2022, , 166997.	1.6	0
5	Results from radiation environment measurements aboard ExoMars Trace Gas Orbiter in Mars science orbit in May 2018–December 2019. <i>Icarus</i> , 2021, 361, 114264.	2.5	6
6	ADRON-LR Instrument for Active Neutron Sensing of the Lunar Matter Composition. <i>Solar System Research</i> , 2021, 55, 529-536.	0.7	3
7	Ice Permafrost – Oases™ Close to Martian Equator: Planet Neutron Mapping Based on Data of FRENDE Instrument Onboard TGO Orbiter of Russian-European ExoMars Mission. <i>Astronomy Letters</i> , 2020, 46, 407-421.	1.0	12
8	Promising Neutron Detector with Anticoincidence Protection. <i>Physics of Particles and Nuclei Letters</i> , 2019, 16, 93-99.	0.4	0
9	Mars Science Laboratory Dynamic Albedo of Neutrons passive mode data and results from sols 753 to 1292: Pahrump Hills to Naukluft Plateau. <i>Icarus</i> , 2019, 330, 75-90.	2.5	4
10	Results from the dynamic albedo of neutrons (DAN) passive mode experiment: Yellowknife Bay to Amargosa Valley (Sols 201–753). <i>Icarus</i> , 2018, 299, 513-537.	2.5	7
11	Fine Resolution Epithermal Neutron Detector (FRENDE) Onboard the ExoMars Trace Gas Orbiter. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	33
12	Observed diurnal variations in Mars Science Laboratory Dynamic Albedo of Neutrons passive mode data. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2018, 892, 70-83.	1.6	0
13	Study of the Microphonics for Prospective Space-Based Neutron and Gamma-Ray Detectors and Methods for its Suppression. <i>Cosmic Research</i> , 2018, 56, 208-212.	0.6	0
14	The ADRON-RM Instrument Onboard the ExoMars Rover. <i>Astrobiology</i> , 2017, 17, 585-594.	3.0	17
15	Monitoring of the time and spatial distribution of neutron-flux spectral density outside the Russian segment of the International Space Station based on data from the BTN-Neutron space experiment. <i>Cosmic Research</i> , 2017, 55, 110-123.	0.6	6
16	Hydrogen distribution in the lunar polar regions. <i>Icarus</i> , 2017, 283, 20-30.	2.5	75
17	A comparative study of LaBr ₃ (Ce ³⁺) and CeBr ₃ based gamma-ray spectrometers for planetary remote sensing applications. <i>Review of Scientific Instruments</i> , 2016, 87, 085112.	1.3	36
18	Possible application of scintillation detectors with semiconductor PMT for cosmic-neutron and gamma-ray detection. <i>Physics of Atomic Nuclei</i> , 2016, 79, 694-699.	0.4	2

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19	Active neutron sensing of the Martian surface with the DAN experiment onboard the NASA "Curiosity" Mars rover: Two types of soil with different water content in the gale crater. <i>Astronomy Letters</i> , 2016, 42, 251-259.	1.0	18
20	Hydrogen and chlorine abundances in the Kimberley formation of Gale crater measured by the DAN instrument on board the Mars Science Laboratory Curiosity rover. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 836-845.	3.6	23
21	Next generation of scintillation detector based on cerium bromide crystal for space application in the gamma-ray spectrometer of the Mercurian gamma-ray and neutron spectrometer. <i>Instruments and Experimental Techniques</i> , 2016, 59, 569-577.	0.5	7
22	Physical calibration of the LEND space-based neutron telescope: the sensitivity and the angular resolution. <i>Instruments and Experimental Techniques</i> , 2016, 59, 578-591.	0.5	3
23	Test facility for nuclear planetology instruments. <i>Physics of Particles and Nuclei Letters</i> , 2016, 13, 224-233.	0.4	5
24	The variations of neutron component of lunar radiation background from LEND/LRO observations. <i>Planetary and Space Science</i> , 2016, 122, 53-65.	1.7	13
25	Evidence for the sequestration of hydrogen-bearing volatiles towards the Moon's southern pole-facing slopes. <i>Icarus</i> , 2015, 255, 88-99.	2.5	14
26	Data processing of the active neutron experiment DAN for a Martian regolith investigation. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2015, 789, 114-127.	1.6	24
27	Water equivalent hydrogen estimates from the first 200 sols of Curiosity's traverse (Bradbury) Tj ETQq1 1 0.784314 rgBT /Overlo experiment. <i>Icarus</i> , 2015, 262, 102-123.	2.5	16
28	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1245267.	12.6	323
29	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1242777.	12.6	687
30	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1243480.	12.6	508
31	Mars' Surface Radiation Environment Measured with the Mars Science Laboratory's Curiosity Rover. <i>Science</i> , 2014, 343, 1244797.	12.6	475
32	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1244734.	12.6	246
33	Local variations of bulk hydrogen and chlorine-equivalent neutron absorption content measured at the contact between the Sheepbed and Gillespie Lake units in Yellowknife Bay, Gale Crater, using the DAN instrument onboard Curiosity. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 1259-1275.	3.6	33
34	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. <i>Science</i> , 2013, 341, 1238932.	12.6	327
35	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. <i>Science</i> , 2013, 341, 1239505.	12.6	280
36	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. <i>Science</i> , 2013, 341, 1238937.	12.6	367

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37	Martian Fluvial Conglomerates at Gale Crater. <i>Science</i> , 2013, 340, 1068-1072.	12.6	326
38	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. <i>Science</i> , 2013, 341, 1238670.	12.6	215
39	Neutron background environment measured by the Mars Science Laboratory's Dynamic Albedo of Neutrons instrument during the first 100 sols. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 2400-2412.	3.6	28
40	High spatial resolution studies of epithermal neutron emission from the lunar poles: Constraints on hydrogen mobility. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	38
41	Dynamic Albedo of Neutrons (DAN) Experiment Onboard NASA's Mars Science Laboratory. <i>Space Science Reviews</i> , 2012, 170, 559-582.	8.1	87
42	Testing lunar permanently shadowed regions for water ice: LEND results from LRO. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	49
43	Testing polar spots of water-rich permafrost on the Moon: LEND observations onboard LRO. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	60
44	LEND neutron data processing for the mapping of the Moon. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	18
45	Global maps of lunar neutron fluxes from the LEND instrument. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	35
46	Dynamic Albedo of Neutrons (DAN) Experiment Onboard NASA's Mars Science Laboratory. , 2012, , 559-582.		1
47	Lunar Exploration Neutron Detector for the NASA Lunar Reconnaissance Orbiter. <i>Space Science Reviews</i> , 2010, 150, 183-207.	8.1	92
48	The Mercury Gamma and Neutron Spectrometer (MGNS) on board the Planetary Orbiter of the BepiColombo mission. <i>Planetary and Space Science</i> , 2010, 58, 116-124.	1.7	54
49	The first stage of the "BTN-Neutron" space experiment onboard the Russian segment of the International Space Station. <i>Cosmic Research</i> , 2010, 48, 285-299.	0.6	14
50	Hydrogen Mapping of the Lunar South Pole Using the LRO Neutron Detector Experiment LEND. <i>Science</i> , 2010, 330, 483-486.	12.6	265
51	Neutron components of radiation environment in the near-Earth and near-Mars space. <i>Planetary and Space Science</i> , 2009, 57, 1993-1995.	1.7	6
52	Lunar Exploration Neutron Detector for the NASA Lunar Reconnaissance Orbiter. , 2009, , 183-207.		0
53	The Dynamic Albedo of Neutrons (DAN) Experiment for NASA's 2009 Mars Science Laboratory. <i>Astrobiology</i> , 2008, 8, 605-612.	3.0	75
54	Experiment LEND of the NASA Lunar Reconnaissance Orbiter for High-Resolution Mapping of Neutron Emission of the Moon. <i>Astrobiology</i> , 2008, 8, 793-804.	3.0	36