

David A Kring

List of Publications by Year in descending order

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92
papers

6,838
citations

66343

42
h-index

62596

80
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92
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92
docs citations

92
times ranked

4279
citing authors

#	ARTICLE	IF	CITATIONS
1	The Chicxulub Asteroid Impact and Mass Extinction at the Cretaceous-Paleogene Boundary. <i>Science</i> , 2010, 327, 1214-1218.	12.6	1,140
2	Chicxulub Crater: A possible Cretaceous/Tertiary boundary impact crater on the Yucatán Peninsula, Mexico. <i>Geology</i> , 1991, 19, 867.	4.4	768
3	Support for the Lunar Cataclysm Hypothesis from Lunar Meteorite Impact Melt Ages. , 2000, 290, 1754-1756.		279
4	Impact-induced hydrothermal activity on early Mars. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	222
5	A sawtooth-like timeline for the first billion years of lunar bombardment. <i>Earth and Planetary Science Letters</i> , 2012, 355-356, 144-151.	4.4	217
6	The Chicxulub impact event and its environmental consequences at the Cretaceous-Tertiary boundary. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2007, 255, 4-21.	2.3	189
7	Widespread mixing and burial of Earth's Hadean crust by asteroid impacts. <i>Nature</i> , 2014, 511, 578-582.	27.8	187
8	Hydrocode simulation of the Chicxulub impact event and the production of climatically active gases. <i>Journal of Geophysical Research</i> , 1998, 103, 28607-28625.	3.3	182
9	The formation of peak rings in large impact craters. <i>Science</i> , 2016, 354, 878-882.	12.6	181
10	Constraining the size of the South Pole-Aitken basin impact. <i>Icarus</i> , 2012, 220, 730-743.	2.5	131
11	Impact-generated hydrothermal systems capable of forming phyllosilicates on Noachian Mars. <i>Geology</i> , 2009, 37, 1091-1094.	4.4	129
12	Rapid recovery of life at ground zero of the end-Cretaceous mass extinction. <i>Nature</i> , 2018, 558, 288-291.	27.8	123
13	The onset of the lunar cataclysm as recorded in its ancient crater populations. <i>Earth and Planetary Science Letters</i> , 2012, 325-326, 27-38.	4.4	103
14	Osmium isotope and highly siderophile element systematics of lunar impact melt breccias: Implications for the late accretion history of the Moon and Earth. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 3022-3042.	3.9	102
15	Lunar volcanism produced a transient atmosphere around the ancient Moon. <i>Earth and Planetary Science Letters</i> , 2017, 478, 175-178.	4.4	101
16	Numerical modeling of impact-induced hydrothermal activity at the Chicxulub crater. <i>Meteoritics and Planetary Science</i> , 2007, 42, 93-112.	1.6	94
17	Differentiation of the South Pole-Aitken basin impact melt sheet: Implications for lunar exploration. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 1110-1133.	3.6	89
18	Direct Detection of Projectile Relics from the End of the Lunar Basin-Forming Epoch. <i>Science</i> , 2012, 336, 1426-1429.	12.6	88

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19	Petrogenesis of an augite-bearing melt rock in the Chicxulub structure and its relationship to K/T impact spherules in Haiti. <i>Nature</i> , 1992, 358, 141-144.	27.8	85
20	Trajectories and distribution of material ejected from the Chicxulub impact crater: Implications for postimpact wildfires. <i>Journal of Geophysical Research</i> , 2002, 107, 6-1.	3.3	84
21	Environmental Consequences of Impact Cratering Events as a Function of Ambient Conditions on Earth. <i>Astrobiology</i> , 2003, 3, 133-152.	3.0	80
22	The dimensions of the Chicxulub impact crater and impact melt sheet. <i>Journal of Geophysical Research</i> , 1995, 100, 16979.	3.3	79
23	Numerical modeling of an impact-induced hydrothermal system at the Sudbury crater. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	79
24	Hydrothermal alteration in the core of the Yaxcopoil-1 borehole, Chicxulub impact structure, Mexico. <i>Meteoritics and Planetary Science</i> , 2004, 39, 1199-1221.	1.6	76
25	Rock fluidization during peak-ring formation of large impact structures. <i>Nature</i> , 2018, 562, 511-518.	27.8	74
26	Probing the hydrothermal system of the Chicxulub impact crater. <i>Science Advances</i> , 2020, 6, eaaz3053.	10.3	69
27	Spectral and photogeologic mapping of Schr�dinger Basin and implications for post-South Pole-Aitken impact deep subsurface stratigraphy. <i>Icarus</i> , 2013, 223, 131-148.	2.5	68
28	Gullies and landslides on the Moon: Evidence for dry granular flows. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 206-223.	3.6	68
29	An asteroidal origin for water in the Moon. <i>Nature Communications</i> , 2016, 7, 11684.	12.8	68
30	Numerical modeling of the formation and structure of the Orientale impact basin. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 963-979.	3.6	67
31	Extraordinary rocks from the peak ring of the Chicxulub impact crater: P-wave velocity, density, and porosity measurements from IODP/ICDP Expedition 364. <i>Earth and Planetary Science Letters</i> , 2018, 495, 1-11.	4.4	65
32	Impact lithologies and their emplacement in the Chicxulub impact crater: Initial results from the Chicxulub Scientific Drilling Project, Yaxcopoil, Mexico. <i>Meteoritics and Planetary Science</i> , 2004, 39, 879-897.	1.6	63
33	The Moon: An Archive of Small Body Migration in the Solar System. <i>Earth, Moon and Planets</i> , 2016, 118, 133-158.	0.6	60
34	Hypervelocity collisions into continental crust composed of sediments and an underlying crystalline basement: comparing the Ries (~1424 km) and Chicxulub (~180 km) impact craters. <i>Chemie Der Erde</i> , 2005, 65, 201-46.	2.0	59
35	A lunar L2-Farside exploration and science mission concept with the Orion Multi-Purpose Crew Vehicle and a teleoperated lander/rover. <i>Advances in Space Research</i> , 2013, 52, 306-320.	2.6	59
36	⁴⁰ Ar/ ³⁹ Ar ages of impacts involving ordinary chondrite meteorites. <i>Geological Society Special Publication</i> , 2014, 378, 333-347.	1.3	59

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37	Cat Mountain: A meteoritic sample of an impact-melted asteroid regolith. <i>Journal of Geophysical Research</i> , 1996, 101, 29353-29371.	3.3	57
38	Recent shallow moonquake and impact-triggered boulder falls on the Moon: New insights from the Schr�dinger basin. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 147-179.	3.6	57
39	Terrestrial-like zircon in a clast from an Apollo 14 breccia. <i>Earth and Planetary Science Letters</i> , 2019, 510, 173-185.	4.4	56
40	Impact-induced perturbations of atmospheric sulfur. <i>Earth and Planetary Science Letters</i> , 1996, 140, 201-212.	4.4	52
41	Globally distributed iridium layer preserved within the Chicxulub impact structure. <i>Science Advances</i> , 2021, 7, .	10.3	47
42	Air blast produced by the Meteor Crater impact event and a reconstruction of the affected environment. <i>Meteoritics and Planetary Science</i> , 1997, 32, 517-530.	1.6	45
43	Altered spherules of impact melt and associated relic glass from the K/T boundary sediments in Haiti. <i>Geochimica Et Cosmochimica Acta</i> , 1991, 55, 1737-1742.	3.9	44
44	⁴⁰ Ar- ³⁹ Ar ages of H�chondrite impact melt breccias. <i>Meteoritics and Planetary Science</i> , 2009, 44, 747-762.	1.6	44
45	Estimating transient crater size using the crustal annular bulge: Insights from numerical modeling of lunar basin-scale impacts. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	40
46	Peak-ring structure and kinematics from a multi-disciplinary study of the Schr�dinger impact basin. <i>Nature Communications</i> , 2016, 7, 13161.	12.8	38
47	High-priority lunar landing sites for in situ and sample return studies of polar volatiles. <i>Planetary and Space Science</i> , 2014, 101, 149-161.	1.7	36
48	Robotic traverse and sample return strategies for a lunar farside mission to the Schr�dinger basin. <i>Advances in Space Research</i> , 2015, 55, 1241-1254.	2.6	36
49	Science on the lunar surface facilitated by low latency telerobotics from a Lunar Orbital Platform - Gateway. <i>Acta Astronautica</i> , 2019, 154, 195-203.	3.2	36
50	H/L chondrite LaPaz Icefield 031047 - A feather of Icarus?. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 6140-6159.	3.9	31
51	Osmium isotope constraints on the proportion of bolide component in Chicxulub impact melt rocks. <i>Meteoritics and Planetary Science</i> , 2004, 39, 1003-1008.	1.6	29
52	Geochemistry, geochronology and petrogenesis of Maya Block granitoids and dykes from the Chicxulub Impact Crater, Gulf of M�xico: Implications for the assembly of Pangea. <i>Gondwana Research</i> , 2020, 82, 128-150.	6.0	26
53	Petrography, geochronology and source terrain characteristics of lunar meteorites Dhofar 925, 961 and Sayh al Uhaymir 449. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 144, 299-325.	3.9	25
54	Identifying the geologic context of Apollo 17 impact melt breccias. <i>Earth and Planetary Science Letters</i> , 2016, 436, 64-70.	4.4	24

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55	Using Boulder Tracks as a Tool to Understand the Bearing Capacity of Permanently Shadowed Regions of the Moon. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006157.	3.6	24
56	Identification and characterization of science-rich landing sites for lunar lander missions using integrated remote sensing observations. <i>Advances in Space Research</i> , 2012, 50, 1647-1665.	2.6	23
57	Identification of magnetite in lunar regolith breccia 60016: Evidence for oxidized conditions at the lunar surface. <i>Meteoritics and Planetary Science</i> , 2015, 50, 1157-1172.	1.6	22
58	Geologic context and potential EVA targets at the lunar south pole. <i>Advances in Space Research</i> , 2020, 66, 1247-1264.	2.6	22
59	Framework for Coordinated Efforts in the Exploration of Volatiles in the South Polar Region of the Moon. <i>Planetary Science Journal</i> , 2021, 2, 103.	3.6	22
60	Analysis of Lunar Boulder Tracks: Implications for Trafficability of Pyroclastic Deposits. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 1296-1314.	3.6	21
61	Hydrothermal alteration associated with the Chicxulub impact crater upper peak-ring breccias. <i>Earth and Planetary Science Letters</i> , 2020, 547, 116425.	4.4	21
62	Analyses of robotic traverses and sample sites in the Schr�dinger basin for the HERACLES human-assisted sample return mission concept. <i>Advances in Space Research</i> , 2016, 58, 1050-1065.	2.6	20
63	Lunar south pole boulders and boulder tracks: Implications for crew and rover traverses. <i>Icarus</i> , 2020, 348, 113850.	2.5	20
64	Ignition threshold for impact-generated fires. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	19
65	The Ar-Ar age and petrology of Miller Range 05029: Evidence for a large impact in the very early solar system. <i>Meteoritics and Planetary Science</i> , 2010, 45, 1868-1888.	1.6	19
66	Microbial Sulfur Isotope Fractionation in the Chicxulub Hydrothermal System. <i>Astrobiology</i> , 2021, 21, 103-114.	3.0	18
67	High-resolution microstructural and compositional analyses of shock deformed apatite from the peak ring of the Chicxulub impact crater. <i>Meteoritics and Planetary Science</i> , 2020, 55, .	1.6	17
68	Chicxulub and the Exploration of Large Peak-Ring Impact Craters through Scientific Drilling. <i>GSA Today</i> , 2017, , 4-8.	2.0	17
69	Provenance of mineral phases in the Cretaceous-Tertiary boundary sediments exposed on the southern peninsula of Haiti. <i>Earth and Planetary Science Letters</i> , 1994, 128, 629-641.	4.4	16
70	Potential sample sites for South Pole�Aitken basin impact melt within the Schr�dinger basin. <i>Earth and Planetary Science Letters</i> , 2015, 427, 31-36.	4.4	16
71	Scaling of basin-sized impacts and the influence of target temperature. <i>Special Paper of the Geological Society of America</i> , 2015, , 99-113.	0.5	15
72	Reevaluating the impact cratering kill curve. <i>Meteoritics and Planetary Science</i> , 2002, 37, 1648-1649.	1.6	15

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73	U-Pb memory behavior in Chicxulub's peak ring " Applying U-Pb depth profiling to shocked zircon. <i>Chemical Geology</i> , 2019, 525, 356-367.	3.3	15
74	Winding down the Chicxulub impact: The transition between impact and normal marine sedimentation near ground zero. <i>Marine Geology</i> , 2020, 430, 106368.	2.1	15
75	Shock impedance amplified impact deformation of zircon in granitic rocks from the Chicxulub impact crater. <i>Earth and Planetary Science Letters</i> , 2021, 575, 117201.	4.4	15
76	Calibrating several key lunar stratigraphic units representing 4 b.y. of lunar history within Schr�dinger basin. , 2011, , .		14
77	Traverses for the ISECG-GER design reference mission for humans on the lunar surface. <i>Advances in Space Research</i> , 2019, 63, 692-727.	2.6	14
78	The isotopic composition of volatiles in the unique Bench Crater carbonaceous chondrite impactor found in the Apollo 12 regolith. <i>Earth and Planetary Science Letters</i> , 2020, 540, 116265.	4.4	14
79	The Habitat of the Nascent Chicxulub Crater. <i>AGU Advances</i> , 2020, 1, e2020AV000208.	5.4	12
80	Evidence of Carboniferous arc magmatism preserved in the Chicxulub impact structure. <i>Bulletin of the Geological Society of America</i> , 2022, 134, 241-260.	3.3	12
81	Lacustrine Fossil Preservation in Acidic Environments: Implications of Experimental and Field Studies for the Cretaceous-Paleogene Boundary Acid Rain Trauma. <i>Palaios</i> , 2005, 20, 376-389.	1.3	10
82	U-Th-Pb systematics in zircon and apatite from the Chicxulub impact crater, Yucat�n, Mexico. <i>Geological Magazine</i> , 2018, 155, 1330-1350.	1.5	9
83	Numerical modeling of the formation of Shackleton crater at the lunar south pole. <i>Icarus</i> , 2021, 354, 113992.	2.5	9
84	Shaping of the Present-Day Deep Biosphere at Chicxulub by the Impact Catastrophe That Ended the Cretaceous. <i>Frontiers in Microbiology</i> , 2021, 12, 668240.	3.5	8
85	Prominent volcanic source of volatiles in the south polar region of the Moon. <i>Advances in Space Research</i> , 2021, 68, 4691-4701.	2.6	8
86	Stable isotope record of post-impact fluid activity in the core of the Yaxcopoil-1 borehole, Chicxulub impact structure, Mexico. , 2005, , .		7
87	Ocean surge-induced impact melt dynamics on the peak-ring of the Chicxulub impact structure, Mexico. <i>International Journal of Earth Sciences</i> , 2021, 110, 2619-2636.	1.8	5
88	A low-temperature, meteoric water-dominated origin for smectitic clay minerals in the Chicxulub impact crater upper peak ring, as inferred from their oxygen and hydrogen isotope compositions. <i>Chemical Geology</i> , 2022, 588, 120639.	3.3	5
89	Human-assisted Sample Return Mission at the Schr�dinger Basin, Lunar Far Side, Using a New Geologic Map and Rover Traverses. <i>Planetary Science Journal</i> , 2021, 2, 51.	3.6	4
90	Hydrogen Production from Alteration of Chicxulub Crater Impact Breccias: Potential Energy Source for a Subsurface Microbial Ecosystem. <i>Astrobiology</i> , 2021, 21, 1547-1564.	3.0	4

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91	Borehole Seismic Observations From the Chicxulub Impact Drilling: Implications for Seismic Reflectivity and Impact Damage. <i>Geochemistry, Geophysics, Geosystems</i> , 2022, 23, .	2.5	1
92	Petrophysics of Chicxulub impact crater's peak ring. <i>Journal of Geophysical Research: Solid Earth</i> , 0, , .	3.4	0