

# Lutz Hecht

## List of Publications by Year in descending order

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66  
papers

1,902  
citations

236925

25  
h-index

276875

41  
g-index

66  
all docs

66  
docs citations

66  
times ranked

1654  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rare earth element and isotope (C, O, Sr) characteristics of hydrothermal carbonates: genetic implications for dolomite-hosted talc mineralization at GÃ¶pfersgrÃ¼n (Fichtelgebirge, Germany). <i>Chemical Geology</i> , 1999, 155, 115-130.	3.3	124
2	Hydrothermal alteration of monazite in the Precambrian crystalline basement of the Athabasca Basin (Saskatchewan, Canada): implications for the formation of unconformity-related uranium deposits. <i>Mineralium Deposita</i> , 2000, 35, 791-795.	4.1	119
3	New insights into the history and origin of the southern Maya block, SE MÃ©xico: Uâ€“Pbâ€“SHRIMP zircon geochronology from metamorphic rocks of the Chiapas massif. <i>International Journal of Earth Sciences</i> , 2007, 96, 253-269.	1.8	107
4	Origin and emplacement of the impact formations at Chicxulub, Mexico, as revealed by the ICDP deep drilling at YaxcopoilÃ©1 and by numerical modeling. <i>Meteoritics and Planetary Science</i> , 2004, 39, 1035-1067.	1.6	84
5	Geochemical identification of projectiles in impact rocks. <i>Meteoritics and Planetary Science</i> , 2006, 41, 1721-1735.	1.6	78
6	Mineralogical and geochemical characteristics of hydrothermal alteration and episyenitization in the KÃ¶nigshain granites, northern Bohemian Massif, Germany. <i>International Journal of Earth Sciences</i> , 1999, 88, 236-252.	1.8	77
7	Geochemistry of Impactites. <i>Elements</i> , 2012, 8, 37-42.	0.5	65
8	Composition of impact melt particles and the effects of postâ€“impact alteration in suevitic rocks at the YaxcopoilÃ©1 drill core, Chicxulub crater, Mexico. <i>Meteoritics and Planetary Science</i> , 2004, 39, 1169-1186.	1.6	60
9	Constraints on the origin of zonation of the granite complexes in the Fichtelgebirge (Germany and) Tj ETQq1 1 0.784314 rgBT /Overlo Fur <i>Allgemeine Geologie</i> , 1997, 86, S93-S109.	1.3	54
10	Petrology and geochemistry of metaigneous rocks from a Grenvillian basement fragment in the Maya block: the Guichicovi complex, Oaxaca, southern Mexico. <i>Precambrian Research</i> , 2003, 124, 41-67.	2.7	53
11	Granitoid magmatism of the NW Bohemian massif revealed: gravity data, composition, age relations and phase concept. <i>Geologische Rundschau: Zeitschrift Fur Allgemeine Geologie</i> , 1997, 86, S45-S63.	1.3	49
12	Reactivity of sandstone and siltstone samples from the Ketzin pilot CO2 storage site-Laboratory experiments and reactive geochemical modeling. <i>Environmental Earth Sciences</i> , 2013, 70, 3687-3708.	2.7	49
13	Late Mesoproterozoic to Early Paleozoic history of metamorphic basement from the southeastern Chiapas Massif Complex, Mexico, and implications for the evolution of NW Gondwana. <i>Lithos</i> , 2018, 300-301, 177-199.	1.4	46
14	A tsunami deposit at the Cretaceous/Paleogene boundary in the NeuquÃ©n Basin of Argentina. <i>Cretaceous Research</i> , 2005, 26, 283-297.	1.4	43
15	Chemical modification of projectile residues and target material in a MEMIN cratering experiment. <i>Meteoritics and Planetary Science</i> , 2013, 48, 134-149.	1.6	41
16	The formation of <sc>IIE</sc> iron meteorites investigated by the chondruleâ€“bearing Mont Dieu meteorite. <i>Meteoritics and Planetary Science</i> , 2015, 50, 1173-1196.	1.6	41
17	Uppermost impact fallback layer in the Bosumtwi crater (Ghana): Mineralogy, geochemistry, and comparison with Ivory Coast tektites. <i>Meteoritics and Planetary Science</i> , 2007, 42, 709-729.	1.6	39
18	Chemical projectileâ€“target interaction and liquid immiscibility in impact glass from the Wabar craters, Saudi Arabia. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 121, 291-310.	3.9	37

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19	Impact-related dike breccia lithologies in the ICDP drill core Yaxcopoil-1, Chicxulub impact structure, Mexico. <i>Meteoritics and Planetary Science</i> , 2004, 39, 931-954.	1.6	34
20	Secondary Ca-Al silicates in plutonic rocks: implications for their cooling history. <i>Contributions To Mineralogy and Petrology</i> , 2001, 141, 415-429.	3.1	33
21	Geochemical processes between steel projectiles and silica-rich targets in hypervelocity impact experiments. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 133, 257-279.	3.9	32
22	Platinum group elements in impactites of the ICDP Chicxulub drill core Yaxcopoil-1: Are there traces of the projectile?. <i>Meteoritics and Planetary Science</i> , 2004, 39, 1009-1016.	1.6	31
23	Density current origin of a melt-bearing impact ejecta blanket (Ries suevite, Germany). <i>Geology</i> , 2017, 45, 855-858.	4.4	31
24	Small-scale Sr and O isotope variations through the UG2 in the eastern Bushveld Complex: The role of crustal fluids. <i>Chemical Geology</i> , 2018, 485, 100-112.	3.3	31
25	Provenance, age constraints and metamorphism of Ediacaran metasedimentary rocks from the El Triunfo Complex (SE Chiapas, México): evidence for Rodinia breakup and Iapetus active margin. <i>International Geology Review</i> , 2016, 58, 2065-2091.	2.1	29
26	Reconstruction of the Chicxulub ejecta plume from its deposits in drill core Yaxcopoil-1. <i>Bulletin of the Geological Society of America</i> , 2007, 119, 1151-1167.	3.3	25
27	Differentiation and emplacement of the Worthington Offset Dike of the Sudbury impact structure, Ontario. <i>Meteoritics and Planetary Science</i> , 2008, 43, 1659-1679.	1.6	25
28	Experimental impact cratering: A summary of the major results of the MEMIN research unit. <i>Meteoritics and Planetary Science</i> , 2018, 53, 1543-1568.	1.6	25
29	Silicate liquid immiscibility in impact melts. <i>Meteoritics and Planetary Science</i> , 2018, 53, 1594-1632.	1.6	25
30	Chemical composition of radioactive accessory minerals: implications for the evolution, alteration, age, and uranium fertility of the Fichtelgebirge granites (NE Bavaria, Germany). <i>Neues Jahrbuch Fur Mineralogie, Abhandlungen</i> , 2008, 185, 161-182.	0.3	24
31	Orthopyroxene inclusions in the MG1 chromitite layer of the Bushveld Complex: implications for cumulate formation and recrystallisation. <i>Contributions To Mineralogy and Petrology</i> , 2018, 173, 1.	3.1	22
32	Deformation and melting of steel projectiles in hypervelocity cratering experiments. <i>Meteoritics and Planetary Science</i> , 2013, 48, 150-164.	1.6	20
33	Electrochemical Processes in a Crystal Mush: Cyclic Units in the Upper Critical Zone of the Bushveld Complex, South Africa. <i>Journal of Petrology</i> , 2015, 56, 1229-1250.	2.8	19
34	Petrology of impact melt rocks from the Chesapeake Bay crater, USA. , 2009, , .		17
35	The Chelyabinsk meteorite: New insights from a comprehensive electron microscopy and Raman spectroscopy study with evidence for graphite in olivine of ordinary chondrites. <i>Meteoritics and Planetary Science</i> , 2018, 53, 416-432.	1.6	17
36	Chemical and Textural Re-equilibration in the UG2 Chromitite Layer of the Bushveld Complex, South Africa. <i>Journal of Petrology</i> , 2018, 59, 1193-1216.	2.8	17

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37	Braided peridotite sills and metasomatism in the Rum Layered Suite, Scotland. <i>Contributions To Mineralogy and Petrology</i> , 2020, 175, 17.	3.1	17
38	Correlating laser-generated melts with impact-generated melts: An integrated thermodynamic-petrologic approach. <i>Geophysical Research Letters</i> , 2016, 43, 10,602.	4.0	16
39	Laser-induced melting experiments: Simulation of short-term high-temperature impact processes. <i>Meteoritics and Planetary Science</i> , 2017, 52, 1475-1494.	1.6	16
40	Thermal equilibration of iron meteorite and pallasite parent bodies recorded at the mineral scale by Fe and Ni isotope systematics. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 217, 95-111.	3.9	15
41	The reaction of carbonates in contact with laser-generated, superheated silicate melts: Constraining impact metamorphism of carbonate-bearing target rocks. <i>Meteoritics and Planetary Science</i> , 2018, 53, 1644-1686.	1.6	15
42	New impact melt rock from the Roter Kamm impact structure, Namibia: Further constraints on impact age, melt rock chemistry, and projectile composition. <i>Meteoritics and Planetary Science</i> , 2008, 43, 1201-1218.	1.6	13
43	The record of ground zero in the Chesapeake Bay impact crater—Suevites and related rocks. , 2009, , .		13
44	Impact spherules from Karelia, Russia: Possible ejecta from the 2.02 Ga Vredefort impact event. <i>Geology</i> , 2014, 42, 375-378.	4.4	13
45	Immiscible silicate liquids and phosphoran olivine in Netschaevite silicate: Analogue for planetesimal core-mantle boundaries. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 197, 378-395.	3.9	13
46	On exhumation velocities of high-pressure units based on insights from chemical zoning in garnet (Tianshan, NW China). <i>Earth and Planetary Science Letters</i> , 2021, 570, 117065.	4.4	13
47	A multidisciplinary approach combining geochemical, gravity and structural data: implications for pluton emplacement and zonation. <i>Geological Society Special Publication</i> , 1999, 168, 95-110.	1.3	12
48	Petrogenesis of main group pallasite meteorites based on relationships among texture, mineralogy, and geochemistry. <i>Meteoritics and Planetary Science</i> , 2019, 54, 2814-2844.	1.6	12
49	Enclaves in the S-type granites of the K�sseine massif (Fichtelgebirge, Germany): implications for the origin of granites. <i>Geologische Rundschau: Zeitschrift Fur Allgemeine Geologie</i> , 1997, 86, S125-S140.	1.3	11
50	Iron deficiency in pyrrhotite of suevites from the Chesapeake Bay impact crater, USA—A consequence of shock metamorphism?. <i>Meteoritics and Planetary Science</i> , 2012, 47, 277-295.	1.6	10
51	Tenoumer impact crater, Mauritania: Impact melt genesis from a lithologically diverse target. <i>Meteoritics and Planetary Science</i> , 2016, 51, 323-350.	1.6	10
52	Variations in Composition, Texture, and Platinum Group Element Mineralization in the Lower Group and Middle Group Chromitites of the Northwestern Bushveld Complex, South Africa. <i>Economic Geology</i> , 2019, 114, 569-590.	3.8	10
53	Reconstructing the metamorphic evolution of the Ara�sua�roren (SE Brazil) using in situ U-Pb garnet dating and P-T modelling. <i>Journal of Metamorphic Geology</i> , 2021, 39, 1145-1171.	3.4	10
54	A Comparison of In Situ Analytical Methods for Trace Element Measurement in Gold Samples from Various South African Gold Deposits. <i>Geostandards and Geoanalytical Research</i> , 2016, 40, 267-289.	3.1	8

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55	A large meteoritic event over Antarctica ca. 430 ka ago inferred from chondritic spherules from the SÃr Rondane Mountains. <i>Science Advances</i> , 2021, 7, .	10.3	8
56	Evaluating urban micrometeorites as a research resourceâ€”A large population collected from a single rooftop. <i>Meteoritics and Planetary Science</i> , 2021, 56, 1531-1555.	1.6	8
57	The Erbisberg drilling 2011: Implications for the structure and postimpact evolution of the inner ring of the Ries impact crater. <i>Meteoritics and Planetary Science</i> , 2019, 54, 2448-2482.	1.6	7
58	Efflorescent Sulfate Crystallization on Fractured and Polished Colloform Pyrite Surfaces: A Migration Pathway of Trace Elements. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 12.	2.0	6
59	Permoâ€”Triassic metamorphism in the MÃrida Andes, Venezuela: new insights from geochronology, O-isotopes, and geothermobarometry. <i>International Journal of Earth Sciences</i> , 2021, 110, 2465-2493.	1.8	6
60	Evidence for shockâ€”induced anhydrite recrystallization and decomposition at the UNAMâ€”7 drill core from the Chicxulub impact structure. <i>Meteoritics and Planetary Science</i> , 2019, 54, 2334-2356.	1.6	5
61	Lateral variations in the Unit 7â€”8 boundary zone of the Rum Eastern Layered Intrusion, NW Scotland: implications for the origin and timing of Cr-spinel seam formation. <i>Contributions To Mineralogy and Petrology</i> , 2020, 175, 1.	3.1	3
62	Melt in the impact breccias from the Eyreville drill cores, Chesapeake Bay impact structure, USA. <i>Meteoritics and Planetary Science</i> , 2011, 46, 396-430.	1.6	2
63	Advanced EDS and ÂµXRF Analysis of Earth and Planetary Materials using Spectrum Imaging, Computer-Controlled SEM and an Annular SDD. <i>Microscopy and Microanalysis</i> , 2014, 20, 1716-1717.	0.4	2
64	Petrographic investigation of shatter cone melt films recovered from MEMIN impact experiments in sandstone and iSALE modeling of their formation boundary conditions. <i>Meteoritics and Planetary Science</i> , 2018, 53, 1569-1593.	1.6	2
65	Heterogeneity of melts in impact deposits and implications for their origin (Ries suevite, Germany). <i>Meteoritics and Planetary Science</i> , 2019, 54, 2409-2447.	1.6	2
66	Petrographic and chemical studies of the Cretaceous-Paleogene boundary sequence at El Guayal, Tabasco, Mexico: Implications for ejecta plume evolution from the Chicxulub impact crater. , 2021, , 207-233.		1