Thomas Kenkmann

List of Publications by Year
in descending order

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96 papers	2,858 citations	136950 32 h-index	197818 49 g-index
101 all docs	101 docs citations	101 times ranked	1761 citing authors

#	Article	IF	Citations
1	Structural geology of impact craters. Journal of Structural Geology, 2014, 62, 156-182.	2.3	156
2	Shockâ€metamorphosed zircon in terrestrial impact craters. Meteoritics and Planetary Science, 2006, 41, 433-454.	1.6	141
3	Dislocation microstructure and phase distribution in a lower crustal shear zone â€“ an example from the Ivrea-Zone, Italy. International Journal of Earth Sciences, 2002, 91, 445-458.	1.8	93
4	Experimental generation of shockâ€induced pseudotachylites along lithological interfaces. Meteoritics and Planetary Science, 2000, 35, 1275-1290.	1.6	92
5	Origin and emplacement of the impact formations at Chicxulub, Mexico, as revealed by the ICDP deep drilling at Yaxcopoilâ€1 and by numerical modeling. Meteoritics and Planetary Science, 2004, 39, 1035-1067.	1.6	84
6	Midâ€sized complex crater formation in mixed crystallineâ€sedimentary targets: Insight from modeling and observation. Meteoritics and Planetary Science, 2008, 43, 1955-1977.	1.6	79
7	The number of impact craters on Earth: Any room for further discoveries?. Earth and Planetary Science Letters, 2015, 425, 187-192.	4.4	78
8	Radial transpression ridges: A new structural feature of complex impact craters. Meteoritics and Planetary Science, 2000, 35, 1189-1201.	1.6	75
9	Feather features: A low-shock-pressure indicator in quartz. Journal of Geophysical Research, 2011, 116, .	3.3	70
10	The MEMIN research unit: Scaling impact cratering experiments in porous sandstones. Meteoritics and Planetary Science, 2013, 48, 8-22.	1.6	69
11	Deep Drilling into the Chesapeake Bay Impact Structure. Science, 2008, 320, 1740-1745.	12.6	65
12	Dike formation, cataclastic flow, and rock fluidization during impact cratering: an example from the Upheaval Dome structure, Utah. Earth and Planetary Science Letters, 2003, 214, 43-58.	4.4	63
13	Impact cratering in sandstone: The MEMIN pilot study on the effect of pore water. Meteoritics and Planetary Science, 2011, 46, 890-902.	1.6	61
14	The Carancas meteorite impact crater, Peru: Geologic surveying and modeling of crater formation and atmospheric passage. Meteoritics and Planetary Science, 2009, 44, 985-1000.	1.6	59
15	Stress gradients around porphyroclasts: palaeopiezometric estimates and numerical modelling. Journal of Structural Geology, 1998, 20, 163-173.	2.3	58
16	Ries and Chicxulub: Impact craters on Earth provide insights for Martian ejecta blankets. Meteoritics and Planetary Science, 2006, 41, 1587-1603.	1.6	57
17	Upheaval Dome, Utah, USA: Impact origin confirmed. Geology, 2008, 36, 227.	4.4	52
18	Folding within seconds. Geology, 2002, 30, 231.	4.4	49

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19	Rim uplift and crater shape in Meteor Crater: Effects of target heterogeneities and trajectory obliquity. Journal of Geophysical Research, 2009, 114, .	3.3	48
20	Numerical simulation of temperature effects at fissures due to shock loading. Meteoritics and Planetary Science, 2003, 38, 1451-1460.	1.6	41
21	Chemical modification of projectile residues and target material in a MEMIN cratering experiment. Meteoritics and Planetary Science, 2013, 48, 134-149.	1.6	41
22	Hypervelocity impacts on dry and wet sandstone: Observations of ejecta dynamics and crater growth. Meteoritics and Planetary Science, 2013, 48, 23-32.	1.6	40
23	Ejecta from experimental impact craters: Particle size distribution and fragmentation energy. Icarus, 2014, 237, 131-142.	2.5	40
24	Low-angle collision with Earth: The elliptical impact crater Matt Wilson, Northern Territory, Australia. Geology, 2009, 37, 459-462.	4.4	39
25	On the use of a split Hopkinson pressure bar in structural geology: High strain rate deformation of Seeberger sandstone and Carrara marble under uniaxial compression. Journal of Structural Geology, 2017, 97, 225-236.	2.3	39
26	Structural record of an oblique impact. Earth and Planetary Science Letters, 2006, 248, 43-53.	4.4	38
27	Crater morphology in sandstone targets: The MEMIN impact parameter study. Meteoritics and Planetary Science, 2013, 48, 50-70.	1.6	38
28	Mechanical twinning in quartz: Shock experiments, impact, pseudotachylites and fault breccias. Tectonophysics, 2011, 510, 69-79.	2.2	36
29	The terrestrial impact crater record: A statistical analysis of morphologies, structures, ages, lithologies, and more. Meteoritics and Planetary Science, 2021, 56, 1024-1070.	1.6	36
30	Geology and impact features of VargeÃ£o Dome, southern Brazil. Meteoritics and Planetary Science, 2012, 47, 51-71.	1.6	35
31	Deformation of dry and wet sandstone targets during hypervelocity impact experiments, as revealed from the MEMIN Program. Meteoritics and Planetary Science, 2013, 48, 71-86.	1.6	35
32	Impactâ€related dike breccia lithologies in the ICDP drill core Yaxcopoilâ€1, Chicxulub impact structure, Mexico. Meteoritics and Planetary Science, 2004, 39, 931-954.	1.6	34
33	The extraâ€large lightâ€gas gun of the Fraunhofer EMI: Applications for impact cratering research. Meteoritics and Planetary Science, 2013, 48, 3-7.	1.6	33
34	The Ries impact, a double-layer rampart crater on Earth. Geology, 2013, 41, 531-534.	4.4	33
35	Geochemical processes between steel projectiles and silica-rich targets in hypervelocity impact experiments. Geochimica Et Cosmochimica Acta, 2014, 133, 257-279.	3.9	32
36	Structure and impact indicators of the Cretaceous sequence of the ICDP drill core Yaxcopoilâ€1, Chicxulub impact crater, Mexico. Meteoritics and Planetary Science, 2004, 39, 1069-1088.	1.6	31

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37	Impact cratering experiments into quartzite, sandstone and tuff: The effects of projectile size and target properties on spallation. Icarus, 2014, 242, 211-224.	2.5	30
38	Structure and formation of a central uplift: A case study at the Upheaval Dome impact crater, Utah. , 2005, , .		29
39	Processes controlling the shrinkage of porphyroclasts in gabbroic shear zones. Journal of Structural Geology, 2000, 22, 471-487.	2.3	28
40	Target delamination by spallation and ejecta dragging: An example from the Ries crater's periphery. Earth and Planetary Science Letters, 2006, 252, 15-29.	4.4	28
41	The complex impact structure Serra da Cangalha, Tocantins State, Brazil. Meteoritics and Planetary Science, 2011, 46, 875-889.	1.6	28
42	Ejection behavior characteristics in experimental cratering in sandstone targets. Meteoritics and Planetary Science, 2013, 48, 33-49.	1.6	28
43	Identification of ancient impact structures: Low-angle faults and related geological features of crater basements. , 2000, , 279-307.		25
44	Reconstruction of the Chicxulub ejecta plume from its deposits in drill core Yaxcopoil-1. Bulletin of the Geological Society of America, 2007, 119, 1151-1167.	3.3	25
45	Particle size distribution and strain rate attenuation in hypervelocity impact and shock recovery experiments. Journal of Structural Geology, 2013, 56, 20-33.	2.3	25
46	Experimental impact cratering: A summary of the major results of the <scp>MEMIN</scp> research unit. Meteoritics and Planetary Science, 2018, 53, 1543-1568.	1.6	25
47	The complex impact crater Jebel Waqf as Suwwan in Jordan: Effects of target heterogeneity and impact obliquity on central uplift formation. , 2010, , .		23
48	The distribution of megablocks in the Ries crater, Germany: Remote sensing, field investigation, and statistical analyses. Meteoritics and Planetary Science, 2015, 50, 141-171.	1.6	22
49	Deriving Morphometric Parameters and the Simpleâ€toâ€Complex Transition Diameter From a Highâ€Resolution, Global Database of Fresh Lunar Impact Craters (D â‰ˆ 3 km). Journal of Geophysical Research E: Planets, 2018, 123, 2667-2690.	3.6	21
50	Asymmetric signatures in simple craters as an indicator for an oblique impact direction. Meteoritics and Planetary Science, 2008, 43, 2059-2072.	1.6	20
51	Deformation and melting of steel projectiles in hypervelocity cratering experiments. Meteoritics and Planetary Science, 2013, 48, 150-164.	1.6	20
52	Highâ€resolution studies of doubleâ€layered ejecta craters: Morphology, inherent structure, and a phenomenological formation model. Meteoritics and Planetary Science, 2015, 50, 173-203.	1.6	18
53	Impact cratering on slopes. Icarus, 2017, 290, 89-95.	2.5	18
54	Subsurface deformation of experimental hypervelocity impacts in quartzite and marble targets. Meteoritics and Planetary Science, 2018, 53, 1733-1755.	1.6	18

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55	Ejecta thickness and structural rim uplift measurements of Martian impact craters: Implications for the rim formation of complex impact craters. Journal of Geophysical Research E: Planets, 2016, 121, 1026-1053.	3.6	16
56	Highâ€pressure phase transitions of Î±â€quartz under nonhydrostatic dynamic conditions: A reconnaissance study at <scp>PETRA III</scp>. Meteoritics and Planetary Science, 2017, 52, 1465-1474.	1.6	15
57	Experimental shock synthesis of diamonds in a graphite gneiss. Meteoritics and Planetary Science, 2005, 40, 1299-1310.	1.6	14
58	Coupled effects of impact and orogeny: Is the marine Lockne crater, Sweden, pristine?. Meteoritics and Planetary Science, 2007, 42, 1995-2012.	1.6	14
59	The Serra da Cangalha impact structure, Brazil: Geological, stratigraphic and petrographic aspects of a recently confirmed impact structure. Journal of South American Earth Sciences, 2013, 45, 316-330.	1.4	14
60	Combined remote sensing analyses and landform evolution modeling reveal the terrestrial Bosumtwi impact structure as a Mars-like rampart crater. Earth and Planetary Science Letters, 2019, 506, 209-220.	4.4	14
61	The MEMIN research unit: Experimental impact cratering. Meteoritics and Planetary Science, 2013, 48, 1-2.	1.6	13
62	The structural inventory of a small complex impact crater: Jebel Waqf as Suwwan, Jordan. Meteoritics and Planetary Science, 2017, 52, 1351-1370.	1.6	13
63	Formation of shatter cones in MEMIN impact experiments. Meteoritics and Planetary Science, 2016, 51, 1477-1496.	1.6	12
64	Formation of shatter cones by symmetric fracture bifurcation: Phenomenological modeling and validation. Meteoritics and Planetary Science, 2016, 51, 1519-1533.	1.6	12
65	Impact Experiment on Gneiss: The Effects of Foliation on Cratering Process. Journal of Geophysical Research: Solid Earth, 2019, 124, 13532-13546.	3.4	12
66	Structural asymmetry in martian impact craters as an indicator for an impact trajectory. Icarus, 2012, 220, 194-204.	2.5	11
67	Saqqar: A 34Âkm diameter impact structure in Saudi Arabia. Meteoritics and Planetary Science, 2015, 50, 1925-1940.	1.6	11
68	Impact-generated pseudotachylitic breccia in drill core BH-5 HÃttberg, Siljan impact structure, Sweden. Gff, 2015, 137, 141-162.	1.2	10
69	Structural uplift and ejecta thickness of lunar mare craters: New insights into the formation of complex crater rims. Meteoritics and Planetary Science, 2017, 52, 2220-2240.	1.6	10
70	Dynamic Compressive Strength and Fragmentation in Felsic Crystalline Rocks. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006561.	3.6	10
71	Ramgarh, Rajasthan, India: A 10Âkm diameter complex impact structure. Meteoritics and Planetary Science, 2020, 55, 936-961.	1.6	10
72	Variation in Magnetic Fabrics at Low Shock Pressure Due to Experimental Impact Cratering. Journal of Geophysical Research: Solid Earth, 2019, 124, 9095-9108.	3.4	9

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73	Stress and strain during shock metamorphism. Icarus, 2021, 370, 114687.	2.5	9
74	Ries Bunte Breccia revisited: Indications for the presence of water in Itzing and Otting drill cores and implications for the emplacement process. Meteoritics and Planetary Science, 2016, 51, 1203-1222.	1.6	8
75	Long-term erosion rates as a function of climate derived from the impact crater inventory. Earth Surface Dynamics, 2019, 7, 459-473.	2.4	8
76	Tracing shock-wave propagation in the Chicxulub crater: Implications for the formation of peak rings. Geology, 2020, 48, 814-818.	4.4	8
77	Scaling of sub-surface deformation in hypervelocity impact experiments on porous sandstone. Tectonophysics, 2014, 634, 171-181.	2.2	7
78	In situ measurements of impact-induced pressure waves in sandstone targets. Journal of Geophysical Research E: Planets, 2014, 119, 2177-2187.	3.6	7
79	Phase transitions of Î±â€quartz at elevated temperatures under dynamic compression using a membraneâ€driven diamond anvil cell: Clues to impact cratering?. Meteoritics and Planetary Science, 2018, 53, 1687-1695.	1.6	7
80	Evidence for a large Paleozoic Impact Crater Strewn Field in the Rocky Mountains. Scientific Reports, 2018, 8, 13246.	3.3	7
81	The Erbisberg drilling 2011: Implications for the structure and postimpact evolution of the inner ring of the Ries impact crater. Meteoritics and Planetary Science, 2019, 54, 2448-2482.	1.6	7
82	Circum-Tharsis wrinkle ridges at Lunae Planum: Morphometry, formation, and crustal implications. Icarus, 2022, 374, 114808.	2.5	7
83	Dynamic compressive strength and fragmentation in sedimentary and metamorphic rocks. Tectonophysics, 2022, 824, 229221.	2.2	7
84	Subsurface deformation in hypervelocity cratering experiments into highâ€porosity tuffs. Meteoritics and Planetary Science, 2016, 51, 1849-1870.	1.6	5
85	Comment on â€œEarth and Moon impact flux increased at the end of the Paleozoicâ€. Science, 2019, 365, .	12.6	5
86	Asymmetric shock deformation at the Spider impact structure, Western Australia. Meteoritics and Planetary Science, 2021, 56, 331-351.	1.6	5
87	Reconnaissance survey of the Duolun ring structure in Inner Mongolia: Not an impact structure. Meteoritics and Planetary Science, 2017, 52, 1822-1842.	1.6	3
88	Geological and geophysical studies of the Agoudal impact structure (Central High Atlas, Morocco): New evidence for crater size and age. Meteoritics and Planetary Science, 2019, 54, 2483-2509.	1.6	3
89	The TanDEM-X Digital Elevation Model and Terrestrial Impact Structures. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 4128-4138.	4.9	3
90	Bridging the Gap <scp>III</scp>: Impact cratering in nature, experiment, and modeling. Meteoritics and Planetary Science, 2017, 52, 1281-1284.	1.6	2

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91	Petrographic investigation of shatter cone melt films recovered from MEMIN impact experiments in sandstone and iSALE modeling of their formation boundary conditions. Meteoritics and Planetary Science, 2018, 53, 1569-1593.	1.6	2
92	Central uplift collapse in acoustically fluidized granular targets: Insights from analog modeling. Meteoritics and Planetary Science, 2020, 55, 441-456.	1.6	2
93	Shock deformation microstructures in xenotime from the Spider impact structure, Western Australia. , 2021, , .		2
94	Rampart craters on Earth. , 2021, , 607-627.		1
95	The Cleanskin impact structure, Northern Territory and Queensland, Australia: A reconnaissance study. , 2021, , 69-80.		1
96	Obituary for a brilliant materials scientist-on Klaus Thoma's death. Meteoritics and Planetary Science, 2019, 54, 254-255.	1.6	0