Adiabats of quartz, coesite, olivine, and magnesium oxid adiabatic gradient in the Earth's mantle

Journal of Geophysical Research 87, 5501-5506 DOI: 10.1029/jb087ib07p05501

Citation Report

#	Article	IF	CITATIONS
1	Elastic properties of a single-crystal forsterite Mg2SiO4, up to 1,200 K. Physics and Chemistry of Minerals, 1983, 10, 38-46.	0.8	181
2	Melting temperature, adiabats, and Grüneisen parameter of lithium, sodium and potassium versus pressure. Physical Review B, 1983, 27, 6754-6762.	3.2	152
3	Mineral and melt physics a summary of research in the United States, 1979–1982. Reviews of Geophysics, 1983, 21, 1487-1503.	23.0	46
4	Lindemann Melting Law: Anharmonic correction and test of its validity for minerals. Journal of Geophysical Research, 1984, 89, 7821-7835.	3.3	80
5	A universal thermal equation-of-state. Journal of Geodynamics, 1984, 1, 185-214.	1.6	124
6	On a Simple Relation for the Adiabatic Andersonâ€Grüneisen Parameter in Solids. Physica Status Solidi (B): Basic Research, 1985, 129, K105.	1.5	0
7	Viscosity profile of the lower mantle. Geophysical Journal International, 1985, 83, 199-213.	2.4	14
8	On the isothermal compressibility of silicate liquids at high pressure. Earth and Planetary Science Letters, 1985, 74, 350-360.	4.4	55
9	High temperature experiments on the elastic and anelastic behaviour of magmatic rocks. Physics of the Earth and Planetary Interiors, 1985, 40, 223-247.	1.9	120
10	Adiabaticity and viscosity in deep mantle convection. Geophysical Research Letters, 1986, 13, 38-41.	4.0	12
11	Infrared vibrational spectra of Beta-Phase Mg2SiO4 and Co2SiO4 to Pressures of 27 GPa. Physics and Chemistry of Minerals, 1986, 13, 141-145.	0.8	30
12	On the pressure dependence of grüneisen parameter in solids. Physica Status Solidi (B): Basic Research, 1986, 133, 101-110.	1.5	36
13	The pressure dependence of the thermal conductivity of insulators-the Callaway integral versus the Leibfried-Schlomann formula. Journal of Physics C: Solid State Physics, 1986, 19, 2877-2882.	1.5	3
14	The pressure dependence of the thermal conductivity in mixed crystals. Journal of Physics C: Solid State Physics, 1987, 20, 5479-5484.	1.5	2
15	Thermodynamics for (Mg, Fe)2SiO4 from the Hugoniot. Geophysical Monograph Series, 1987, , 373-384.	0.1	20
16	Pressure dependence of Raman spectra of SiO2 polymorphs: α-quartz, coesite, and stishovite. Geophysical Monograph Series, 1987, , 347-359.	0.1	85
17	A seismic equation of state II. Shear properties and thermodynamics of the lower mantle. Physics of the Earth and Planetary Interiors, 1987, 45, 307-323.	1.9	187
18	Vibrational spectrum of MgSiO ₃ perovskite: Zeroâ€pressure Raman and midâ€infrared spectra to 27 GPa. Journal of Geophysical Research, 1987, 92, 8116-8128.	3.3	94

#	ARTICLE	IF	CITATIONS
19	Simple covalent potential models of tetrahedral SiO2: Applications to ?-quartz and coesite at pressure. Physics and Chemistry of Minerals, 1988, 16, 199.	0.8	50
20	Elastic Properties and Equations of State. , 1988, , .		8
21	Thermal expansion of periclase and olivine and their anharmonic properties. , 1988, , 361-375.		1
22	Hugoniot equation of state of twelve rocks. , 1988, , 199-236.		0
23	The bulk modulus-volume relationship for oxide compounds and related geophysical problems. , 1988, , 153-165.		1
24	Effects of temperature and pressure on interatomic distances in oxygen-based minerals. , 1988, , 407-413.		35
25	Derivation of Wachtman's equation for the temperature dependence of the elastic moduli of oxide compounds. , 1988, , 166-170.		1
26	The bulk modulus-volume relationship for oxides. , 1988, , 283-289.		32
27	The single-crystal elastic moduli of stishovite. , 1988, , 459-465.		0
28	Some elastic constant data on minerals relevant to geophysics. , 1988, , 237-270.		2
29	Composition of the upper mantle: Geophysical tests of two petrological models. , 1988, , 513-516.		1
30	Homogeneity and constitution of the Earth's lower mantle and outer core. , 1988, , 341-348.		0
31	Elasticity and constitution of the Earth's interior. , 1988, , 31-90.		3
32	Theory of binding of ionic crystals: Application to alkali-halide and alkaline-Earth-dihalide crystals. , 1988, , 314-320.		1
33	The determination of the elastic constants of natural almandine-pyrope garnet by rectangular parallelepiped resonance method. , 1988, , 376-383.		8
34	The velocity of compressional waves in rocks to 10 kilobars, part 2. , 1988, , 91-116.		8
35	The elastic properties of composite materials. , 1988, , 384-406.		1
36	The effect of pressure upon the elastic parameters of isotropic solids, according to Murnaghan's theory of finite strain. , 1988, , 21-30.		0

CITATION REPORT

C		
\sim		

#	Article	IF	CITATIONS
37	Temperature coefficients of elastic constants of single crystal MgO between 80 And 1,300 K. , 1988, , 503-512.		0
38	Density distribution in the Earth. , 1988, , 1-20.		6
39	X-ray diffraction and optical observations on crystalline solids up to 300 kbar. , 1988, , 193-198.		0
40	Thermal expansion of silicate perovskite and atratification of the Earth's mantle. , 1988, , 521-523.		0
41	Reflection properties of phase transition and compositional change models of the 670-km Discontinuity. , 1988, , 488-502.		0
42	Ab initio structural and thermoelastic properties of orthorhombic MgSiO3 perovskite. , 1988, , 517-520.		0
43	Static compression of iron T78 GPa with rare gas solids as pressure-transmitting media. , 1988, , 524-531.		0
44	Equations of state of iron sulfide and constraints on the sulfur content of the Earth. , 1988, , 427-440.		0
45	Post-oxide phases of forsterite and enstatite. , 1988, , 358-360.		0
46	Velocity-density systematics and its implications for the iron content of the mantle. , 1988, , 335-340.		0
47	Composition of the Earth's mantle. , 1988, , 117-133.		0
48	Hydrostatic compression of perovskite-type MgSiO3. , 1988, , 466-474.		0
49	Some geophysical constraints on the chemical composition of the Earth's lower mantle. , 1988, , 475-487.		0
50	Pressure dependence of the thermal Grüneisen parameter, with application to the Earth's lower mantle and outer core. , 1988, , 349-357.		0
51	Elasticity of coesite. , 1988, , 414-426.		0
52	Velocity-density systematics: Derivation from Debye theory and the effect of ionic size. , 1988, , 305-313.		0
53	Elasticity of pyroxene-garnet and pyroxene-ilmenite phase transformations in germanates. , 1988, , 321-334.		64
54	A seismic equation of state. , 1988, , 171-192.		0

CITATION REPORT

#	ARTICLE	IF	CITATIONS
55	Elastic constants of single-crystal forsterite as a function of temperature and pressure. , 1988, , 271-282.		1
56	Equation of state of polycrystalline and single-crystal MgO to 8 kilobars and 800°K. , 1988, , 290-304.		0
57	The use of ultrasonic measurements under modest compression to estimate compression at high pressure. , 1988, , 134-152.		0
58	The temperature of shock compressed iron. , 1988, , 532-541.		0
59	The equation of state for iron and the Earth's core. , 1988, , 446-458.		5
60	Grüneisen parameter of quartz, quartzite, and fluorite at high pressure. , 1988, , 441-445.		0
61	Thermal expansion measurements at very high pressure, systematics, and a case for a chemically homogeneous mantle. Geophysical Research Letters, 1989, 16, 1347-1350.	4.0	165
62	On the stability of a fluid layer containing a univariant phase transition: application to planetary interiors. Physics of the Earth and Planetary Interiors, 1989, 55, 10-25.	1.9	23
63	Shock wave equation of state and finite strain theory. Journal of Geophysical Research, 1989, 94, 5873-5886.	3.3	140
64	The O-Si (Oxygen-Silicon) system. Bulletin of Alloy Phase Diagrams, 1990, 11, 43-61.	0.2	19
65	Thermal expansion, heat capacity, and entropy of MgO at mantle pressures. Physics and Chemistry of Minerals, 1990, 17, 142.	0.8	81
66	Thermal properties of forsterite at mantle pressures derived from vibrational spectroscopy. Physics and Chemistry of Minerals, 1990, 17, 149.	0.8	126
67	Thermal expansivity versus pressure at constant temperature: A reâ€examination. Geophysical Research Letters, 1990, 17, 685-688.	4.0	39
68	Fundamental thermodynamic relations and silicate melting with implications for the constitution of <i>D</i> ″. Journal of Geophysical Research, 1990, 95, 19311-19325.	3.3	123
69	A new approach to laser heating in high pressure mineral physics. Geophysical Research Letters, 1991, 18, 1147-1150.	4.0	114
70	Highâ€ŧemperature thermodynamic properties of forsterite. Journal of Geophysical Research, 1991, 96, 11805-11816.	3.3	155
71	Thermal properties of βâ€Mg ₂ SiO ₄ at mantle pressures derived from vibrational spectroscopy: Implications for the mantle at 400 km depth. Journal of Geophysical Research, 1991, 96, 11817-11829.	3.3	68
72	Carbonate stability in the Earth's mantle: A vibrational spectroscopic study of aragonite and dolomite at high pressures and temperatures. Journal of Geophysical Research, 1991, 96, 17997-18009.	3.3	94

CITATION REPORT

#	Article	IF	CITATIONS
73	The volume dependence of the Grueneisen constant related to the elastic moduli. High Pressure Research, 1992, 9, 11-14.	1.2	0
74	Thermal expansivity in the lower mantle. Geophysical Research Letters, 1992, 19, 1983-1986.	4.0	258
75	Thermodynamic and anharmonic properties of forsterite, αâ€Mg ₂ SiO ₄ : Computer modelling versus highâ€pressure and highâ€temperature measurements. Journal of Geophysical Research, 1992, 97, 19791-19801.	3.3	17
76	Sound velocities of MgO to very high compression. Earth and Planetary Science Letters, 1992, 114, 185-192.	4.4	56
77	Melting of the FeFeO and the FeFeS systems at high pressure: Constraints on core temperatures. Earth and Planetary Science Letters, 1992, 111, 217-227.	4.4	184
78	The volume dependence of the Grüneisen constant related to the elastic moduli. Journal of Physics and Chemistry of Solids, 1992, 53, 865-870.	4.0	4
79	The mixed P, T derivatives of elastic moduli and implications on extrapolating throughout Earth's mantle. Physics of the Earth and Planetary Interiors, 1993, 80, 37-48.	1.9	28
80	Highâ€pressure infrared sepctra of â^â€quartz, coesite, stishovite and silica glass. Journal of Geophysical Research, 1993, 98, 22157-22170.	3.3	90
81	A thermodynamic method for computing thermal expansivity, \hat{I}_{\pm} , versus T along isobars for silicate perovskite. Physics of the Earth and Planetary Interiors, 1994, 85, 227-236.	1.9	45
82	On the Pressure and Volume Dependence of the Grüneisen Parameter and Debye Temperature for NaCl Crystals. Physica Status Solidi (B): Basic Research, 1995, 187, 497-500.	1.5	8
83	Temperature and chemistry of the core-mantle boundary. Chemical Geology, 1995, 120, 199-205.	3.3	35
84	Equation of state for lambda transition in quartz. Journal of Geophysical Research, 1995, 100, 8489-8499.	3.3	20
85	MELTING TEMPERATURE OF THE EARTH'S MANTLE AND CORE: Earth's Thermal Structure. Annual Review of Earth and Planetary Sciences, 1996, 24, 15-40.	11.0	132
86	Second-order Raman spectroscopic study of lithium hydride and lithium deuteride at high pressure. Physical Review B, 1997, 55, 14818-14829.	3.2	18
87	The NaCl pressure standard. Journal of Applied Physics, 1999, 86, 5801-5808.	2.5	191
89	Volume and Temperature Dependence of the Second Gr�neisen Parameter of NaCl. Physica Status Solidi (B): Basic Research, 2000, 219, 241-244.	1.5	17
90	The Gruneisen ratio for the last 30 years. Geophysical Journal International, 2000, 143, 279-294.	2.4	69
91	Grüneisen parameter of lithium, sodium and potassium at T=298 K. Journal of Physics and Chemistry of Solids, 2001, 62, 1359-1361.	4.0	7

#	Article	IF	CITATIONS
92	Phase diagram of iron, revised-core temperatures. Geophysical Research Letters, 2002, 29, 54-1.	4.0	72
93	Single-crystal elasticity of ringwoodite to high pressures and high temperatures: implications for 520 km seismic discontinuity. Physics of the Earth and Planetary Interiors, 2003, 136, 41-66.	1.9	116
94	Semi-empirical Gibbs free energy formulations for minerals and fluids for use in thermodynamic databases of petrological interest. Physics and Chemistry of Minerals, 2004, 31, 429.	0.8	59
95	Temperature dependence of the first pressure derivative of the isothermal bulk modulus for solid materials at zero pressure: Application to MgO. Journal of Geophysical Research, 2005, 110, .	3.3	6
96	Pressure and volume dependence of Grüneisen parameter of solids. Journal of Physics and Chemistry of Solids, 2008, 69, 2341-2343.	4.0	5
97	Quantum Monte Carlo computations of phase stability, equations of state, and elasticity of high-pressure silica. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9519-9524.	7.1	43
98	Thermal diffusivity of oxide perovskite compounds at elevated temperature. Journal of Applied Physics, 2010, 107, .	2.5	39
99	Thermodynamics of mantle minerals - II. Phase equilibria. Geophysical Journal International, 2011, 184, 1180-1213.	2.4	475
100	Effects of hydration, annealing, and melting on heat transport properties of fused quartz and fused silica from laser-flash analysis. Journal of Non-Crystalline Solids, 2012, 358, 1072-1082.	3.1	29
101	Phase Transitions in a 500 Kbar - 3000 K Gas Apparatus. Geophysical Monograph Series, 0, , 55-60.	0.1	19
102	Coordinated Hard Sphere Mixture (CHaSM): A simplified model for oxide and silicate melts at mantle pressures and temperatures. Geochimica Et Cosmochimica Acta, 2015, 163, 40-58.	3.9	10
103	Thermo-elastic behavior of grossular garnet at high pressures and temperatures. American Mineralogist, 2017, 102, 851-859.	1.9	38
104	40Âyears of mineral elasticity: a critical review and a new parameterisation of equations of state for mantle olivines and diamond inclusions. Physics and Chemistry of Minerals, 2018, 45, 95-113.	0.8	49
105	The investigation of structural, electronic, elastic and thermodynamic properties of Gd1â^Y AuPb alloys: A first principle study. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 221-230.	2.1	11
106	Thermoelastic Parameters of Solids. , 2001, , 259-311.		2
107	Thermodynamics of deep geophysical media. Russian Journal of Earth Sciences, 1999, 1, 11-49.	0.7	4

D