

Thomas Berger

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

102
papers

2,392
citations

24
h-index

45
g-index

104
ext. papers

2,821
ext. citations

2.9
avg, IF

4.55
L-index

#	Paper	IF	Citations
102	Mars' surface radiation environment measured with the Mars Science Laboratory's Curiosity rover. <i>Science</i> , 2014 , 343, 1244797	33.3	343
101	Role of DNA repair by nonhomologous-end joining in <i>Bacillus subtilis</i> spore resistance to extreme dryness, mono- and polychromatic UV, and ionizing radiation. <i>Journal of Bacteriology</i> , 2007 , 189, 3306-13	3.5	121
100	Survival of lichens and bacteria exposed to outer space conditions [Results of the Lithopanspermia experiments. <i>Icarus</i> , 2010 , 208, 735-748	3.8	107
99	Astronaut's organ doses inferred from measurements in a human phantom outside the international space station. <i>Radiation Research</i> , 2009 , 171, 225-35	3.1	94
98	A ready-to-use galactic cosmic ray model. <i>Advances in Space Research</i> , 2013 , 51, 329-338	2.4	85
97	Limits of Life and the Habitability of Mars: The ESA Space Experiment BIOMEX on the ISS. <i>Astrobiology</i> , 2019 , 19, 145-157	3.7	73
96	TL-efficiency Overview and experimental results over the years. <i>Radiation Measurements</i> , 2008 , 43, 146-156	1.5	71
95	Roles of the major, small, acid-soluble spore proteins and spore-specific and universal DNA repair mechanisms in resistance of <i>Bacillus subtilis</i> spores to ionizing radiation from X rays and high-energy charged-particle bombardment. <i>Journal of Bacteriology</i> , 2008 , 190, 1134-40	3.5	70
94	Supporting Mars exploration: BIOMEX in Low Earth Orbit and further astrobiological studies on the Moon using Raman and PanCam technology. <i>Planetary and Space Science</i> , 2012 , 74, 103-110	2	67
93	Out-of-field dose measurements in a water phantom using different radiotherapy modalities. <i>Physics in Medicine and Biology</i> , 2012 , 57, 5059-74	3.8	56
92	The Martian surface radiation environment [A comparison of models and MSL/RAD measurements. <i>Journal of Space Weather and Space Climate</i> , 2016 , 6, A13	2.5	52
91	Temporal and spatial evolution of the solar energetic particle event on 20 January 2005 and resulting radiation doses in aviation. <i>Journal of Geophysical Research</i> , 2009 , 114, n/a-n/a		44
90	The MATROSHKA facility--dose determination during an EVA. <i>Radiation Protection Dosimetry</i> , 2006 , 120, 442-5	0.9	43
89	Cosmic radiation exposure of biological test systems during the EXPOSE-E mission. <i>Astrobiology</i> , 2012 , 12, 387-92	3.7	41
88	Assessment of galactic cosmic ray models. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		40
87	The radiation environment on the surface of Mars - Summary of model calculations and comparison to RAD data. <i>Life Sciences in Space Research</i> , 2017 , 14, 18-28	2.4	38
86	STARLIFE-An International Campaign to Study the Role of Galactic Cosmic Radiation in Astrobiological Model Systems. <i>Astrobiology</i> , 2017 , 17, 101-109	3.7	37

85	DOSIS & DOSIS 3D: long-term dose monitoring onboard the Columbus Laboratory of the International Space Station (ISS). <i>Journal of Space Weather and Space Climate</i> , 2016 , 6, A39	2.5	34
84	The MATROSHKA experiment: results and comparison from extravehicular activity (MTR-1) and intravehicular activity (MTR-2A/2B) exposure. <i>Radiation Research</i> , 2013 , 180, 622-37	3.1	33
83	Operational radiation protection for astronauts and cosmonauts and correlated activities of ESA Medical Operations. <i>Acta Astronautica</i> , 2010 , 66, 963-973	2.9	32
82	Characterization of the secondary neutron field produced during treatment of an anthropomorphic phantom with x-rays, protons and carbon ions. <i>Physics in Medicine and Biology</i> , 2014 , 59, 2111-25	3.8	30
81	Radiation exposure in the moon environment. <i>Planetary and Space Science</i> , 2012 , 74, 78-83	2	30
80	Radiation dosimetry onboard the International Space Station ISS. <i>Zeitschrift Fur Medizinische Physik</i> , 2008 , 18, 265-75	7.6	30
79	Astrobiological aspects of the mutagenesis of cosmic radiation on bacterial spores. <i>Astrobiology</i> , 2010 , 10, 509-21	3.7	27
78	Carbon-ion-induced activation of the NF- κ B pathway. <i>Radiation Research</i> , 2011 , 175, 424-31	3.1	24
77	Out-of-field dose studies with an anthropomorphic phantom: comparison of X-rays and particle therapy treatments. <i>Radiotherapy and Oncology</i> , 2012 , 105, 133-8	5.3	23
76	First measurements of the radiation dose on the lunar surface. <i>Science Advances</i> , 2020 , 6,	14.3	23
75	Analysis of the Radiation Hazard Observed by RAD on the Surface of Mars During the September 2017 Solar Particle Event. <i>Geophysical Research Letters</i> , 2018 , 45, 5845	4.9	23
74	Comparison of the response of various TLDs to cosmic radiation and ion beams: Current results of the HAMLET project. <i>Radiation Measurements</i> , 2011 , 46, 1680-1685	1.5	22
73	Calibration and Characterization of the Radiation Assessment Detector (RAD) on Curiosity. <i>Space Science Reviews</i> , 2016 , 201, 201-233	7.5	21
72	DOSIS & DOSIS 3D: radiation measurements with the DOSTEL instruments onboard the Columbus Laboratory of the ISS in the years 2009-2016. <i>Journal of Space Weather and Space Climate</i> , 2017 , 7, A8	2.5	21
71	Activation of the nuclear factor κ B pathway by heavy ion beams of different linear energy transfer. <i>International Journal of Radiation Biology</i> , 2011 , 87, 954-63	2.9	21
70	LET dependence of thermoluminescent efficiency and peak height ratio of CaF ₂ :Tm. <i>Radiation Measurements</i> , 2008 , 43, 1135-1139	1.5	21
69	The ground level event 70 on December 13th, 2006 and related effective doses at aviation altitudes. <i>Radiation Protection Dosimetry</i> , 2009 , 136, 304-10	0.9	20
68	Convolution of TLD and SSNTD measurements during the BRADOS-1 experiment onboard ISS (2001). <i>Radiation Measurements</i> , 2008 , 43, 1231-1236	1.5	20

67	On the linearity of the high-temperature emission from 7LiF:Mg,Ti (TLD-700). <i>Radiation Measurements</i> , 2008 , 43, 1467-1473	1.5	20
66	The efficiency of various thermoluminescence dosimeter types to heavy ions. <i>Radiation Protection Dosimetry</i> , 2006 , 120, 365-8	0.9	20
65	Energetic Particle Radiation Environment Observed by RAD on the Surface of Mars During the September 2017 Event. <i>Geophysical Research Letters</i> , 2018 , 45, 5305-5311	4.9	20
64	In Situ Data and Effect Correlation During September 2017 Solar Particle Event. <i>Space Weather</i> , 2019 , 17, 99-117	3.7	18
63	Estimation of Galactic Cosmic Ray exposure inside and outside the Earth's magnetosphere during the recent solar minimum between solar cycles 23 and 24. <i>Advances in Space Research</i> , 2013 , 52, 979-987	2.4	18
62	High-energy proton imaging for biomedical applications. <i>Scientific Reports</i> , 2016 , 6, 27651	4.9	18
61	Radiation measured for MATROSHKA-1 experiment with passive dosimeters. <i>Acta Astronautica</i> , 2010 , 66, 301-308	2.9	17
60	The Solar Particle Event on 10 September 2017 as observed onboard the International Space Station (ISS). <i>Space Weather</i> , 2018 , 16, 1173-1189	3.7	16
59	How Galactic Cosmic Ray models affect the estimation of radiation exposure in space. <i>Advances in Space Research</i> , 2013 , 51, 825-834	2.4	16
58	Analysis of the neutron component at high altitude mountains using active and passive measurement devices. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2002 , 476, 69-73	1.2	16
57	Eu:CROPIS <i>Euglena gracilis</i> : Combined Regenerative Organic-food Production in Space—A Space Experiment Testing Biological Life Support Systems Under Lunar And Martian Gravity. <i>Microgravity Science and Technology</i> , 2018 , 30, 933-942	1.6	16
56	Space Weather on the Surface of Mars: Impact of the September 2017 Events. <i>Space Weather</i> , 2018 , 16, 1702-1708	3.7	16
55	Dose distribution in the Russian Segment of the International Space Station. <i>Radiation Protection Dosimetry</i> , 2006 , 120, 446-9	0.9	15
54	Efficiency-corrected dose verification with thermoluminescence dosimeters in heavy-ion beams. <i>Radiation Protection Dosimetry</i> , 2006 , 120, 361-4	0.9	15
53	Austrian dose measurements onboard space station MIR and the International Space Station—overview and comparison. <i>Advances in Space Research</i> , 2004 , 34, 1414-9	2.4	15
52	Matroshka DOSTEL measurements onboard the International Space Station (ISS). <i>Journal of Space Weather and Space Climate</i> , 2015 , 5, A38	2.5	14
51	The Solar Particle Event on 10–13 September 2017: Spectral Reconstruction and Calculation of the Radiation Exposure in Aviation and Space. <i>Space Weather</i> , 2018 , 16, 977-986	3.7	13
50	Preparation of the Biochip experiment on the EXPOSE-R2 mission outside the International Space Station. <i>Advances in Space Research</i> , 2013 , 52, 2168-2179	2.4	13

49	A TLD-based personal dosimeter system for aircrew monitoring. <i>Radiation Protection Dosimetry</i> , 2004 , 110, 337-41	0.9	13
48	The radiation environment on the surface of Mars - Numerical calculations of the galactic component with GEANT4/PLANETOCOSMICS. <i>Life Sciences in Space Research</i> , 2017 , 14, 57-63	2.4	12
47	Cosmic radiation exposure of biological test systems during the EXPOSE-R mission. <i>International Journal of Astrobiology</i> , 2015 , 14, 27-32	1.4	12
46	PHITS simulations of the Matroshka experiment. <i>Advances in Space Research</i> , 2010 , 46, 1266-1272	2.4	12
45	The Altcriss project on board the International Space Station. <i>Advances in Space Research</i> , 2007 , 40, 1746-1753	2.1	12
44	Novel shielding materials for space and air travel. <i>Radiation Protection Dosimetry</i> , 2006 , 120, 405-9	0.9	12
43	Radiation Measurements Performed with Active Detectors Relevant for Human Space Exploration. <i>Frontiers in Oncology</i> , 2015 , 5, 273	5.3	11
42	Simulations of MATROSHKA experiment outside the ISS using PHITS. <i>Advances in Space Research</i> , 2012 , 50, 489-495	2.4	11
41	BRADOS Dose determination in the Russian Segment of the International Space Station. <i>Advances in Space Research</i> , 2006 , 37, 1664-1667	2.4	11
40	Thermoluminescence fading studies: Implications for long-duration space measurements in Low Earth Orbit. <i>Radiation Measurements</i> , 2013 , 56, 303-306	1.5	10
39	Organ shielding and doses in Low-Earth orbit calculated for spherical and anthropomorphic phantoms. <i>Advances in Space Research</i> , 2013 , 52, 528-535	2.4	10
38	NUNDO: a numerical model of a human torso phantom and its application to effective dose equivalent calculations for astronauts at the ISS. <i>Radiation and Environmental Biophysics</i> , 2014 , 53, 719-27		10
37	Comparison of various techniques for the exact determination of absorbed dose in heavy ion fields using passive detectors. <i>Advances in Space Research</i> , 2006 , 37, 1716-1721	2.4	9
36	Application of the high-temperature ratio method for evaluation of the depth distribution of dose equivalent in a water-filled phantom on board space station Mir. <i>Radiation Protection Dosimetry</i> , 2002 , 100, 503-6	0.9	8
35	The Lunar Lander Neutron and Dosimetry (LND) Experiment on Chang'e 4. <i>Space Science Reviews</i> , 2020 , 216, 1	7.5	8
34	MARSBox: Fungal and Bacterial Endurance From a Balloon-Flown Analog Mission in the Stratosphere. <i>Frontiers in Microbiology</i> , 2021 , 12, 601713	5.7	8
33	Space experiment "Cellular Responses to Radiation in Space (CellRad)": Hardware and biological system tests. <i>Life Sciences in Space Research</i> , 2015 , 7, 73-89	2.4	7
32	The Role of the Nuclear Factor B Pathway in the Cellular Response to Low and High Linear Energy Transfer Radiation. <i>International Journal of Molecular Sciences</i> , 2018 , 19,	6.3	7

31	Measurements of radiation quality factor on Mars with the Mars Science Laboratory Radiation Assessment Detector. <i>Life Sciences in Space Research</i> , 2019 , 22, 89-97	2.4	7
30	Long-term dose measurements applying a human anthropomorphic phantom onboard an aircraft. <i>Radiation Measurements</i> , 2008 , 43, 580-584	1.5	7
29	Influence of cosmic radiation spectrum and its variation on the relative efficiency of LiF thermoluminescent detectors I. Calculations and measurements. <i>Radiation Measurements</i> , 2016 , 88, 33-40	1.5	6
28	Constitutive expression of tdTomato protein as a cytotoxicity and proliferation marker for space radiation biology. <i>Life Sciences in Space Research</i> , 2015 , 4, 35-45	2.4	6
27	The German Aerospace Center M-42 radiation detector-A new development for applications in mixed radiation fields. <i>Review of Scientific Instruments</i> , 2019 , 90, 125115	1.7	6
26	Exploiting different active silicon detectors in the International Space Station: ALTEA and DOSTEL galactic cosmic radiation (GCR) measurements. <i>Journal of Space Weather and Space Climate</i> , 2017 , 7, A18	2.5	5
25	Measurements of heavy-ion anisotropy and dose rates in the Russian section of the International Space Station with the Sileye-3/Alteino detector. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2015 , 42, 025002	2.9	4
24	TLD efficiency calculations for heavy ions: an analytical approach. <i>European Physical Journal D</i> , 2015 , 69, 1	1.3	4
23	Long term variations of galactic cosmic radiation on board the International Space Station, on the Moon and on the surface of Mars. <i>Journal of Space Weather and Space Climate</i> ,	2.5	4
22	Photochemistry on the Space Station-Aptamer Resistance to Space Conditions: Particles Exposure from Irradiation Facilities and Real Exposure Outside the International Space Station. <i>Astrobiology</i> , 2019 , 19, 1063-1074	3.7	3
21	Photochemistry on the Space Station-Antibody Resistance to Space Conditions after Exposure Outside the International Space Station. <i>Astrobiology</i> , 2019 , 19, 1053-1062	3.7	3
20	Passive in-flight neutron spectrometry by means of bonner spheres. <i>Radiation Protection Dosimetry</i> , 2004 , 110, 343-6	0.9	3
19	Phobos LIFE (Living Interplanetary Flight Experiment). <i>Astrobiology</i> , 2019 , 19, 1177-1185	3.7	2
18	5.2.2 Intercomparison of Radiation Detectors and Dosimeters for Use in Manned Space Flight. <i>Radioisotopes</i> , 2019 , 68, 411-418	0.1	2
17	A small active dosimeter for applications in space. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014 , 748, 61-69	1.2	2
16	¹⁰ Be Production in the Atmosphere by Galactic Cosmic Rays. <i>Space Science Reviews</i> , 2013 , 176, 333-342	7.5	2
15	MATSIM: Development of a Voxel Model of the MATROSHKA Astronaut Dosimetric Phantom. <i>IEEE Transactions on Nuclear Science</i> , 2011 , 58, 1921-1926	1.7	2
14	The space experiment CERASP: Definition of a space-suited radiation source and growth conditions for human cells. <i>Acta Astronautica</i> , 2008 , 63, 906-914	2.9	2

13	Advantages of passive detectors for the determination of the cosmic ray induced neutron environment. <i>Radiation Protection Dosimetry</i> , 2002 , 100, 541-4	0.9	2
12	Radiation in Space: Relevance and Risk for Human Missions. <i>SpringerBriefs in Space Life Sciences</i> , 2020 ,	0.4	2
11	Monte carlo simulations of MATROSHKA experiment outside ISS 2011 ,		1
10	Directionality of the Martian Surface Radiation and Derivation of the Upward Albedo Radiation. <i>Geophysical Research Letters</i> , 2021 , 48, e2021GL093912	4.9	1
9	Response calculations for silicon-based direct-reading dosimeters for use at the international space station (ISS). <i>Radiation Measurements</i> , 2010 , 45, 1548-1552	1.5	0
8	5.2.5 Calibration of Detectors that Have Flown on Mir, ISS, Lunar Reconnaissance Orbiter, the Orion Spacecraft and the Mars Science Laboratory. <i>Radioisotopes</i> , 2019 , 68, 433-441	0.1	
7	Neutron dosimetry onboard aircraft using superheated emulsions. <i>Radioactivity in the Environment</i> , 2005 , 941-947		
6	Measurements and calculations of the radiation exposure of aircrew personnel on different flight routes. <i>Radioactivity in the Environment</i> , 2005 , 948-954		
5	Challenges for Exploratory Missions. <i>SpringerBriefs in Space Life Sciences</i> , 2020 , 105-111	0.4	
4	Strahlenrisiko auf Langzeitraumflügen. <i>Flugmedizin □ Tropenmedizin □ Reisemedizin - FTR</i> , 2018 , 25, 205-212	0.1	
3	Radiation in Space: The Biology. <i>SpringerBriefs in Space Life Sciences</i> , 2020 , 45-85	0.4	
2	Radiation in Space: The Physics. <i>SpringerBriefs in Space Life Sciences</i> , 2020 , 7-43	0.4	
1	The Martian surface radiation environment at solar minimum measured with MSL/RAD. <i>Icarus</i> , 2022 , 115035	3.8	