

Robert Cooper Liebermann

List of Publications by Year in descending order

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62
papers

3,817
citations

101496

36
h-index

128225

60
g-index

62
all docs

62
docs citations

62
times ranked

1482
citing authors

#	ARTICLE	IF	CITATIONS
1	My Research Connections with Russian Scientists over the Past Half Century. International Journal of Geosciences, 2022, 13, 155-173.	0.2	2
2	My Research Connections with English Scientists over the Past Six Decades. International Journal of Geosciences, 2022, 13, 259-267.	0.2	1
3	Stony Brook's Collaborations with Czech Scientists. International Journal of Geosciences, 2021, 12, 487-498.	0.2	6
4	My Research Collaborations with Chinese Scientists over the Past Three Decades. International Journal of Geosciences, 2021, 12, 960-983.	0.2	3
5	The Birth of Mineral Physics at the ANU in the 1970s. Minerals (Basel, Switzerland), 2020, 10, 163.	0.8	3
6	The Orson Anderson Era of Mineral Physics at Lamont in the 1960s. Minerals (Basel, Switzerland), 2019, 9, 342.	0.8	6
7	My Career as a Mineral Physicist at Stony Brook: 1976-2019. Minerals (Basel, Switzerland), 2019, 9, 761.	0.8	4
8	Tracking silica in Earth's upper mantle using new sound velocity data for coesite to 5.8 GPa and 1073 K. Geophysical Research Letters, 2017, 44, 7757-7765.	1.5	16
9	Creating Career Paths for African-American Students in Geosciences. Eos, 2016, 97, .	0.1	1
10	Acoustic travel time gauges for <i>in-situ</i> determination of pressure and temperature in multi-anvil apparatus. Journal of Applied Physics, 2015, 118, .	1.1	25
11	Elastic wave velocities of peridotite KLB-1 at mantle pressures and implications for mantle velocity modeling. Geophysical Research Letters, 2015, 42, 3289-3297.	1.5	10
12	Anomalous elastic properties of coesite at high pressure and implications for the upper mantle X-discontinuity. Earth and Planetary Science Letters, 2015, 412, 42-51.	1.8	39
13	The role of serendipity in my career in mineral physics: 1963-2013. Physics of the Earth and Planetary Interiors, 2014, 228, 307-323.	0.7	5
14	From Airlie House in 1977 to Granlibakken in 2012: 35 Years of evolution of mineral physics. Physics of the Earth and Planetary Interiors, 2014, 228, 36-45.	0.7	4
15	Study of the Earth's interior using measurements of sound velocities in minerals by ultrasonic interferometry. Physics of the Earth and Planetary Interiors, 2014, 233, 135-153.	0.7	65
16	Weidner receives 2011 Inge Lehmann Medal: Citation. Eos, 2012, 93, 24-24.	0.1	0
17	High-temperature elasticity of polycrystalline orthoenstatite (MgSiO ₃). American Mineralogist, 2011, 96, 577-585.	0.9	17
18	Multi-anvil, high pressure apparatus: a half-century of development and progress. High Pressure Research, 2011, 31, 493-532.	0.4	103

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19	Bob-san and High Pressure Science and Technology in Japan: A 40-Year History. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2011, 21, 115-126.	0.1	7
20	Indoor seismology by probing the Earth's interior by using sound velocity measurements at high pressures and temperatures. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9145-9150.	3.3	68
21	High-temperature elasticity of magnesioferrite spinel. Physics and Chemistry of Minerals, 2007, 34, 345-350.	0.3	13
22	Elasticity of polycrystalline pyrope (Mg ₃ Al ₂ Si ₃ O ₁₂) to 9GPa and 1000Â°C. Physics of the Earth and Planetary Interiors, 2006, 155, 179-190.	0.7	68
23	Dual mode ultrasonic interferometry in multi-anvil high pressure apparatus using single-crystal olivine as the pressure standard. High Pressure Research, 2004, 24, 183-191.	0.4	18
24	Ultrasonic measurements of the sound velocities in polycrystalline San Carlos olivine in multi-anvil, high-pressure apparatus. Physics of the Earth and Planetary Interiors, 2004, 143-144, 19-31.	0.7	37
25	Modern techniques in measuring elasticity of Earth materials at high pressure and high temperature using ultrasonic interferometry in conjunction with synchrotron X-radiation in multi-anvil apparatus. Physics of the Earth and Planetary Interiors, 2004, 143-144, 559-574.	0.7	133
26	In situ measurements of sound velocities and densities across the orthopyroxene â†' high-pressure clinopyroxene transition in MgSiO ₃ at high pressure. Physics of the Earth and Planetary Interiors, 2004, 147, 27-44.	0.7	106
27	Sound velocity measurement using transfer function method. Journal of Physics Condensed Matter, 2002, 14, 11337-11342.	0.7	83
28	Elasticity of (Mg 0.83 ,Fe 0.17)O ferropericlae at high pressure: ultrasonic measurements in conjunction with X-radiation techniques. Earth and Planetary Science Letters, 2002, 203, 557-566.	1.8	88
29	Pressure-induced softening of shear modes in ZnO. Physical Review B, 2001, 63, .	1.1	64
30	Elastic wave velocities of pyropeâ€œmajorite garnets (Py ₆₂ Mj ₃₈ and Py ₅₀ Mj ₅₀) to 9 GPa. Physics of the Earth and Planetary Interiors, 2000, 120, 153-163.	0.7	39
31	Activation volume of Si diffusion in San Carlos olivine: Implications for upper mantle rheology. Journal of Geophysical Research, 1999, 104, 25529-25542.	3.3	40
32	Elastic wave velocities at Mg ₃ Al ₂ Si ₃ O ₁₃ -pyrope garnet to 10 GPa. American Mineralogist, 1999, 84, 384-388.	0.9	63
33	Sound velocities in MgSiO ₃ -garnet to 8 GPa. Geophysical Research Letters, 1998, 25, 4553-4556.	1.5	42
34	Ultrasonic Shear Wave Velocities of MgSiO ₃ Perovskite at 8 GPa and 800 K and Lower Mantle Composition. , 1998, 281, 677-679.		72
35	Sound velocities of polycrystalline MgSiO ₃ -orthopyroxene to 10 GPa at room temperature. American Mineralogist, 1998, 83, 444-450.	0.9	82
36	Sound velocity measurements at mantle transition zone conditions of pressure and temperature using ultrasonic interferometry in a multianvil apparatus. Geophysical Monograph Series, 1998, , 41-61.	0.1	32

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37	Microstructures and iron partitioning in (Mg,Fe)SiO ₃ perovskite-(Mg,Fe)O magnesio-wüstite assemblages: An analytical transmission electron microscopy study. Journal of Geophysical Research, 1997, 102, 5265-5280.	3.3	72
38	Elasticity of stishovite at high pressure. Physics of the Earth and Planetary Interiors, 1996, 96, 113-127.	0.7	89
39	Elastic wave velocity measurement in multi-anvil apparatus to 10 GPa using ultrasonic interferometry. Physics of the Earth and Planetary Interiors, 1996, 98, 79-91.	0.7	106
40	In situ X-ray observations of the coesite-stishovite transition: reversed phase boundary and kinetics. Physics and Chemistry of Minerals, 1996, 23, 1.	0.3	283
41	Fe-Mg interdiffusion in olivine up to 9 GPa at T = 600-900°C; experimental data and comparison with defect calculations. Physics of the Earth and Planetary Interiors, 1995, 89, 199-218.	0.7	81
42	Elastic wave velocities of a pyrope-majorite garnet to 3 GPa. Physics of the Earth and Planetary Interiors, 1994, 86, 35-44.	0.7	60
43	Hot pressing of polycrystals of high-pressure phases of mantle minerals in multi-anvil apparatus. Pure and Applied Geophysics, 1993, 141, 467-484.	0.8	38
44	Electron microscopy of (Mg, Fe)SiO ₃ Perovskite: Evidence for structural phase transitions and implications for the lower mantle. Journal of Geophysical Research, 1992, 97, 12327-12347.	3.3	102
45	Fe-Mg interdiffusion in single crystal olivine at very high pressure and controlled oxygen fugacity: technological advances and initial data at 7 GPa. Physics of the Earth and Planetary Interiors, 1992, 70, 102-118.	0.7	32
46	An olivine to beta phase transformation mechanism Mg ₂ SiO ₄ . Geophysical Research Letters, 1991, 18, 89-92.	1.5	45
47	Spinel elasticity and seismic structure of the transition zone of the mantle. Nature, 1991, 354, 143-145.	13.7	102
48	Hot pressing and characterization of polycrystals of Mg ₂ SiO ₄ , for acoustic velocity measurements. Geophysical Research Letters, 1990, 17, 1331-1334.	1.5	46
49	Deviatoric stress in a girdle-anvil type high-pressure apparatus: effect on the quartz-coesite phase transformation. Physics of the Earth and Planetary Interiors, 1989, 54, 378-385.	0.7	25
50	Olivine as an in situ piezometer in high pressure apparatus. Physics and Chemistry of Minerals, 1988, 15, 493-497.	0.3	47
51	Mechanism of the olivine-spinel transformation in Co ₂ SiO ₄ . Physics and Chemistry of Minerals, 1988, 15, 498-506.	0.3	63
52	Oxygen and silicon self-diffusion in natural olivine at T = 1300°C. Physics of the Earth and Planetary Interiors, 1988, 50, 240-250.	0.7	49
53	Acoustic and static compression experiments on the elastic behavior of hematite. Journal of Geophysical Research, 1986, 91, 4651-4656.	3.3	55
54	Elastic properties from acoustic and volume compression experiments. Physics of the Earth and Planetary Interiors, 1981, 25, 140-158.	0.7	170

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55	Elasticity of single crystal pyrope and implications for garnet solid solution series. <i>Physics of the Earth and Planetary Interiors</i> , 1980, 22, 111-121.	0.7	147
56	Pressure and temperature dependence of the elastic properties of polycrystalline trevorite (NiFe ₂ O ₄). <i>Physics of the Earth and Planetary Interiors</i> , 1972, 6, 360-365.	0.7	16
57	Magnetoelastic interactions in hematite: Implications for geophysics. <i>Journal of Geophysical Research</i> , 1971, 76, 2735-2756.	3.3	73
58	Anomalies in the Compressional and Shear Properties of Hematite in the Region of the Morin Transition. <i>Journal of Applied Physics</i> , 1970, 41, 1414-1416.	1.1	17
59	Equations for the elastic constants and their pressure derivatives for three cubic lattices and some geophysical applications. <i>Physics of the Earth and Planetary Interiors</i> , 1970, 3, 61-85.	0.7	124
60	Some elastic constant data on minerals relevant to geophysics. <i>Reviews of Geophysics</i> , 1968, 6, 491-524.	9.0	481
61	Elastic constants of polycrystalline hematite as a function of pressure to 3 kilobars. <i>Journal of Geophysical Research</i> , 1968, 73, 6585-6590.	3.3	120
62	Sound Velocities in Rocks and Minerals: Experimental Methods, Extrapolations to Very High Pressures, and Results* *Lamont Geological Observatory Contribution No. 1062.. <i>Physical Acoustics</i> , 1968, , 329-472.	0.1	9