

CITATION REPORT

List of articles citing

Elasticity and constitution of the Earth's interior

DOI: 10.1029/jz057i002p00227

Journal of Geophysical Research, 1952, 57, 227-286.

Source: <https://exaly.com/paper-pdf/6308282/citation-report.pdf>

Version: 2024-04-09

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
2128	Imaging exoplanets. 761-764		
2127	Composition of the Earth's Mantle. 1937 , 4, 295-311		
2126	List of recent publications. <i>Journal of Geophysical Research</i> , 1952 , 57, 435-438		
2125	A method of estimating the melting-point gradient in the Earth's mantle. 1952 , 33, 893		61
2124	The Thermal Contraction Theory of Mountain Building. 1953 , 6, 458-466		5
2123	Temperature of the Interior of the Earth. 1953 , 171, 835-835		4
2122	Variation of the Incompressibility of an Elastic Material subjected to Large Hydrostatic Pressure. 1953 , 172, 117-118		5
2121	The Earth's Inner Core. 1953 , 172, 297-298		128
2120	The Melting of Iron at High Pressures. 1953 , 172, 746-747		51
2119	TEMPERATURE-PRESSURE HYPOTHESIS AND THE EARTH'S INTERIOR. 1953 , 31, 370-376		13
2118	Potassium in ultramafic rocks. 1953 , 4, 241-250		16
2117	Elasticity of olivine and constitution of the Earth's mantle. <i>Journal of Geophysical Research</i> , 1953 , 58, 337-346		14
2116	Polymorphism And orogeny. 1953 , 34, 921		4
2115	On the homogeneity, or otherwise, of the Earth's upper mantle. 1954 , 35, 838		7
2114	Compression to 10,000 Atoms of Solid Hydrogen and Deuterium at 4.2°K. 1954 , 94, 1069-1070		17
2113	Composition of the continental plates. 1954 , 4, 360-369		
2112	Composition of the Earth's Outer Core. 1954 , 174, 505-505		5

2111	The densities of compounds at high pressures and the state of the Earth's interior. <i>Journal of Geophysical Research</i> , 1954 , 59, 471-484	31
2110	The Earth's core. 1954 , 35, 49	73
2109	Petrological evidence on temperature distribution in the mantle of the Earth. 1954 , 35, 85	58
2108	Thermal expansion of solids and the temperature at the boundary of the Earth's core. 1955 , 36, 866	13
2107	The electrical conductivity of the Earth's mantle. 1955 , 36, 191	64
2106	Compressibilities of Some Solidified Gases at Low Temperature. 1955 , 97, 578-582	89
2105	Compression of the Alkali Metals to 10 000 Atmospheres at Low Temperature. 1955 , 99, 423-430	77
2104	Grüneisen's Constant for Some Metals. 1955 , 23, 1925-1927	29
2103	Temperatures within the earth. 1956 , 1, 17-43	22
2102	Seismology and the broad structure of the earth's interior. 1956 , 1, 68-93	15
2101	The hydrodynamics of the earth's core. 1956 , 1, 94-137	19
2100	Dependence of the Pure Quadrupole Resonance Frequency on Pressure and Temperature. 1956 , 104, 1364-1377	339
2099	The Earth's Interior. 1956 , 364-406	9
2098	Heat Flow through the Deep Sea Floor. 1956 , 3, 153-181	99
2097	Discussion of the thermal expansion of solids and the temperature at the boundary of the Earth's Core. 1956 , 37, 332	
2096	The Interior of the Earth. 1956 , 3, 183-239	11
2095	Compression of solidified gases to 20,000 kg/cm ² at low temperature. 1956 , 1, 146-158	208
2094	The Lindemann and Grüneisen Laws. 1956 , 102, 308-316	320

2093	Grüneisen's Law and the Fusion Curve at High Pressure. 1956 , 102, 317-325	37
2092	Temperatures in the Earth's Interior. 1956 , 178, 1249-1250	6
2091	The Olivine-Spinel Transition in the Earth's Mantle. 1956 , 178, 1303-1304	32
2090	Polymorphism in the Earth's mantle. 1957 , 38, 569	6
2089	Temperature-Dependent Equations of State of Solids. 1957 , 28, 1253-1261	91
2088	Temperatures in the earth's interior. 1957 , 10, 84-95	35
2087	Earth Models with Continuous Density Distribution. 1957 , 7, 360-368	10
2086	Earth Models with Chemically Homogeneous Cores. 1957 , 7, 372-378	5
2085	On the Constitution of Mars (Second Paper). 1957 , 7, 271-278	10
2084	Über die Bedeutung der Rheologie für geophysikalisch-geologische Theorien. 1957 , 46, 69-86	4
2083	A new dynamic conception of the internal constitution of the earth. 1957 , 46, 101-121	55
2082	Finite Strain Theory and the Earth's Interior. 1958 , 1, 1-8	6
2081	The Magnetic Field and the Central Core of the Earth. 1958 , 1, 216-223	6
2080	The constitution of the mantleII. 1958 , 15, 18-29	102
2079	The constitution of the mantleI 1958 , 13, 303-321	74
2078	The constitution of the mantleIII Consequences of the olivine-spinel transition. 1958 , 15, 195-212	63
2077	Compression and Densities of Four Solidified Hydrocarbons and Carbon Tetrafluoride at 77°K. 1958 , 28, 425-427	26
2076	The nature of the Mohorovicic discontinuity. 1958 , 39, 947	86

2075	Compressibility and temperature of the Earth's interior. 1958 , 39, 943	3
2074	On the chemical evolution and densities of the planets. 1959 , 15, 257-283	177
2073	Velocity of sound in two-component systems. <i>Journal of Geophysical Research</i> , 1959 , 64, 359-361	3
2072	The experimental fusion curve of iron to 96,000 atmospheres. <i>Journal of Geophysical Research</i> , 1959 , 64, 653-659	55
2071	1. Fundamental Problems and Fundamental Data. 1959 , 1, 1-12	
2070	4. The Mantle of the Earth. 1959 , 1, 75-99	
2069	5. The Core. 1959 , 1, 101-120	
2068	7. Density, Pressure, Gravity, and Flattening in the Earth. 1959 , 149-164	
2067	Physics at High Pressure. 1960 , 11, 41-147	14
2066	On the origin and constitution of the upper part of the earth's mantle. 1960 , 50, 251-258	10
2065	An Equation of State for the Core of the Earth. 1960 , 3, 68-77	50
2064	The Critical Phenomena between Solids and Fluids. 1960 , 188, 569-570	1
2063	Elastic behaviour of matter under very high pressures. 1960 , 52, 1-19	12
2062	Some aspects of the thermal evolution of the earth. 1960 , 20, 241-259	80
2061	Elasticity of some high-density crystals. <i>Journal of Geophysical Research</i> , 1960 , 65, 757-766	300
2060	Some geochemical aspects of the Mohorovicic discontinuity. <i>Journal of Geophysical Research</i> , 1960 , 65, 2443-2459	20
2059	Compression and Phase Transitions of Solid NH ₃ , SiF ₄ , H ₂ S, and CF ₄ . 1960 , 33, 128-133	47
2058	Silicon in the metal phase of enstatite chondrites and some geochemical implications. 1961 , 25, 1-13	67

2057	Probing the Earth with nuclear explosions. <i>Journal of Geophysical Research</i> , 1961 , 66, 237-258	39
2056	A study of the free oscillations of the Earth. <i>Journal of Geophysical Research</i> , 1961 , 66, 1865	126
2055	The Earth's Free Oscillations: Large earthquakes cause low-frequency vibrations which give new information about the earth's interior. 1961 , 134, 1663-8	1
2054	The velocity of compressional waves in rocks to 10 kilobars: 2.. <i>Journal of Geophysical Research</i> , 1961 , 66, 2199-2224	1255
2053	An experimental equation of state for sodium. 1961 , 18, 329-344	103
2052	Composition of the Earth's Mantle. 1961 , 4, 295-311	296
2051	Compression and Phase Transitions of Solid HCl, HBr, SiH ₄ , and SF ₆ . 1962 , 36, 400-405	36
2050	Temperature Correction of Birch's Equation of State. 1962 , 33, 3595-3596	43
2049	The Problem of the Mantle-Crust Mix: Lateral Inhomogeneity in the Uppermost Part of the Earth's Mantle. 1962 , 9, 295-360	44
2048	Stishovite, SiO ₂ , a very high pressure new mineral from Meteor Crater, Arizona. <i>Journal of Geophysical Research</i> , 1962 , 67, 419-421	256
2047	A model for the upper mantle. <i>Journal of Geophysical Research</i> , 1962 , 67, 857-867	234
2046	Nonhydrostatic stresses in a gravitating planet. <i>Journal of Geophysical Research</i> , 1962 , 67, 1579-1585	6
2045	High-pressure transition of MgGeO ₃ from pyroxene to corundum structure. <i>Journal of Geophysical Research</i> , 1962 , 67, 1690-1691	39
2044	Olivine-spinel equilibria at high pressure in the system Ni ₂ GeO ₄ -Mg ₂ SiO ₄ . <i>Journal of Geophysical Research</i> , 1962 , 67, 1975-1985	36
2043	On the internal constitution of the inner planets. <i>Journal of Geophysical Research</i> , 1962 , 67, 2945-2974	87
2042	Mineralogical constitution of the deep mantle. <i>Journal of Geophysical Research</i> , 1962 , 67, 4005-4010	166
2041	Stability of the Earth's axis of rotation and phase changes. <i>Journal of Geophysical Research</i> , 1962 , 67, 4479-4484	3
2040	Towards a Theory of Continental Drift. 1962 , 193, 311-314	105

2039	On the possibility of shear waves in the Earth's outer core. 1962 , 53, 13-24	2
2038	Gravitational heating of the Moon. 1962 , 1, 412-421	9
2037	Convection in planetary interiors. 1962 , 1, 391-400	12
2036	The internal constitution of the Moon. 1962 , 9, 625-638	15
2035	Stress history of the moon and of terrestrial planets. 1963 , 2, 376-395	9
2034	Neuere Ergebnisse aus der Geophysik I Physik des tiefen Erdinnern. 1963 , 11, 587-631	2
2033	Heat flow through the eastern Pacific ocean floor. <i>Journal of Geophysical Research</i> , 1963 , 68, 4219-4250	233
2032	Elastic models of the mantle corresponding to variations in the external gravity field. <i>Journal of Geophysical Research</i> , 1963 , 68, 4967-4978	65
2031	The theory of finite strain and compressibility of solids. <i>Journal of Geophysical Research</i> , 1963 , 68, 2929-2932	65
2030	The nature of the Mohorovicic discontinuity, A compromise. <i>Journal of Geophysical Research</i> , 1963 , 68, 4611-4619	21
2029	Effect of pressure on the melting of diopside, $\text{CaMgSi}_2\text{O}_6$, and albite, $\text{NaAlSi}_3\text{O}_8$, in the range up to 50 kilobars. <i>Journal of Geophysical Research</i> , 1963 , 68, 311-323	169
2028	The deep structure of continents. 1963 , 1, 587	146
2027	Equation of State of 6061-T6 Aluminum at Low Pressures. 1963 , 34, 2046-2052	46
2026	INTERNAL STRUCTURE OF THE MOON. 1963 , 3-33	1
2025	Optical Determination of the Compressibility of Solid Argon. 1963 , 38, 825-827	12
2024	Compression of Solid He_3 and He_4 to 20 000 Bars. 1963 , 129, 1950-1951	28
2023	XII. Petrology and Petrogenesis of some Garnetiferous Peridotites*. 1963 , 65, 251-314	157
2022	Internal Structure of the Moon. 1963 , 3-33	

2021	Quantum Cell Model Equation of State. 1964 , 41, 2168-2174	7
2020	Mean and Effective Atomic Weights of Rock Specimens. 1964 , 202, 584-585	1
2019	The compression of some rare earth elements. 1964 , 25, 423-429	40
2018	Density distribution and constitution of the mantle. 1964 , 2, 35	549
2017	On the composition of the Earth's interior. <i>Journal of Geophysical Research</i> , 1964 , 69, 2947-2965	117
2016	Dynamic and static compressibility of glasses and the increase of density with depth in the earth's interior. 1964 , 27, 129-142	1
2015	The Solid State of Rare Gases. 1964 , 36, 748-791	501
2014	The Deep Structure of Continents. 1964 , 143, 921-9	22
2013	Geological Aspects of High-Pressure Research: High-pressure experimentation is providing a new look at problems in geophysics and petrology. 1964 , 145, 13-20	47
2012	Geology of the Crust and Mantle, Western United States: Geophysical data reveal a thin crust and anomalous upper mantle characteristic of active regions. 1964 , 146, 1539-49	16
2011	Rutile-like silica and phase transformations in the earth's interior. 1964 , 1, 223-226	12
2010	High-pressure reaction of clinoenstatite to forsterite plus stishovite. <i>Journal of Geophysical Research</i> , 1964 , 69, 325-330	26
2009	Structure of the Earth's crust from spectral behavior of long-period body waves. <i>Journal of Geophysical Research</i> , 1964 , 69, 2997-3017	195
2008	Thermoelastic stresses and the energy of earthquakes. <i>Journal of Geophysical Research</i> , 1964 , 69, 3443-3447	15
2007	Density and composition of mantle and core. <i>Journal of Geophysical Research</i> , 1964 , 69, 4377-4388	467
2006	Shock compression of crustal rocks: Data for quartz, calcite, and plagioclase rocks. <i>Journal of Geophysical Research</i> , 1964 , 69, 4839-4874	146
2005	The convection current hypothesis. 1964 , 2, 89	114
2004	Effects of thermal expansion on the moments of inertia of the moon. 1965 , 4, 166-172	2

2003	Possible effects of convection on lunar moments of inertia. 1965 , 4, 173-176	5
2002	Compressibility of solids and Tait's law: I: P-V relationships of the alkali metals. 1965 , 26, 1157-1169	6
2001	A thermal tool for direct investigation of the interior of the earth. 1965 , 61, 113-122	1
2000	Ber die Bewegungsdifferentialgleichung einer linearen Störung in einem Körper unter beliebiger Anfangsverformung. 1965 , 45, 525-535	1
1999	Thermal History of the Earth.. 1965 , 9, 95-112	32
1998	Free Vibrations of the Earth and the Properties of its Deep Interior Regions Part 1: Density. 1965 , 9, 439-502	46
1997	Variation of velocity and attenuation of longitudinal waves during the solid-liquid and liquid-solid transition in Wood's alloy. 1965 , 9, 250-258	5
1996	LATTICE DYNAMICS IN GEOPHYSICS*, 1965 , 27, 298-308	3
1995	Recent evidence concerning the structure and composition of the Earth's mantle. 1965 , 6, 1-131	50
1994	Approximate Compressibility of Elements and Compounds. 1965 , 138, A1445-A1447	63
1993	A model of the internal constitution and temperature of the planet Mercury. <i>Journal of Geophysical Research</i> , 1965 , 70, 985-993	13
1992	Conditions for a density minimum in the upper mantle. <i>Journal of Geophysical Research</i> , 1965 , 70, 1457-1461	18
1991	The olivine-spinel transition in Fe ₂ SiO ₄ and Ni ₂ SiO ₄ . <i>Journal of Geophysical Research</i> , 1965 , 70, 1969-1977	108
1990	The interiors of the terrestrial planets. <i>Journal of Geophysical Research</i> , 1965 , 70, 2873-2882	34
1989	The bulk modulus-volume relationship for oxide compounds and related geophysical problems. <i>Journal of Geophysical Research</i> , 1965 , 70, 3951-3963	261
1988	An approximate method of estimating shear velocity from specific heat. <i>Journal of Geophysical Research</i> , 1965 , 70, 4726-4728	7
1987	Some geophysical implications from gravity and heat flow data. <i>Journal of Geophysical Research</i> , 1965 , 70, 5629-5634	12
1986	Energetics of core formation. <i>Journal of Geophysical Research</i> , 1965 , 70, 6217-6221	77

1985	Processes in the upper mantle. 1965 , 2, 151-184	5
1984	Influence of upper mantle processes on the structure of the earth's crust. 1965 , 2, 185-209	7
1983	Geothermal and petrogenetic implications of the analysis of the distributional relationship between thorium and uranium. 1965 , 2, 69-81	11
1982	An experimental investigation of the Gabbro-Eclogite transformation and some geophysical implications. 1966 , 3, 383-427	383
1981	Chemical evolution of the terrestrial planets. 1966 , 30, 41-104	368
1980	The seismicity and deep structure of Island arcs. <i>Journal of Geophysical Research</i> , 1966 , 71, 2981-3006	251
1979	Equations of state of matter from shock wave experiments. <i>Journal of Geophysical Research</i> , 1966 , 71, 3985-3994	70
1978	Is the mantle soluble in the core?. <i>Journal of Geophysical Research</i> , 1966 , 71, 4973-4979	43
1977	Estimation of bulk modulus and sound velocities of oxides at very high temperatures. <i>Journal of Geophysical Research</i> , 1966 , 71, 5315-5320	88
1976	Crustal structure of the mid-ocean ridges: 5. Heat flow through the Atlantic Ocean floor and convection currents. <i>Journal of Geophysical Research</i> , 1966 , 71, 5321-5355	261
1975	Orogenic fold-belts and a hypothesis of earth evolution. 1966 , 7, 1-114	19
1974	The use of ultrasonic measurements under modest pressure to estimate compression at high pressure. 1966 , 27, 547-565	420
1973	The law for the volume dependence of superexchange. 1966 , 27, 881-885	237
1972	The Internal Constitution of the Earth. 1966 , 11, 85-132	35
1971	ENDOSPHERES AND INTERZONAL COUPLING. 1966 , 140, 133-148	5
1970	Lindemann and Gr̃eisen Laws and a Melting Law at High Pressure. 1966 , 16, 1089-1091	46
1969	Effects of Hydrostatic Pressure on the Magnetic Ordering Temperatures and the Magnetization of Some Ionic Compounds. 1966 , 37, 1401-1402	26
1968	Effect of Pressure on the Curie Temperature and Volume of GdN. 1966 , 44, 3528-3530	24

1967	Magnetic and Structural Properties of Europium Metal and Europium Monoxide at High Pressure. 1966 , 143, 385-389	121
1966	Stability of the Electronic Configuration and Compressibility of Electron Orbitals in Metals under Shock-Wave Compression. 1967 , 164, 929-943	18
1965	Effects of High Pressure, Uniaxial Stress, and Temperature on the Electrical Resistivity of nGaAs. 1967 , 155, 786-796	53
1964	Pressure Dependence of Itinerant Antiferromagnetism in Chromium. 1967 , 19, 846-849	130
1963	Linear Compression of α -Quartz to 150 kbar. 1967 , 38, 347-352	52
1962	Anomalous Behavior of the Shear-Sound Velocity under Pressure for Polycrystalline ZnO. 1967 , 38, 2985-2988	83
1961	Phase transitions in rocks under shock compression. 1967 , 3, 107-113	17
1960	Electrical resistivity of the earth's core. 1967 , 3, 204-206	12
1959	The garnet-ilmenite transformation in Ge-Si pyrope solid solutions. 1967 , 2, 331-334	18
1958	Earth models based on compressibility theory. 1967 , 1, 1-13	51
1957	Equation for thermal expansivity in planetary interiors. <i>Journal of Geophysical Research</i> , 1967 , 72, 3661-3668	178
1956	Calculated mineral reactions in the Earth's mantle. <i>Journal of Geophysical Research</i> , 1967 , 72, 4181-4188	145
1955	Elastic constants of garnet under pressure and temperature. <i>Journal of Geophysical Research</i> , 1967 , 72, 4227-4234	167
1954	On the distributions of density and temperature in the low-velocity zone. <i>Journal of Geophysical Research</i> , 1967 , 72, 5649-5653	47
1953	Phase changes in the upper mantle. 1967 , 157, 1165-73	292
1952	On the Upper Mantle. 1967 , 12, 79-211	4
1951	The Earth as a Maxwell body. 1967 , 6, 92-99	9
1950	The genesis of basaltic magmas. 1967 , 15, 103-190	1035

1949	Density-Velocity Relations for Rocks. 1967 , 13, 1-8	68
1948	A Seismic Equation of State. 1967 , 13, 9-30	156
1947	Inhomogeneities in the Earth's Mantle. 1967 , 13, 31-59	64
1946	Note on the Coefficient γ . 1967 , 13, 459-459	10
1945	High-Temperature Elasticity and Expansivity of Forsterite and Steatite. 1967 , 50, 239-242	89
1944	Earth Oscillations and the Earth's Interior. 1967 , 213, 574-576	33
1943	The compressibility of krypton, argon, and other noble gas solids. 1967 , 28, 2269-2281	76
1942	Some elastic constant data on minerals relevant to geophysics. 1968 , 6, 491	447
1941	Convection in planetary interiors. 1968 , 8, 23-39	7
1940	The compression of solid neon, argon and krypton to 20 kbar*. 1968 , 29, 641-651	23
1939	Empirical Equations of State for the Earth's Lower Mantle and Core. 1968 , 16, 235-238	48
1938	Compression in the Earth. 1968 , 16, 31-36	48
1937	Equation of State of Periclase and Birch's Relationship between Velocity and Density. 1968 , 218, 74-76	55
1936	Close Continuity of Compressibility at the Earth's Mantle-Core Boundary. 1968 , 218, 262-262	5
1935	Shock-wave Data for Several Minerals and their Implication to Mineral Phases in the Lower Mantle. 1968 , 218, 560-561	8
1934	Thermal expansion at high pressures. <i>Journal of Geophysical Research</i> , 1968 , 73, 817-819	102
1933	Temperature and discontinuities in the transition layer within the Earth's mantle: Geophysical application of the olivine-spinel transition in the $\text{Mg}_2\text{SiO}_4\text{-Fe}_2\text{SiO}_4$ System. <i>Journal of Geophysical Research</i> , 1968 , 73, 3281-3294	80
1932	Density distribution of a steady-state homogeneous moon. <i>Journal of Geophysical Research</i> , 1968 , 73, 3974-3976	1

1931	Isothermal compression of the alloys of iron up to 300 kilobars at room temperature: Iron-nickel alloys. <i>Journal of Geophysical Research</i> , 1968 , 73, 4717-4725	102
1930	Some remarks on the volume dependence of the Grüneisen parameter. <i>Journal of Geophysical Research</i> , 1968 , 73, 5187-5194	80
1929	Elastic properties of CaO under pressure and temperature. <i>Journal of Geophysical Research</i> , 1968 , 73, 5385-5390	64
1928	Properties of the core-mantle boundary and observations of PcP. <i>Journal of Geophysical Research</i> , 1968 , 73, 5901-5923	30
1927	Constitution of the lower mantle as evidenced from shock wave data for some rocks. <i>Journal of Geophysical Research</i> , 1968 , 73, 6459-6476	48
1926	Shock-wave equations of state for rocks and minerals. <i>Journal of Geophysical Research</i> , 1968 , 73, 6477-6502	80
1925	Chemical changes associated with upper mantle structure. 1968 , 6, 331-342	21
1924	On the dynamical theory of polar wandering. 1968 , 5, 125-149	6
1923	The effect of temperature and partial melting on velocity and attenuation in a Simple Binary System. <i>Journal of Geophysical Research</i> , 1968 , 73, 6051-6060	163
1922	On the possibility of large changes in the Earth's volume. 1968 , 1, 141-147	34
1921	On the use of ultrasonic and shock-wave data to estimate compressions at extremely high pressures. 1968 , 1, 169-176	47
1920	Dependence of compressibility and compression on chemical composition in finite-strain theory. 1968 , 1, 297-301	7
1919	High pressure transformations of spinels (I). 1968 , 5, 245-250	96
1918	Phase transformations in the mantle. 1968 , 5, 401-412	126
1917	Pressure and Temperature Dependences of the Isotropic Elastic Moduli of Polycrystalline Alumina. 1968 , 39, 5316-5326	113
1916	Mercury has two permanent thermal bulges. 1968 , 159, 306-7	8
1915	Sound Velocities in Rocks and Minerals: Experimental Methods, Extrapolations to Very High Pressures, and Results* *Lamont Geological Observatory Contribution No. 1062.. 1968 , 329-472	6
1914	The suboceanic mantle. 1969 , 165, 174-6	59

1913	Compressibility-Pressure Gradient and the Constitution of the Earth's Outer Core. 1969 , 18, 73-79	52
1912	Upper Bound to Change in Incompressibility at the Earth's Mantle-Core Boundary. 1969 , 17, 179-183	49
1911	Stability of Planetary Interiors. 1969 , 18, 441-460	48
1910	Petrology at High Pressure and Temperature. 1969 , 224, 314-317	1
1909	Equations of state at high pressure and the earth's interior. 1969 , 1, 441-513	6
1908	Equation of state for cesium metal to 23 kbar. 1969 , 30, 1587-1601	50
1907	Coesite and Stishovite. 1969 , 56, 100-109	20
1906	Superconducting manometers for high pressure measurement at low temperature. 1969 , 9, 53-56	153
1905	Remarks on thermal expansion. <i>Journal of Geophysical Research</i> , 1969 , 74, 731-732	46
1904	On the high-temperature equation of state of solids. <i>Journal of Geophysical Research</i> , 1969 , 74, 981-991	60
1903	Effect of pressure and temperature on the molar volumes of Wüstite and of three (Fe, Mg) ₂ SiO ₄ spinel solid solutions. <i>Journal of Geophysical Research</i> , 1969 , 74, 1061-1069	141
1902	Comments on the interrelationships between Grüneisen's parameter and shock and isothermal equations of state. <i>Journal of Geophysical Research</i> , 1969 , 74, 1439-1450	121
1901	Convection in a mantle with variable physical properties. <i>Journal of Geophysical Research</i> , 1969 , 74, 1458-1474	103
1900	Calculations on the composition of the terrestrial planets. <i>Journal of Geophysical Research</i> , 1969 , 74, 2494-2511	56
1899	Elastic constants of single-crystal rutile under pressures to 7.5 kilobars. <i>Journal of Geophysical Research</i> , 1969 , 74, 4317-4328	188
1898	Project Early Rise: Seismic probing of the upper mantle. <i>Journal of Geophysical Research</i> , 1969 , 74, 4409-4441	60
1897	Elastic constants of single-crystal forsterite as a function of temperature and pressure. <i>Journal of Geophysical Research</i> , 1969 , 74, 5949-5960	227
1896	Review of Some Experimental and Analytical Equations of State. 1969 , 41, 316-349	208

1895	Universal equations of state for oxides and silicates. 1969 , 2, 69-76	64
1894	Critical thermal gradients in the mantle. 1969 , 7, 77-81	55
1893	The effect of solid solutions upon the bulk modulus and its pressure derivative: implications for equations of state. 1969 , 7, 137-140	8
1892	Equations of state and crystal structures of high-pressure phases of shocked silicates and oxides. 1969 , 7, 667	246
1891	On the fourth-order anharmonic equation of state of solids. 1970 , 31, 2003-2016	136
1890	Regionalized Earth models. <i>Journal of Geophysical Research</i> , 1970 , 75, 6575-6581	89
1889	Temperature dependence of the frequency of nuclear quadrupole resonance in the 6000°K region. 1970 , 13, 711-715	
1888	Phase change in the upper mantle above 350 km. 1970 , 227, 938-40	
1887	Lateral Variations of Density in the Mantle. 1970 , 20, 431-455	17
1886	Garnet peridotite xenoliths in South African kimberlite pipes and their petrogenesis. 1970 , 25, 163-184	52
1885	Analytical Approach to the Shock Compressibility of 18 Cubic-Lattice Metals. 1970 , 53, 571-575	4
1884	Grüneisen Parameter for Born-von Kármán Lattices. 1970 , 1, 3990-3992	6
1883	The origin of the Earth's core. 1970 , 2, 303-310	2
1882	Evidence from seismology and related sources on the Earth's present internal structure. 1970 , 2, 342-349	10
1881	The chemical composition of the Earth's core: Possibility of sulphur in the core. 1970 , 2, 276-282	121
1880	Earth models consistent with geophysical data. 1970 , 3, 3-22	154
1879	The composition of the lower mantle. 1970 , 3, 23-35	96
1878	Comparison of sources of evidence on the variation of incompressibility in the earth's deeper interior. 1970 , 3, 36-40	5

1877	Isothermal compression of stishovite and coesite up to 85 kilobars at room temperature by X-ray diffraction. 1970 , 3, 54-60	61
1876	Equations for the elastic constants and their pressure derivatives for three cubic lattices and some geophysical applications. 1970 , 3, 61-85	112
1875	The system $\text{Mg}_2\text{SiO}_4\text{-Fe}_2\text{SiO}_4$ at high pressures and temperatures. 1970 , 3, 89-108	280
1874	Phase transformations and the constitution of the mantle. 1970 , 3, 109-155	343
1873	An empirical relationship between thermal conductivity and debye temperature for silicates. <i>Journal of Geophysical Research</i> , 1970 , 75, 978-982	26
1872	Extrapolation formula for finding the volume of solids at high pressures. <i>Journal of Geophysical Research</i> , 1970 , 75, 1557-1569	46
1871	Elastic constants of the central force model for three cubic structures: Pressure derivatives and equations of state. <i>Journal of Geophysical Research</i> , 1970 , 75, 2719-2740	90
1870	Density and constitution of the mantle. <i>Journal of Geophysical Research</i> , 1970 , 75, 3264-3284	121
1869	Application of isotropic finite strain theory to ultrasonic and seismological data. <i>Journal of Geophysical Research</i> , 1970 , 75, 4478-4480	91
1868	On the calculation of the seismic parameter γ at high pressure and high temperatures. <i>Journal of Geophysical Research</i> , 1970 , 75, 5113-5120	51
1867	Metal-Insulator Transition in $(\text{V}_{1-x}\text{Cr}_x)\text{TiO}_3$. 1970 , 2, 3734-3750	414
1866	Magnetoelastic interactions in hematite: Implications for geophysics. <i>Journal of Geophysical Research</i> , 1971 , 76, 2735-2756	67
1865	The earth's core: Speculations on its chemical equilibrium with the mantle. 1971 , 35, 203-221	40
1864	Equation of state of forsterite. <i>Journal of Geophysical Research</i> , 1971 , 76, 518-528	88
1863	Elastic constants of the central force model for cubic structures: Polycrystalline aggregates and instabilities. <i>Journal of Geophysical Research</i> , 1971 , 76, 1349-1369	122
1862	The adiabatic gradient and the melting point gradient in the core of the Earth. <i>Journal of Geophysical Research</i> , 1971 , 76, 1870-1878	194
1861	Origin and development of marginal basins in the western Pacific. <i>Journal of Geophysical Research</i> , 1971 , 76, 2542-2561	764
1860	The mantle transition zone as possible source of global gravity anomalies. 1971 , 11, 28-34	32

1859	Internal Constitution of Mars. 1971 , 234, 89-92	31
1858	Time of Formation of the Earth's Core. 1971 , 234, 463-465	104
1857	Solidity of the Inner Core of the Earth inferred from Normal Mode Observations. 1971 , 234, 465-466	93
1856	Elasticity and Equations of State of Olivines in the $\text{Mg}_2\text{SiO}_4\text{-Fe}_2\text{SiO}_4$ System. 1971 , 25, 511-538	120
1855	On inferring elastic properties of the deep lunar interior. 1971 , 19, 929-947	7
1854	The equation of state of solid helium: A pressure scale to 20 kbar for high pressure measurements at low temperature. 1971 , 11, 26-38	74
1853	Composition and evolution of the mantle and core. 1971 , 171, 1103-12	170
1852	Properties of Crystalline Argon, Krypton, and Xenon Based upon the Born and Huang Method of Homogeneous Deformations. II. Equation of State and Melting Lines. 1971 , 3, 2724-2729	6
1851	The internal structure of planetary bodies. 1972 , 13, 585-600	2
1850	Equation of State of Polystyrene and Polymethylmethacrylate from Ultrasonic Measurements at Moderate Pressures. 1972 , 43, 976-985	18
1849	Pressure and Temperature Gradients in Ascending Fluids and Magmas. 1972 , 238, 98-100	1
1848	The origin and chemical composition of the earth's core. 1972 , 6, 123-130	48
1847	Compressibility and planetary interiors. 1972 , 6, 131-135	2
1846	Disproportionation of Fe_2SiO_4 to $2\text{FeO}+\text{SiO}_2$ at pressures up to 250kbar and temperatures up to 3000 °C. 1972 , 6, 154-160	85
1845	Shear wave velocities in the Earth's mantle. 1972 , 5, 30-44	26
1844	The mineralogic distribution of iron in the upper mantle. 1972 , 5, 267-281	14
1843	Elastic properties of minerals determined from ultrasonic or compression data. 1972 , 5, 312-317	49
1842	Equations of state and their geophysical applications. 1972 , 5, 332-343	

1841	Phase transformations and mantle dynamics. 1972 , 14, 233-241	152
1840	A shock-induced phase change in iron-silicate garnet. 1972 , 14, 87-90	61
1839	Equations of state of olivine-transformed spinels. 1972 , 14, 348-356	16
1838	Production of silica-saturated tholeiitic magmas in island arcs. 1972 , 17, 243-246	70
1837	Elastic properties of alpha quartz and the alkali halides based on an interatomic force model. <i>Journal of Geophysical Research</i> , 1972 , 77, 826-847	62
1836	A Simple Earth Model. <i>Journal of Geophysical Research</i> , 1972 , 77, 4318-4329	76
1835	Effect of pressure on the crystal structure and the lattice parameters of BaO. <i>Journal of Geophysical Research</i> , 1972 , 77, 4934-4937	146
1834	Origin of the earth. 1972 , 13, 7-29	13
1833	The system MgO-FeO-SiO ₂ at high pressures and temperatures: phase equilibria and elastic properties. 1972 , 13, 161-187	198
1832	The state of mantle minerals. 1972 , 13, 189-219	53
1831	Melting temperatures in the earth's mantle. 1972 , 13, 221-232	31
1830	The role of experimental physical acoustics in geophysics. 1972 , 13, 521-540	
1829	Equations of state for silicates in the metallic form. 1972 , 101, 5-9	43
1828	Observations of Normal Modes from 84 Recordings of the Alaskan Earthquake of 1964 March 28. 1972 , 27, 393-446	111
1827	The Melting Relations of Iron, and Temperatures in the Earth's Core. 1972 , 29, 373-387	98
1826	Equations of state and phase equilibria of stishovite and a coesitelike phase from shock-wave and other data. <i>Journal of Geophysical Research</i> , 1972 , 77, 4920-4933	89
1825	Physical properties of the Earth's core. 1972 , 1, 99-119	67
1824	The Moho is a transition zone. 1973 , 1, 195-216	100

1823	Quasi-harmonic finite strain equations of state of solids. 1973 , 34, 1417-1429	95
1822	Elastic properties of Se and As ₂ Se ₃ glasses under pressure and temperature. 1973 , 34, 2143-2148	45
1821	Invariant finite strain measures in elasticity and lattice dynamics. 1973 , 34, 841-845	64
1820	Hydrostatic pressure derivatives of the single crystal elastic moduli of Gd, Dy and Er. 1973 , 34, 687-703	51
1819	Identification of High-Pressure Phases of Rocks and Minerals from Hugoniot Data. 1973 , 33, 165-183	51
1818	On the Compression of Stishovite. 1973 , 32, 15-34	23
1817	Pressure dependence of single-crystal elastic constants and anharmonic properties of spinel. <i>Journal of Geophysical Research</i> , 1973 , 78, 2418-2433	141
1816	Chemistry of the Earth's lower mantle. <i>Journal of Geophysical Research</i> , 1973 , 78, 3501-3504	49
1815	Changes of the crystal structure and the lattice parameter of SrO at high pressure. <i>Journal of Geophysical Research</i> , 1973 , 78, 8470-8473	88
1814	Dynamical models for sea floor spreading. 1973 , 11, 223	188
1813	On the equations of state of high-pressure solid phases. 1973 , 18, 125-132	12
1812	A scaling law for K_2^0 for silicates with constant mean atomic mass. 1973 , 20, 73-76	48
1811	High-Pressure Polymorph of Thulium: An X-ray Diffraction Study. 1973 , 180, 298-9	16
1810	Equations of state and thermal expansion of alkali halides. 1973 , 3, 451-504	8
1809	Penetrative convection in the planetary mantle. 1973 , 5, 47-88	29
1808	Seismology with large arrays. 1973 , 36, 1233-1283	4
1807	Effect of Water on Olivine Stability in Tholeiites and the Production of Silica-Saturated Magmas in the Island-Arc Environment. 1973 , 81, 285-300	323
1806	Shock Compression of Iron Sulphide and the Possible Sulphur Content of the Earth's Core. 1973 , 243, 82-84	12

1805	Was wissen wir über die tieferen Schichten der Erde?. 1974 , 86, 612-624	2
1804	What Do We Know about the Deeper Layers of the Earth?. 1974 , 13, 580-591	3
1803	Mercury: Internal structure and thermal evolution. 1974 , 23, 192-205	113
1802	Elastic behaviour near polymorphic transitions: Silver iodide. 1974 , 35, 911-916	11
1801	Configuration crossover in 4f substances under pressure. 1974 , 35, 1285-1296	147
1800	Melting of Iron. 1974 , 38, 327-334	12
1799	Limits on the Constitution of the Lower Mantle. 1974 , 38, 479-503	76
1798	Postspinel Phase of Forsterite and Evolution of the Earth's Mantle. 1974 , 247, 356-358	112
1797	Thermodynamic systems for solids and liquids. 1974 , 22, 349-370	8
1796	The generalized compressibility equation of Tait for dense matter. 1974 , 7, 2021-2023	16
1795	Synthesis of a new high-pressure phase of tin dioxide and some geophysical implications. 1974 , 9, 338-343	38
1794	Standard earth model requirements in respect of density and rigidity in the inner core. 1974 , 9, 41-44	3
1793	On thermodynamic description of Mie-Grüneisen materials with Debye specific heats. 1974 , 9, 78-82	
1792	High-pressure decompositions in manganese silicates and their geophysical implications. 1974 , 8, 241-245	19
1791	Birch's diagram: Some new observations. 1974 , 8, 56-62	45
1790	Disproportionation of kyanite to corundum plus stishovite at high pressure and temperature. 1974 , 24, 224-228	42
1789	Effect of pressure on the lattice parameters of stishovite. <i>Journal of Geophysical Research</i> , 1974 , 79, 1160-1164	107
1788	Stability of a chemically layered mantle. <i>Journal of Geophysical Research</i> , 1974 , 79, 1635-1639	94

1787	Pressure shifts of optical absorption bands in iron-bearing garnet, spinel, olivine, pyroxene, and periclase. <i>Journal of Geophysical Research</i> , 1974 , 79, 3273-3282	27
1786	Reinvestigation of the olivine-spinel transformation in Ni ₂ SiO ₄ and the incongruent melting of Ni ₂ SiO ₄ olivine. <i>Journal of Geophysical Research</i> , 1974 , 79, 3321-3324	26
1785	Convection in the earth's mantle: towards a numerical simulation. 1974 , 62, 465	564
1784	High pressure in coordination chemistry. 1974 , 12, 185-220	20
1783	1 General Physical Properties of the Earth. 1975 , 20, 1-53	
1782	Aufbau und Zustand des Erdkerns (Teil II). 1975 , 31, 309-315	
1781	Convection in the Earth's core. 1975 , 28, 467-475	1
1780	The melting relations of iron and temperatures in the earth's core. 1975 , 5, 501-531	17
1779	A new equation of state for solids. 1975 , 299, 67-71	
1778	Lutetium: High pressure polymorph and compression. 1975 , 36, 31-35	31
1777	Experimental equation of state of para-hydrogen at 4 K up to 5 kbar. 1975 , 21, 21-25	8
1776	The Structure of the Crust and Upper Mantle in the Region of Barbados and the Lesser Antilles. 1975 , 43, 201-242	96
1775	Dominant Creep Mechanism and the Descending Lithosphere. 1975 , 43, 873-895	18
1774	Dependence of the direct energy gap of GaAs on hydrostatic pressure. 1975 , 12, 5729-5738	287
1773	The Postspinel Phases in the Mg ₂ SiO ₄ -Fe ₂ SiO ₄ System. 1975 , 187, 66-8	46
1772	Pressure dependence of the thermal Grüneisen parameter, with application to the earth's lower mantle and outer core. 1975 , 11, 157-165	116
1771	Parametrically simple earth models consistent with geophysical data. 1975 , 10, 12-48	464
1770	High-pressure phase transformations and compressions of ilmenite and rutile, I. Experimental results. 1975 , 10, 167-176	71

1769	Homogeneity and constitution of the earth's lower mantle and outer core. 1975 , 10, 336-343	207
1768	Degrees of melting in mantle diapirs and the origin of ultrabasic liquids. 1975 , 27, 113-120	68
1767	The melting of iron up to 200 kbar. <i>Journal of Geophysical Research</i> , 1975 , 80, 3777-3782	98
1766	Isothermal equations of state for lithium fluoride. 1976 , 47, 2862-2866	14
1765	Electronic structure of iron and models of the Earth's core. 1976 , 3, 45-48	24
1764	Elasticity of polycrystalline stishovite. 1976 , 32, 127-140	81
1763	Melting of the silica isotypes SiO ₂ , BeF ₂ and GeO ₂ at elevated pressures. 1976 , 13, 218-231	74
1762	Measurement of release wave speed in shock-compressed polycrystalline alumina and aluminum. <i>Journal of Geophysical Research</i> , 1976 , 81, 1935-1942	7
1761	The Estimation of Elastic Properties from Analogue Compounds. 1976 , 44, 625-647	69
1760	Note on Incompressibility-Pressure Gradients in the Earth's Core. 1976 , 44, 717-718	1
1759	The stability of the earth's core and the geodynamo. 1976 , 261, 483-484	1
1758	The current status of speculations on the composition of the core of the Earth. 1976 , 14, 375	64
1757	Pressure derivatives of the elastic moduli of niobium and tantalum. 1976 , 47, 434-439	76
1756	Isothermal equation of state for sodium chloride by the length-change-measurement technique. 1976 , 47, 4182-4187	94
1755	Isothermal compression and bcc->hcp phase transition of iron-cobalt alloys up to 300 kbar at room temperature. 1977 , 48, 3374-3378	11
1754	Seismic moments of earthquakes beneath island arcs, phase changes, and subduction velocities. <i>Journal of Geophysical Research</i> , 1977 , 82, 256-264	45
1753	Thermal interaction of the core and the mantle and long-term behavior of the geomagnetic field. <i>Journal of Geophysical Research</i> , 1977 , 82, 1703-1709	99
1752	Longitudinal elastic velocities in MgO to 360 KB. <i>Journal of Geophysical Research</i> , 1977 , 82, 2523-2528	48

1751	Elasticity of aluminate, titanate, stannate and germanate compounds with the perovskite structure. 1977 , 14, 165-178	121
1750	A theoretical equation of state for the inner core. 1977 , 14, 333-344	42
1749	Simple model for solids under pressure. 1977 , 38, 1-3	44
1748	High-pressure silicate pyrochlores, $\text{Sc}_2\text{Si}_2\text{O}_7$ and $\text{In}_2\text{Si}_2\text{O}_7$. 1977 , 20, 219-226	39
1747	Hydrogen in the Earth's core. 1977 , 268, 130-131	52
1746	Mineralogy and chemistry of the Earth's mantle above 1000 km. 1977 , 48, 53-62	71
1745	Whole-mantle convection and plate tectonics. 1977 , 49, 459-486	119
1744	Stresses due to phase changes in subduction zones and an empirical equation of state for the mantle. 1977 , 50, 459-472	8
1743	Internal structure and properties of Mars. 1977 , 32, 73-84	64
1742	Isotherms of the rare gas solids. 1977 , 38, 175-177	79
1741	Elastic properties, chemical composition, and crystal structure of minerals. 1977 , 3, 69-100	65
1740	Applications of thermodynamics to fundamental earth physics. 1977 , 3, 175-204	93
1739	Pressure dependence of the elastic constants of nonmetamict zircon. 1978 , 2, 215-224	114
1738	The elastic properties of $(\text{Mg} \times \text{Fe}^{1/2})\text{O}$ solid solutions. 1978 , 3, 11-31	115
1737	Mixed-oxide and perovskite-structure model mantles from 700?1200 km. 1978 , 54, 601-630	63
1736	Experimental determination of thermal expansivity of several alkali halides at high pressures. 1978 , 39, 563-571	140
1735	Pressure and temperature dependence of the nuclear quadrupole resonance of ^{35}Cl in chloracetamide. 1978 , 31, 109-120	
1734	Thermodynamic properties of lithium, sodium, and potassium at high pressure. 1978 , 21, 208-212	

1733	Finite strain isotherm and velocities for single-crystal and polycrystalline NaCl at high pressures and 300°K. <i>Journal of Geophysical Research</i> , 1978 , 83, 1257	2213
1732	Calcic anorthosite from the nuggehalli schist belt, Karnataka state, India. 1978 , 41, 454-458	
1731	Study of the pressure-induced structural phase transition in the Ga(1-x)Inx Sb alloy system 1978 , 39, 113-122	5
1730	Theoretical models for Mars and their seismic properties. 1978 , 33, 514-528	70
1729	High-pressure single-crystal structure determinations for ruby up to 90 kbar using an automatic diffractometer. 1978 , 49, 4411-4416	185
1728	A Fluorite Isotype of SnO2 and a New Modification of TiO2: Implications for the Earth's Lower Mantle. 1978 , 199, 422-5	106
1727	A suggestion on the possible significance of volcanic activity in the tectonic development of the Eastern Mediterranean region. 1978 , 46, 227-237	
1726	Piezo- and elasto-optic properties of liquids under high pressure. I. Refractive index vs pressure and strain. 1978 , 69, 4762-4771	63
1725	On the possible density inversion in the upper mantle of the earth. 1978 , 17, 290-294	1
1724	Equation of state fits to the lower mantle and outer core. 1978 , 17, 147-162	85
1723	A new high-pressure phase of Ca2Al2SiO7 and implications for the earth's interior. 1978 , 40, 401-406	31
1722	A new high-pressure phase of spinel. 1978 , 41, 398-404	55
1721	B1-b2 transition in calcium oxide from shock-wave and diamond-cell experiments. 1979 , 206, 829-30	172
1720	A comparative method for various approaches to the isothermal equation of state. 1979 , 117, 1001-1010	2
1719	The dependence of the melting temperatures of iron upon the choice of the interatomic potential. 1979 , 58, 201-208	5
1718	P and S waves diffracted around the core and the velocity structure at the base of the mantle. 1979 , 57, 381-395	57
1717	Observational constraints on the chemical and thermal structure of the Earth's deep interior. 1979 , 57, 507-534	157
1716	Ultra-high-pressure experimental mantle mineralogy. 1979 , 17, 788	9

1715	A critical evaluation of equations of state by piezo-optic measurements. 1979 , 50, 1328-1333	7
1714	On the 650-km seismic discontinuity. 1979 , 42, 202-208	119
1713	Calculations of high-pressure phase transitions in the system MgO-SiO ₂ and implications for mantle discontinuities. 1979 , 19, 319-330	74
1712	Influence of natural radioactivity on creep rate. 1979 , 19, 348-354	1
1711	Comparison of some equation-of-state theories by using experimental high-compression data. 1979 , 18, 1-12	16
1710	Equations of state of close-packed phases of iron and their implications for the Earth's core. 1979 , 18, 13-19	10
1709	Thermal effects of chemical reactions in the undifferentiated earth. 1979 , 18, 20-26	1
1708	Equations of state of iron sulfide and constraints on the sulfur content of the Earth. <i>Journal of Geophysical Research</i> , 1979 , 84, 985	91
1707	Vertical movement in mare basins: Relation to mare emplacement, basin tectonics, and lunar thermal history. <i>Journal of Geophysical Research</i> , 1979 , 84, 1667	168
1706	Isothermal compression of TiO ₂ (Rutile) under hydrostatic pressure to 106 kbar. <i>Journal of Geophysical Research</i> , 1979 , 84, 4777	48
1705	Properties of iron at high pressures and the state of the core. <i>Journal of Geophysical Research</i> , 1979 , 84, 6059	149
1704	Equilibrium fluid distribution in an ultramafic partial melt under hydrostatic stress conditions. <i>Journal of Geophysical Research</i> , 1979 , 84, 6109	258
1703	Driving Mechanisms for the Earth's Dynamo. 1979 , 21, 1-50	18
1702	Some physical properties of amorphous SiO ₂ synthesized by shock compression of quartz. 1980 , 5, 367-377	30
1701	Third-order elastic constants of uniaxial crystals. 1980 , 58, 11-36	8
1700	Equations of state of FeO and CaO. 1980 , 62, 505-528	257
1699	Dynamic compression of Earth materials. 1980 , 207, 1035-41	48
1698	Melting of iron under core conditions. 1980 , 7, 533-536	105

1697	Application of the equation of state to the Earth's lower mantle. 1980 , 22, 189-193	1
1696	Core formation, evolution, and convection: a geophysical model. 1980 , 21, 181-201	43
1695	An evaluation of finite strain equations of state using a lattice model. 1980 , 23, 31-38	47
1694	Applications of liquid state physics to the Earth's core. 1980 , 22, 42-52	57
1693	The thermodynamic properties of the earth's lower mantle. 1980 , 23, 314-331	59
1692	On the interpretation of mantle discontinuities. 1980 , 23, 332-336	50
1691	Piezo- and elasto-optic properties of liquids under high pressure. III. Results on twelve more liquids. 1980 , 73, 4577-4584	23
1690	Effects of the gravitational field on liquid distribution in partial melts within the upper mantle. <i>Journal of Geophysical Research</i> , 1980 , 85, 1815	58
1689	Shock effects in olivine and implications for Hugoniot data. <i>Journal of Geophysical Research</i> , 1980 , 85, 3163	53
1688	Mariana Arc structure inferred from gravity and seismic data. <i>Journal of Geophysical Research</i> , 1980 , 85, 5382	26
1687	Piezo- and elasto-optic properties of deuterium oxide under high pressure. 1980 , 72, 1410-1411	1
1686	Pressure and temperature dependence of electrical resistivity of Pb and Sn from 1-300K and 0-10 GPa-use as continuous resistive pressure monitor accurate over wide temperature range; superconductivity under pressure in Pb, Sn and In. 1981 , 11, 623-639	284
1685	Models of the Earth's Core. 1981 , 214, 611-9	390
1684	Rheology of the lower mantle. 1981 , 24, 1-14	61
1683	Elastic properties from acoustic and volume compression experiments. 1981 , 25, 140-158	155
1682	High pressure X-ray diffraction of thorium to 30 GPa. 1981 , 78, 147-153	49
1681	Equations of state of CaO under static pressure conditions. 1981 , 8, 140-142	109
1680	Hugoniot equation of state of periclase to 200 GPa. 1981 , 8, 729-732	129

1679	Chapter 19 Petrogenesis of Archaean Ultramafic magmas and implications for Archaean Tectonics. 1981 , 4, 469-489	8
1678	Melt segregation from partially molten source regions: The importance of melt density and source region size. <i>Journal of Geophysical Research</i> , 1981 , 86, 6261-6271	311
1677	Phase transition in SrO. <i>Journal of Geophysical Research</i> , 1981 , 86, 11773	117
1676	On the mechanism of the gravitational differentiation in the inner earth. 1981 , 167-195	3
1675	The role of oxidation-reduction reactions in the Earth's early history. 1981 , 196-209	
1674	Finite strain theories and comparisons with seismological data. 1981 , 4, 189-232	145
1673	Evaluation of crystallization temperatures of mineral paragenesis in consolidated crust and uppermost mantle from explosion seismology data. 1981 , 119, 854-864	1
1672	The Earth's radius and the G variation. 1981 , 290, 739-744	14
1671	Structure of the Earth's inner core. 1981 , 292, 232-233	135
1670	State of matter and internal structure of planets. 1981 , 1, 85-102	1
1669	Modified sf model for mixed-valence Eu chalcogenides. 1982 , 15, 733-745	18
1668	Phase Transformations and Differentiation in Subducted Lithosphere: Implications for Mantle Dynamics, Basalt Petrogenesis, and Crustal Evolution. 1982 , 90, 611-643	385
1667	Comments on the Theory of the Metal-Insulator Transitions in the Mixed-Valent Systems. 1982 , 51, 776-781	1
1666	The β -zone. 1982 , 9, 808-811	4
1665	Geodynamical and geodetic consistency tests of Earth density models. 1982 , 28, 291-301	4
1664	Pressure effects on bonding in CaO: Comparison with MgO. <i>Journal of Geophysical Research</i> , 1982 , 87, 303-310	40
1663	Thermochemical plumes and mantle phase transitions. <i>Journal of Geophysical Research</i> , 1982 , 87, 3993	40
1662	Deformation of single-crystal clinopyroxenes: 1. Mechanical twinning in diopside and hedenbergite. <i>Journal of Geophysical Research</i> , 1982 , 87, 4019	44

1661	Bulk attenuation in a polycrystalline Earth. <i>Journal of Geophysical Research</i> , 1982 , 87, 7772	65
1660	Anharmonic properties: Ionic model of the effects of compression and coordination change. <i>Journal of Geophysical Research</i> , 1982 , 87, 10763-10772	67
1659	X-ray powder diffraction study of the high pressure behaviour of uranium dioxide. 1982 , 43, 171-177	40
1658	Pressure-volume relationship, quasiparticle density of states and hybridization gap of mixed valence EuO. 1982 , 49, 87-98	26
1657	Elastic properties of intermediate valence, Kondo and stable valence RAl ₂ compounds. 1982 , 44, 1199-1204	34
1656	The object at the centre of the earth. 1982 , 69, 34-37	6
1655	High-pressure polymorphism of FeO? An alternative interpretation and its implications for the Earth's core. 1982 , 70, 57-66	12
1654	Thermodynamics of the system FeFeO-MgO at high pressure and temperature and a model for formation of the Earth's core. 1983 , 72, 577-595	86
1653	Inhomogeneity parameter of a homogeneous Earth. 1983 , 301, 138-139	52
1652	Elastic properties of a single-crystal forsterite Mg ₂ SiO ₄ , up to 1,200 K. 1983 , 10, 38-46	151
1651	Untersuchung von CuGaSe ₂ und CuGaTe ₂ unter hohem Druck. 1983 , 504, 155-162	22
1650	Phase transitions and mantle discontinuities. 1983 , 21, 51	347
1649	Refractive index of liquids at high pressures. 1983 , 11, 1-45	19
1648	Some geophysical constraints on the chemical composition of the earth's lower mantle. 1983 , 62, 91-103	126
1647	Shock compression of single-crystal forsterite. <i>Journal of Geophysical Research</i> , 1983 , 88, 9500-9512	72
1646	Effect of pressure on the optical absorption in aluminium. 1984 , 14, 2753-2767	28
1645	Equation of state and high-pressure phase transition of CsI. 1984 , 29, 1112-1114	55
1644	Structural and bonding changes in cesium iodide at high pressures. 1984 , 223, 53-6	109

1643	Constraints to the three-dimensional non-hydrostatic density distribution in the earth. 1984 , 28, 364-380	12
1642	On the Isothermal Anderson-Grüneisen Parameter in Solids. 1984 , 124, 531-536	15
1641	An improved experimental equation of state of solid hydrogen and deuterium. 1984 , 54, 361-395	27
1640	The high-pressure equation of state of solid molecular tritium. 1984 , 54, 565-585	2
1639	The effects of pressure and temperature on nonstoichiometric wüstite, Fe _{1-x} O: The iron-rich phase boundary. 1984 , 10, 106-113	142
1638	Single-crystal elastic properties of the modified spinel (Beta) phase of magnesium orthosilicate. 1984 , 224, 749-51	201
1637	The system iron-enstatite-water at high pressures and temperatures: Formation of iron hydride and some geophysical implications. 1984 , 36, 135-144	50
1636	Thermal evolution of Venus. 1984 , 34, 232-250	52
1635	Elastic properties of the lower mantle inferred from rigid ion lattice models. 1984 , 34, 85-101	45
1634	The mineralogy and chemistry of the lower mantle: an implication of the ultrahigh-pressure phase relations in the system MgO-FeO-SiO ₂ . 1984 , 67, 238-248	154
1633	The Bakerian Lecture, 1983 - The Earth's core: its composition, formation and bearing upon the origin of the Earth. 1984 , 395, 1-46	41
1632	Derivation of Some Equations of State for Solids. A New Approach. 1985 , 127, 103-108	61
1631	Ramsey's silicate core revisited. 1985 , 314, 407-408	10
1630	Effect of hydrostatic pressure on the elastic properties of some rare earth-iron laves phase compounds. 1985 , 46, 157-163	6
1629	The bulk modulus and its pressure derivative for 18 metals. 1985 , 46, 925-927	36
1628	Static high pressure diamond-anvil studies on uranium to 50 GPa. 1985 , 46, 399-400	23
1627	High-pressure phase transition in CsBr. 1985 , 31, 588-590	73
1626	Mantle dynamics and basalt petrogenesis. 1985 , 112, 17-34	16

1625	Mantle structure and dynamics. 1985 , 66, 1193	10
1624	The Grüneisen parameter at high pressure: a molecular dynamical study. 1985 , 39, 167-177	103
1623	Elastic wave velocities in rocks from a lower crustal section in southern Calabria (Italy). 1985 , 40, 147-160	79
1622	Slow but not fast global expansion may explain the surface dichotomy of Earth. 1986 , 43, 67-89	9
1621	Acoustic and static compression experiments on the elastic behavior of hematite. <i>Journal of Geophysical Research</i> , 1986 , 91, 4651	52
1620	Static compression of iron to 78 GPa with rare gas solids as pressure-transmitting media. <i>Journal of Geophysical Research</i> , 1986 , 91, 4677	233
1619	Equation of state and stability of fluorite-structured SiO ₂ . <i>Journal of Geophysical Research</i> , 1986 , 91, 4704	56
1618	Strict Bounds on Seismic Velocity in the Spherical Earth. <i>Journal of Geophysical Research</i> , 1986 , 91, 13892	25
1617	Transition region of the Earth's upper mantle. 1986 , 320, 321-328	242
1616	Effect of hydrostatic pressure on the exchange interactions in a ferromagnetic spinel CdCr ₂ Se ₄ . 1986 , 33, 1875-1880	15
1615	Potassium and the Earth's core. 1986 , 13, 1145-1148	9
1614	The compressibility of forsterite up to 300 kbar measured with synchrotron radiation. 1986 , 139-140, 193-197	8
1613	Crossover from weak to strong Kondo behaviour in CeAl ₂ . 1986 , 113, 381-383	14
1612	Theoretical calculations of the R1 red shift of ruby under high pressure. 1986 , 115, 245-248	47
1611	Comment on The bulk modulus and its pressure derivative for 18 metals. 1986 , 47, 827-828	2
1610	The 400-km seismic discontinuity and the proportion of olivine in the Earth's upper mantle. 1986 , 324, 449-451	64
1609	Properties of iron at the Earth's core conditions. 1986 , 84, 561-579	130
1608	Model equation-of-state for any material in conditions relevant to ICF and to stellar interiors. 1986 , 4, 393-402	25

1607	Optical phonons and elasticity of diamond at megabar stresses. 1986 , 34, 5808-5819	161
1606	Potential-induced breathing model for the elastic moduli and high-pressure behavior of the cubic alkaline-earth oxides. 1986 , 33, 8685-8696	169
1605	Thermodynamics of Stable Mineral Assemblages of the Mantle Transition Zone. 1986 , 310-361	13
1604	First Principles Calculation of Ground State and Electronic Properties of C and Si. 1987 , 35, 706-709	6
1603	Absence of discontinuity in the pressure-volume dependence of CeAl ₂ and CeIn ₃ . 1987 , 17, 849-856	25
1602	Synthesis and Equation of State of (Mg,Fe) SiO ₃ Perovskite to Over 100 Gigapascals. 1987 , 235, 668-70	358
1601	Pressure-induced phase transitions of MnTe. 1987 , 20, 4689-4694	14
1600	High Pressure and High Temperature Equations of State of Majorite. 1987 , 141-147	12
1599	Theoretical Study of the Structural Properties and Equations of State of MgSiO ₃ and CaSiO ₃ Perovskites: Implications for Lower Mantle Composition. 1987 , 313-331	17
1598	Chapter One General Physical Properties of the Earth. 1987 , 1-80	
1597	Chapter Five The Constitution of the Core. 1987 , 37, 297-346	
1596	High-Pressure Research in Geophysics: Past, Present and Future. 1987 , 1-13	6
1595	Experimental Phase Relations of Iron to 360 Kbar, 1400°C, Determined in an Internally Heated Diamond-Anvil Apparatus. 1987 , 135-138	11
1594	Experimental Study on the Phase Relations in the System Fe-Ni-O-S Up to 15 Gpa. 1987 , 95-111	20
1593	50 years of studies on the inner core. 1987 , 68, 73	11
1592	Is the mantle geotherm subadiabatic?. 1987 , 14, 335-338	35
1591	The effects of adiabatic and viscous heatings on plumes. 1987 , 14, 1223-1226	41
1590	Viscous relaxation of a compressible spherical shell. 1987 , 14, 1227-1230	16

1589	The Melting Curve of Iron to 250 Gigapascals: A Constraint on the Temperature at Earth's Center. 1987 , 236, 181-2	315
1588	A seismic equation of state II. Shear properties and thermodynamics of the lower mantle. 1987 , 45, 307-323	174
1587	Chaotic axisymmetrical spherical convection and large-scale mantle circulation. 1987 , 86, 93-104	35
1586	Olivine-spinel transitions: Experimental and thermodynamic constraints and implications for the nature of the 400-km seismic discontinuity. <i>Journal of Geophysical Research</i> , 1987 , 92, 4853	144
1585	Global correlations of ocean ridge basalt chemistry with axial depth and crustal thickness. <i>Journal of Geophysical Research</i> , 1987 , 92, 8089	1199
1584	Pressure-temperature-volume relationship for hexagonal close packed iron determined by synchrotron radiation. <i>Journal of Geophysical Research</i> , 1987 , 92, 8129	56
1583	Pyrite: Shock compression, isentropic release, and composition of the Earth's core. <i>Journal of Geophysical Research</i> , 1987 , 92, 10363-10375	110
1582	Global Images of the Earth's Interior. 1987 , 236, 37-48	255
1581	On the pressure-temperature phase diagram of the Kondo compound CeAl ₂ . 1987 , 48, 635-640	9
1580	Compressibility of solids. <i>Journal of Geophysical Research</i> , 1987 , 92, 9319	507
1579	Is the inner core of the Earth pure iron?. 1987 , 325, 332-335	171
1578	High-pressure phase transformation studies in gadolinium to 106 GPa. 1988 , 49, 573-576	36
1577	Subduction zone earthquakes and stress in slabs. 1988 , 128, 547-624	66
1576	Ground State and Electronic Properties of Silicon Carbide and Boron Nitride. 1988 , 146, 573-587	37
1575	Formation of propagation pattern in two-phase flow systems with application to volcanic eruptions. 1988 , 95, 613-623	34
1574	A model of velocity structure beneath Calabria, southern Italy, based on laboratory data. 1988 , 87, 325-337	70
1573	Elastic behavior of magnetic oxides from acoustic and static compression studies. 1988 , 51, 86-92	3
1572	Effects of compressibility on the temperature jump at the interface of layered, spherical-shell convection. 1988 , 15, 447-450	2

1571	Dynamical effects on the core-mantle boundary from depth-dependent thermodynamical properties of the lower mantle. 1988 , 15, 451-454	22
1570	Convection experiments in high Prandtl number silicones, Part 2. Deformation, displacement and mixing in the Earth's mantle. 1988 , 154, 97-123	12
1569	The equation of state of molybdenum at 1400 °C. 1988 , 63, 4469-4475	36
1568	High-pressure/high-temperature studies in geophysics. 1988 , 22, 157-161	5
1567	Static compression and olivine flotation in ultrabasic silicate liquid. <i>Journal of Geophysical Research</i> , 1988 , 93, 3437	136
1566	Phase relationships in Fe-Ni alloys at high pressures and temperatures. <i>Journal of Geophysical Research</i> , 1988 , 93, 7741	34
1565	Static compression and equation of state of CaO to 1.35 Mbar. <i>Journal of Geophysical Research</i> , 1988 , 93, 15279-15288	105
1564	Theoretical isothermal equation of state of rhenium. 1988 , 38, 10926-10928	6
1563	s-d transition and the universal equation of state. 1988 , 38, 8463-8464	45
1562	Ground-state and electronic properties of covalent solids. 1988 , 38, 12675-12678	18
1561	Universal equation of state. 1988 , 38, 805-807	69
1560	Diamond-anvil cell high pressure X-ray studies on thorium to 100 GPa. 1988 , 1, 91-95	17
1559	The Bulk Modulus/Volume Relationship for Oxide Compounds and Related Geophysical Problems. 1988 , 153-165	1
1558	Some Elastic Constant Data on Minerals Relevant to Geophysics. 1988 , 237-270	
1557	Homogeneity and Constitution of the Earth's Lower Mantle and Outer Core. 1988 , 341-348	
1556	The Velocity of Compressional Waves in Rocks to 10 Kilobars, Part 2. 1988 , 91-116	1
1555	Static Compression of Iron T78 Gpa with Rare Gas Solids as Pressure-Transmitting Media. 1988 , 524-531	
1554	Equations of State of Iron Sulfide and Constraints on the Sulfur Content of the Earth. 1988 , 427-440	

1553 Composition of the Earth's Mantle. **1988**, 117-133

1552 Some Geophysical Constraints on the Chemical Composition of the Earth's Lower Mantle. **1988**, 475-487

1551 Pressure Dependence of the Thermal Gr \ddot{u} neisen Parameter, with Application to the Earth's Lower Mantle and Outer Core. **1988**, 349-357

1550 A Seismic Equation of State. **1988**, 171-192

1549 Elastic Constants of Single-Crystal Forsterite as a Function of Temperature and Pressure. **1988**, 271-282

1

1548 The Use of Ultrasonic Measurements Under Modest Compression to Estimate Compression at High Pressure. **1988**, 134-152

1547 Compressibility and stability of icosahedral Al-Mn up to 28 GPa. **1989**, 39, 2654-2660

26

1546 Theory of high-pressure phases of hydrogen. **1989**, 62, 1150-1153

137

1545 Electronic structure of (diamond C)/(sphalerite BN) (110) interfaces and superlattices. **1989**, 40, 9909-9919

68

1544 Density and composition of the lower mantle. **1989**, 328, 377-389

103

1543 Inverted isothermal equations of state and determination of B₀, B'₀ and B₀. **1989**, 50, 263-268

58

1542 Empirical equation of state theories at ultra-high pressures. **1989**, 135, 129-131

18

1541 Liquid-Phase Sintering of Aluminum Nitride by Europium Oxide Additives. **1989**, 72, 1409-1414

28

1540 Universal features of the equation of state of solids. **1989**, 1, 1941-1963

679

1539 Anharmonicity and the equation of state for gold. **1989**, 65, 1534-1543

473

1538 Compressible convection in the Earth's mantle: A comparison of different approaches. **1989**, 16, 633-636

57

1537 Phase relations in iron-rich systems and implications for the Earth's core. **1989**, 55, 208-220

14

1536 Measurement of elastic constants of mantle-related minerals at temperatures up to 1800 K. **1989**, 55, 241-253

18

1535	Metal-silicate-water reaction under high pressure. I. Formation of metal hydride and implications for composition of the core and mantle. 1989 , 56, 377-388	7
1534	Petrological constraints on seismic anisotropy. 1989 , 54, 82-105	110
1533	Ideal Fe ²⁺ /FeS, Fe ²⁺ /FeO phase relations and Earth's core. 1989 , 55, 154-186	21
1532	Experimental pictures of deformation patterns in a possible model of the Earth's interior. 1989 , 91, 367-373	7
1531	Seismic velocities in mantle minerals and the mineralogy of the upper mantle. <i>Journal of Geophysical Research</i> , 1989 , 94, 1895	478
1530	Penetrative convective flows induced by internal heating and mantle compressibility. <i>Journal of Geophysical Research</i> , 1989 , 94, 10609-10626	57
1529	Stability and equation of state of CaSiO ₃ -Perovskite to 134 GPa. <i>Journal of Geophysical Research</i> , 1989 , 94, 17889	132
1528	Energetics of bcc-fcc lattice deformation in iron. 1989 , 40, 11536-11545	81
1527	Theoretical Study of High Pressure Metallic Hydrogen. 1990 , 193, 15	
1526	Laboratory seismic measurements: an aid in the interpretation of seismic field data. 1990 , 2, 617-628	59
1525	Static EOS of uranium to 100 GPa pressure. 1990 , 2, 295-302	33
1524	Thermoelastic stability of multiple growth twins in quartz and general geobarothermometric implications. 1990 , 23, 253-287	8
1523	Equation of state of MnAs _{0.88} P _{0.12} . 1990 , 87, 222-228	1
1522	50 years of studies on the inner core. 1990 , 140-144	
1521	Effects of gradient corrections on electronic structure in metals. 1990 , 2, 7597-7611	85
1520	Pressure Dependence of Elastic Wave Velocity for beta-Mg ₂ SiO ₄ and the Composition of the Earth's Mantle. 1990 , 250, 794-7	101
1519	An equation of state applied to sodium chloride and caesium chloride at high pressures and high temperatures. 1990 , 2, 3219-3229	41
1518	Heat transfer and the onset of chaos in a spherical, axisymmetric, anelastic model of whole mantle convection. 1990 , 53, 205-255	53

1517	Irreversible phase transitions and wave propagation in silicate geologic materials. 1990 , 68, 1563-1579	52
1516	Some rheological properties of the Earth's mantle. 1990 , 179, 151-162	2
1515	Constraints on lower mantle composition and temperature from density and bulk sound velocity profiles. 1990 , 17, 1153-1156	57
1514	Structural properties and electronic structure of low-compressibility materials: beta -Si ₃ N ₄ and hypothetical beta -C ₃ N ₄ . 1990 , 41, 10727-10734	897
1513	Pressure dependence of the electronic properties of cubic III-V In compounds. 1990 , 41, 1598-1602	63
1512	Mantle plumes, mantle stirring and hotspot chemistry. 1990 , 99, 94-109	110
1511	Thermodynamically consistent decompression: Implications for lower mantle composition. <i>Journal of Geophysical Research</i> , 1990 , 95, 12583	39
1510	Melting relations in the iron-sulfur system at ultra-high pressures: Implications for the thermal state of the Earth. <i>Journal of Geophysical Research</i> , 1990 , 95, 19299	79
1509	Fundamental thermodynamic relations and silicate melting with implications for the constitution of D?. <i>Journal of Geophysical Research</i> , 1990 , 95, 19311	97
1508	Dynamical effects from equation of state on topographies and geoid anomalies due to internal loading. <i>Journal of Geophysical Research</i> , 1990 , 95, 19933	15
1507	Issues concerning shock temperature measurements of iron and other metals. <i>Journal of Geophysical Research</i> , 1990 , 95, 21749	38
1506	Structural properties of SiO ₂ in the stishovite structure. 1991 , 44, 4081-4088	34
1505	Precise density-functional method for periodic structures. 1991 , 44, 7888-7903	391
1504	Mantle convection with internal heating and pressure-dependent thermal expansivity. 1991 , 102, 213-232	41
1503	Solubilities of mantle oxides in molten iron at high pressures and temperatures: implications for the composition and formation of Earth's core. 1991 , 102, 235-251	49
1502	The high-pressure phase diagram of Fe _{0.94} O: A possible constituent of the Earth's core. <i>Journal of Geophysical Research</i> , 1991 , 96, 16169	75
1501	The high-pressure melting curve of iron: A technical discussion. <i>Journal of Geophysical Research</i> , 1991 , 96, 2171	62
1500	Effects of phase transitions and possible compositional changes on the seismological structure near 650 km depth. 1991 , 18, 1743-1746	33

- 1499 Chemical bonding in the outer core: High-pressure electronic structures of oxygen and sulfur in metallic iron. *Journal of Geophysical Research*, **1991**, 96, 18029 11
- 1498 Pressure derivatives of the bulk modulus. *Journal of Geophysical Research*, **1991**, 96, 21893-21907 27
- 1497 Compressible convection in a viscous Venusian mantle. *Journal of Geophysical Research*, **1991**, 96, 15551-15562 17
- 1496 Phase transformations and their bearing on the constitution and dynamics of the mantle. **1991**, 55, 2083-2110 396
- 1495 Dynamic high-pressure properties of AlN ceramic as determined by flyer plate impact. **1991**, 70, 167-171 55
- 1494 Ultradeep (>300 kilometers) ultramafic xenoliths: petrological evidence from the transition zone. **1991**, 252, 827-30 110
- 1493 Spinel elasticity and seismic structure of the transition zone of the mantle. **1991**, 354, 143-145 97
- 1492 Post-Glacial Relaxation of A Viscously Stratified Compressible Mantle. **1991**, 104, 331-349 16
- 1491 On the tests of universality for isothermal equations of state. **1991**, 3, 775-780 7
- 1490 Strain energy and stability of Si-Ge compounds, alloys, and superlattices. **1991**, 44, 1663-1681 57
- 1489 Ionic solids at high pressures and elevated temperatures: MgO (periclase). **1991**, 95, 6792-6799 22
- 1488 Theoretical study of atomic phases of metallic hydrogen. **1991**, 44, 11563-11568 19
- 1487 Viscous flow models of global geophysical observables: 1. Forward problems. *Journal of Geophysical Research*, **1991**, 96, 20131-20159 151
- 1486 Structural and electronic properties of K₄C₆₀. **1992**, 46, 1766-1772 102
- 1485 Ab initio calculation of density dependence of liquid-Na properties. **1992**, 45, 9663-9666 29
- 1484 Mantle Convection. **1992**, 100, 151-206 322
- 1483 Elastic Instabilities and Amorphization of Crystalline Silica Under Pressure. **1992**, 291, 629 1
- 1482 Structural and electronic properties of titanium dioxide. **1992**, 46, 1284-1298 335

1481	High-temperature elastic constant data on minerals relevant to geophysics. 1992 , 30, 57	226
1480	Phase diagram and elastic properties of Fe 30% Ni alloy by synchrotron radiation. <i>Journal of Geophysical Research</i> , 1992 , 97, 4497	17
1479	Petrology, elasticity, and composition of the mantle transition zone. <i>Journal of Geophysical Research</i> , 1992 , 97, 6849	324
1478	The structure of the core-mantle boundary from diffracted waves. <i>Journal of Geophysical Research</i> , 1992 , 97, 8749	90
1477	Structural and electronic properties of C60. 1992 , 46, 1754-1765	253
1476	Compression and coordination changes in pyroxenoids: an EXAFS study of MgGeO ₃ enstatite and CaGeO ₃ wollastonite. 1992 , 18, 506-513	13
1475	Sound velocities at high pressure and temperature and their geophysical implications. <i>Journal of Geophysical Research</i> , 1992 , 97, 4503	80
1474	X-ray diffraction study of TiO ₂ up to 49 GPa. 1993 , 192, 233-237	95
1473	A modeling of the structure and compressibility of quartz with a molecular potential and its transferability to cristobalite and coesite. 1993 , 20, 123-135	17
1472	Equation of state and high pressure phase transition of NiS in the NiAs structure. 1993 , 54, 5-7	7
1471	Dynamical consequences of depth-dependent thermal expansivity and viscosity on mantle circulations and thermal structure. 1993 , 77, 205-223	115
1470	Non-linear acoustic properties of samarium phosphate glasses. 1993 , 152, 83-96	8
1469	Olivine flotation in mantle melt. 1993 , 114, 315-324	110
1468	Carbon in the core. 1993 , 117, 593-607	253
1467	First principles methods for structural trends in oxides: applications to crystalline silica. 1993 , 197, 137-144	6
1466	Seismic properties of rocks exposed in the POLAR profile region—constraints on the interpretation of the refraction data. 1993 , 64, 169-187	34
1465	Equation of state and high-pressure phase transitions of stishovite (SiO ₂): Ab initio (periodic Hartree-Fock) results. <i>Journal of Geophysical Research</i> , 1993 , 98, 11865-11873	18
1464	Electronic and structural properties of RuO ₂ . 1993 , 47, 1732-1741	81

1463	d-orbital theory for an octahedral-site-symmetry crystal and pressure-induced spectral shifts in ruby. 1993 , 48, 68-72	2
1462	Electronic structure, ordering effects, phase stability, and magnetism in Fe _{1-x} Cr _x systems. 1993 , 47, 3255-3267	48
1461	Phase transitions in ruthenium dioxide up to 40 GPa: Mechanism for the rutile-to-fluorite phase transformation and a model for the high-pressure behavior of stishovite SiO ₂ . 1993 , 48, 13344-13350	79
1460	Viscous and adiabatic heating effects in three-dimensional compressible convection at infinite Prandtl number. 1993 , 5, 2938-2945	29
1459	X-ray measurements of the compressibility of an Al _{5.1} Li ₃ Cu quasi-crystal. 1994 , 6, 2185-2188	1
1458	Intermediate 4f bonding structure for samarium under pressure. 1994 , 50, 6603-6608	31
1457	Anti-Invar behavior in enhanced paramagnets. 1994 , 49, 11979-11985	7
1456	Confined ZrO ₂ particles in NiO γ -Al ₂ O ₃ spinel. 1994 , 184, L5-L9	6
1455	Predicting properties and new materials. 1994 , 92, 45-52	68
1454	Mössbauer spectroscopy of quenched high-pressure phases: Investigating the Earth's interior. 1994 , 90, 89-105	10
1453	Molecular dynamics of MgSiO ₃ perovskite at high pressures: Equation of state, structure, and melting transition. 1994 , 58, 4039-4047	131
1452	Molecular dynamics of silica at high pressures: Equation of state, structure, and phase transitions. 1994 , 58, 1557-1566	20
1451	Pressure-temperature range of reactions between liquid iron in the outer core and mantle silicates. 1994 , 21, 153-156	26
1450	Sensitivity of convection with an endothermic phase change to the form of governing equations, initial conditions, boundary conditions, and equation of state. <i>Journal of Geophysical Research</i> , 1994 , 99, 15919	82
1449	Effects of multiple phase transitions in a three-dimensional spherical model of convection in Earth's mantle. <i>Journal of Geophysical Research</i> , 1994 , 99, 15877	195
1448	Introduction to the Special Section on the Transition Zone. <i>Journal of Geophysical Research</i> , 1994 , 99, 15779	1
1447	What Is in the Earth's Core Besides Iron?. 1994 , 266, 1662-3	4
1446	Is there an elastic anomaly for a (001) monolayer of InAs embedded in GaAs?. 1994 , 65, 165-167	53

1445	A study of the stability of anorthite in the PT conditions of Earth's transition zone. 1994 , 125, 281-291	17
1444	Mineral physics constraints on the chemical composition of the Earth's lower mantle. 1994 , 85, 273-292	56
1443	Light elements in the Earth's outer core: A critical review. 1994 , 85, 319-337	503
1442	Stability of carbon nitride solids. 1994 , 50, 10362-10365	329
1441	Iron at high pressure: Linearized-augmented-plane-wave computations in the generalized-gradient approximation. 1994 , 50, 6442-6445	206
1440	Ab Initio Study of Pd Carbonyls and CO/Pd(110). 1994 , 344, 121	
1439	Global seismic tomography of the mantle. 1995 , 33, 419	26
1438	Mineral physics of iron and of the core. 1995 , 33, 429	22
1437	High pressure solid-liquid equilibria and PVTx relationships for the 1-methylnaphthalene-indole system. 1995 , 104, 391-402	11
1436	Thermodynamic properties of the generalized Murnaghan equation of state of solids. 1995 , 16, 1009-1026	8
1435	Total energy calculations in the DFT on binary compounds. 1995 , 55, 339-345	20
1434	MgAl ₂ O ₄ spinel crystal structure. An ab initio perturbed ion study. 1995 , 56, 685-694	3
1433	The causes of the major seismic discontinuities in the transition zone of the Earth's mantle. 1995 , 121, 404-408	2
1432	Second-order rutile-type to CaCl ₂ -type phase transition in β -MnO ₂ at high pressure. 1995 , 56, 965-973	57
1431	High-pressure synthesis, characterization, and equation of state of cubic C-BN solid solutions. 1995 , 51, 12149-12156	213
1430	Local environment effects and energy properties of bcc Fe-based alloys. 1995 , T57, 88-93	
1429	Mineral physics of the mantle. 1995 , 33, 425	3
1428	Pressure-tuning flotation method for measurement of specific volume of solid organic compounds under high pressures. 1995 , 66, 3317-3320	2

1427	The physics of planetary interiors. 1995 , 58, 755-820	1
1426	Crystal structure of UAl ₂ above 10 GPa at 300 K. 1995 , 223, 49-52	24
1425	Pure silicate perovskite and the PREM lower mantle model: a thermodynamic analysis. 1995 , 89, 35-49	27
1424	Theory of thermal and elastic properties of the lower mantle and core. 1995 , 89, 219-245	96
1423	A new thermodynamic approach for high-pressure physics. 1995 , 91, 3-16	36
1422	Regionalized temperature variations in the upper 400 km of the Earth's mantle. 1995 , 91, 177-186	3
1421	The composition of the Earth. 1995 , 120, 223-253	9036
1420	Stability of possible Fe-FeS and Fe-FeO alloy phases at high pressure and the composition of the Earth's core. 1995 , 132, 87-98	61
1419	Static compression of β -FeSi and an evaluation of reduced silicon as a deep Earth constituent. 1995 , 22, 445-448	37
1418	High pressure effects on thermal properties of MgO. 1995 , 22, 1533-1536	53
1417	Universal compressibility behavior of dense phases. 1995 , 51, 28-37	75
1416	The high-pressure phase transition sequence from the rutile-type through to the cotunnite-type structure in. 1996 , 8, 1631-1646	60
1415	Experimental and Theoretical Studies of ScS under Pressure. 1996 , 35, 6933-6936	9
1414	Thermodynamic Analysis of the Formation of Carbon Nitrides under Pressure. 1996 , 8, 535-540	68
1413	CO on Pd(110): determination of the optimal adsorption site. 1996 , 360, 31-42	27
1412	Analysis of P-V-T data: constraints on the thermoelastic properties of high-pressure minerals. 1996 , 96, 85-112	169
1411	Elasticity of stishovite at high pressure. 1996 , 96, 113-127	76
1410	Fe?FeS eutectic temperatures to 620 kbar. 1996 , 96, 181-186	47

1409	Potential role played by viscous heating in thermal-chemical convection in the outer core. 1996 , 60, 1113-1123	7
1408	Molecular and lattice dynamics study of the MgO-SiO ₂ system using a transferable interatomic potential. 1996 , 60, 1645-1656	37
1407	Partitioning of H and C between the mantle and core during the core formation in the Earth: Its implications for the atmospheric evolution and redox state of early mantle. <i>Journal of Geophysical Research</i> , 1996 , 101, 14909-14932	63
1406	Limits on the value of α_T and β for MgSiO ₃ perovskite. 1996 , 98, 31-46	21
1405	A computer simulation approach to the high pressure thermoelasticity of MgSiO ₃ perovskite. 1996 , 98, 55-63	10
1404	Thermoelasticity of (Mg, Fe)SiO ₃ perovskite and a comparison with the lower mantle. 1996 , 98, 65-77	27
1403	Pa3 Modified Fluorite-Type Structures in Metal Dioxides at High Pressure. 1996 , 271, 629-631	101
1402	Total-energy study of electronic structure and mechanical behavior of C15 Laves phase compounds: NbCr ₂ and HfV ₂ . 1996 , 54, 12753-12762	72
1401	Thermal properties of iron at high pressures and temperatures. 1996 , 53, 8296-8309	146
1400	Elastic Constants of A Laves Phase Compound: C15 NbCr ₂ . 1996 , 460, 623	3
1399	Structure and bonding in the deep mantle and core. 1996 , 354, 1461-1479	11
1398	MELTING TEMPERATURE OF THE EARTH'S MANTLE AND CORE: Earth's Thermal Structure. 1996 , 24, 15-40	117
1397	Application of high pressure equation of state for different classes of solids. 1996 , 217, 143-148	35
1396	Pressure induced isostructural and structural transitions in ThAl ₂ . 1996 , 228, 369-373	10
1395	An ab initio perturbed ion study of structural properties of TiO ₂ , SnO ₂ and GeO ₂ rutile lattices. 1996 , 212, 381-391	24
1394	A comparative study of birch and kumar equations of state under high pressure NaCl as an example. 1996 , 196, 303-307	12
1393	Comparison between tomographic structures and models of convection in the upper mantle. 1996 , 124, 45-56	21
1392	The search for a universal equation of state correct up to very high pressures. 1996 , 8, 67-81	108

1391	Transition from magnetic to nonmagnetic ground state in a heavy-fermion compound Ce7Ni3 under high pressure. 1996 , 54, 1194-1198	35
1390	High-Pressure X-ray Diffraction Study of CuFeO2. 1996 , 35, 3535-3536	11
1389	High pressure behaviour of the -cristobalite-type phase of phosphorus oxynitride, PON. 1996 , 8, L773-L777	17
1388	Temperature-dependent equation of state of condensed matter. 1997 , 9, 2987-2998	9
1387	Structural and electronic properties of diamond with hypothetical vacancies stabilized by nitrogen or boron atoms. 1997 , 55, 15349-15352	9
1386	Transition in Ce from temperature-dependent band-structure calculations. 1997 , 55, 1288-1291	45
1385	Earth regeneration effect in solar neutrino oscillations: An analytic approach. 1997 , 56, 1792-1803	87
1384	Temperature-dependent electronic structure: from heavy fermion behaviour to phase stability. 1997 , 60, 1305-1349	14
1383	Novel Structure of MgSe in the Multimegabar Regime: Positional Parameter Determination. 1997 , 499, 429	
1382	Structural and electrical properties of GeSe and GeTe at high pressure. 1997 , 56, 7935-7941	97
1381	Pressure-induced structural sequence in ThAl2. 1997 , 55, 745-749	21
1380	X-ray diffraction study of the phase transitions and structural evolution of tin dioxide at high pressure: Relationships between structure types and implications for other rutile-type dioxides. 1997 , 55, 11144-11154	228
1379	Theoretical study of boron nitride modifications at hydrostatic pressures. 1997 , 55, 6203-6210	116
1378	Computer simulation and boron nitride. 1997 , 141, 85-97	73
1377	Experimental melting curve of iron revisited. <i>Journal of Geophysical Research</i> , 1997 , 102, 22659-22669	57
1376	Anisotropy of the Earth's inner core. 1997 , 35, 297-313	108
1375	Bulk sound travel times and implications for mantle composition and outer core heterogeneity. 1997 , 24, 499-502	12
1374	Ultrasoft pseudopotentials applied to magnetic Fe, Co, and Ni: From atoms to solids. 1997 , 56, 15629-15646	302

1373	Refractive index of the alkali halides. II. Effect of pressure on the refractive index of 11 alkali halides. 1997 , 55, 6865-6870	29
1372	Single-crystal elasticity of β -Mg ₂ SiO ₄ to the pressure of the 410 km seismic discontinuity in the Earth's mantle. 1997 , 147, E9-E15	101
1371	Metal-silicate partitioning and the incompatibility of S and Si during core formation. 1997 , 152, 139-148	91
1370	Bullen's seismological homogeneity parameter, η applied to a mixture of minerals: the case of the lower mantle. 1997 , 99, 189-193	10
1369	Constraints on core chemistry from the pressure dependence of the bulk modulus. 1997 , 100, 49-59	26
1368	Dynamical influences of depth-dependent properties on mantle upwellings and temporal variations of the moment of inertia. 1997 , 102, 153-170	6
1367	Embedded-atom molecular dynamic study of iron melting. 1997 , 102, 171-184	39
1366	Implications of a Pressure Induced Phase Transition in the Search for Cubic Ti ₃ Al. 1997 , 78, 1054-1057	18
1365	Electronic structure and structural stability of TiC _x N _{1-x} alloys. 1997 , 56, 13826-13829	77
1364	Short-period observation of the 520 km discontinuity in northern Eurasia. <i>Journal of Geophysical Research</i> , 1997 , 102, 5413-5422	22
1363	Non-linear elastic behaviour of damaged rocks. 1997 , 130, 157-166	77
1362	X-Ray diffraction study of copper iron oxide [CuFeO ₂] under pressures up to 10 Gpa. 1997 , 32, 151-157	27
1361	Composition and temperature of Earth's inner core. <i>Journal of Geophysical Research</i> , 1997 , 102, 24729-24739	112
1360	Single Crystal Diffraction Studies of WO ₃ at High Pressures and the Structure of a High-Pressure WO ₃ Phase. 1997 , 132, 123-130	39
1359	Phase diagram of uranium at high pressures and temperatures. 1998 , 57, 10359-10362	85
1358	The core-mantle boundary layer and deep Earth dynamics. 1998 , 392, 461-468	337
1357	Single-Crystal High-Pressure Studies of Na ₃ ScF ₆ . 1998 , 135, 116-120	8
1356	Equation of state of cementitious materials by ultrasonic methodology. 1998 , 251, 121-128	8

1355	The coupled rotation of the inner core. 1998 , 133, 279-297	14
1354	Elasticity, composition and temperature of the Earth's lower mantle: a reappraisal. 1998 , 134, 291-311	144
1353	Crystal orbital scheme for Si ₃ N ₄ . 1998 , 24, 333-339	5
1352	Crystal-liquid density inversions in terrestrial and lunar magmas. 1998 , 107, 63-74	124
1351	Thermoelasticity of a mineral composite and a reconsideration of lower mantle properties. 1998 , 106, 219-236	41
1350	A logarithmic equation of state. 1998 , 109, 1-8	201
1349	DFT-DA study of NO adsorption on Rh(110) surface. 1998 , 415, 11-19	19
1348	High-pressure isosymmetric phase transition in orthorhombic lead fluoride. 1998 , 57, 7551-7555	34
1347	Ab initio study of the martensitic bcc-hcp transformation in iron. 1998 , 58, 5296-5304	105
1346	Pressure and temperature dependence of heat capacity and entropy in condensed matter. 1998 , 10, L603-L606	5
1345	A Periodic Density Functional Theory and Hartree-Fock Study of Alkali Halides with Gaussian Orbitals. 1998 , 102, 10310-10317	9
1344	On shear flow of a saturated ice-sediment mixture with thermodynamic equilibrium pressure and momentum exchange. 1998 , 454, 71-88	5
1343	Elastic wave velocities of forsterite and its spinel form and chemical boundary hypothesis for the 410-km discontinuity. <i>Journal of Geophysical Research</i> , 1998 , 103, 9591-9608	29
1342	High-pressure transformations in MgAl ₂ O ₄ . <i>Journal of Geophysical Research</i> , 1998 , 103, 20813-20818	74
1341	A Reversible, Isosymmetric, High-Pressure Phase Transition in Na ₃ MnF ₆ . 1998 , 37, 1486-1492	18
1340	The temperature contrast across D?. 1998 , 73-81	29
1339	Geodynamically consistent seismic velocity predictions at the base of the mantle. 1998 , 209-230	22
1338	First-Principles Investigations of Solid Iron at High Pressure and Implications for the Earth's Inner Core. 1998 , 159-171	3

1337	Ab initio study of iron and iron hydride: I. Cohesion, magnetism and electronic structure of cubic Fe and FeH. 1998 , 10, 5081-5111	34
1336	First-principles simulations of liquid Fe-S under Earth's core conditions. 1998 , 58, 8248-8256	73
1335	Enhancement of Surface Hardness: Boron on Diamond (111). 1998 , 80, 995-998	18
1334	Sevenfold Coordinated MgSe: Experimental Internal Atom Position Determination to 146 GPa, Diffraction Studies to 202 GPa, and Theoretical Studies to 500 GPa. 1998 , 81, 2723-2726	37
1333	Extension of the universal equation of state for solids in high-pressure phases. 1998 , 58, 20-22	16
1332	Single crystal X-ray diffraction studies of Na ₂ MnF ₅ at high hydrostatic pressures. 1999 , 214, 259-263	2
1331	Equations-of-state for close-packed materials at high pressures: geophysical evidence. 1999 , 11, 575-582	15
1330	Structural stability of some possible phases of SiC ₂ N ₄ . 1999 , 60, 11943-11946	23
1329	High-pressure elastic properties of the orientationally disordered and hydrogen-bonded phase of solid HCl. 1999 , 59, 11727-11732	15
1328	High-pressure structural phase transitions in semiconducting niobium dioxide. 1999 , 59, 13650-13656	18
1327	High-pressure Brillouin study of solid HBr at pressures up to 7 GPa. 1999 , 111, 10617-10621	4
1326	Crystal structure and high pressure behaviour of the quartz-type phase of phosphorus oxynitride PON. 1999 , 60, 145-152	39
1325	On the universality of phenomenological isothermal equations of state for solids. 1999 , 271, 158-164	26
1324	Cohesive, structural, and electronic properties of Fe-Si compounds. 1999 , 59, 12860-12871	190
1323	On the generation of deep focus earthquakes in subduction zones. 1999 , 12, 573-583	4
1322	Theoretical study of two expanded phases of crystalline germanium: clathrate-I and clathrate-II. 1999 , 11, 6129-6145	66
1321	Theoretical study of the vibrational modes and their pressure dependence in the pure clathrate-II silicon framework. 1999 , 60, 950-958	84
1320	Ionic layered PbFCl-type compounds under high pressure. 1999 , 59, 4011-4022	37

1319	Relative stability of some possible phases of graphitic carbon nitride. 1999 , 59, 11683-11686	105
1318	Pressure-induced phase transitions in AgCl, AgBr, and AgI. 1999 , 59, 750-761	148
1317	Compositional heterogeneity in the bottom 1000 kilometers of Earth's mantle: toward a hybrid convection model. 1999 , 283, 1885-8	323
1316	MINERALOGY:Mineralogy at a Crossroads. 1999 , 285, 1026-1027	8
1315	First-principles elastic constants for the hcp transition metals Fe, Co, and Re at high pressure. 1999 , 60, 791-799	325
1314	A theoretical analysis of adsorption and dissociation of CH ₃ OH on the stoichiometric SnO ₂ (110) surface. 1999 , 430, 213-222	65
1313	Petrophysical studies on rocks from the Dabie ultrahigh-pressure (UHP) metamorphic belt, Central China: implications for the composition and delamination of the lower crust. 1999 , 301, 191-215	108
1312	Oxygen in the Earth's core: a first-principles study. 1999 , 110, 191-210	46
1311	Gravitational energy of core evolution: implications for thermal history and geodynamo power. 1999 , 110, 83-93	33
1310	Partitioning of trace amounts of highly siderophile elements in the Fe-Ni-S system and their fractionation in nature. 1999 , 63, 2611-2622	48
1309	An equation of state applied to solid up to 1 TPa. 1999 , 11, 10375-10391	25
1308	Dynamics of a phase change at the base of the mantle consistent with seismological observations. <i>Journal of Geophysical Research</i> , 1999 , 104, 15005-15023	62
1307	Relative stability of ZrO ₂ and HfO ₂ structural phases. 1999 , 60, 14485-14488	185
1306	Effects due to compressional and compositional density stratification on load-induced Maxwell viscoelastic perturbations. 2000 , 140, 51-62	19
1305	High-pressure X-ray investigation of the moganite- and quartz-type phases of phosphorus oxynitride. 2000 , 61, 1447-1453	14
1304	Structure and dynamics of liquid iron under Earth's core conditions. 2000 , 61, 132-142	200
1303	Elasticity of mantle phases at high pressure and temperature. 2000 , 201-213	5
1302	Elasticity of MgO and a primary pressure scale to 55 GPa. 2000 , 97, 13494-9	364

1301	Tersoff Potential Parameters for Simulating Cubic Boron Carbonitrides. 2000 , 39, L48-L51	136
1300	First-principles investigations of transition metal dihydrides, TH ₂ : T = Sc, Ti, V, Y, Zr, Nb; energetics and chemical bonding. 2000 , 12, 4535-4551	45
1299	High-pressure phases and structural bonding of Ge ₃ N ₄ . 2000 , 62, 5-8	32
1298	Oxygen and dioxygen centers in Si and Ge: Density-functional calculations. 2000 , 62, 10824-10840	218
1297	Structural, electronic, and magnetic properties of thin Mn/Cu(100) films. 2000 , 61, 11492-11505	63
1296	Elastic properties of potential superhard phases of RuO ₂ . 2000 , 61, 10029-10034	66
1295	A realistic equation of state for solids. The high pressure and high temperature thermodynamic properties of MgO. 2000 , 24, 133-147	28
1294	The composition and geotherm of the lower mantle: constraints from the elasticity of silicate perovskite. 2000 , 118, 103-109	58
1293	Cadmium, indium, tin, tellurium, and sulfur in oceanic basalts: Implications for chalcophile element fractionation in the Earth. <i>Journal of Geophysical Research</i> , 2000 , 105, 18927-18948	107
1292	On the presence of liquid in Earth's inner core. 2000 , 287, 2471-4	114
1291	In situ X-Ray study of thermal expansion and phase transition of iron at multimegabar pressure. 2000 , 84, 1720-3	179
1290	Geodynamo theory and simulations. 2000 , 72, 1081-1123	262
1289	High-pressure transitions of trigonal ZrMo_2O_8 . 2000 , 61, 11209-11212	31
1288	Seismic velocity decrement ratios for regions of partial melt in the lower mantle. 2000 , 27, 421-424	62
1287	Density measurements of liquid Fe-S alloys at high-pressure. 2000 , 27, 811-814	128
1286	Equation of state and strength of natural majorite. <i>Journal of Geophysical Research</i> , 2000 , 105, 5963-5971	24
1285	Topography of the transition zone seismic discontinuities. 2000 , 38, 141-158	211
1284	Decomposition of binary sulphate KHSO ₄ at high pressure. 2000 , 17, 1-11	11

1283	Structural and electronic properties of tin clathrate materials. 2001 , 64,	59
1282	Structure and energetics of stoichiometric TiO ₂ anatase surfaces. 2001 , 63,	1143
1281	Stagnant slabs in the upper and lower mantle transition region. 2001 , 39, 291-323	509
1280	Stability field and thermal equation of state of iron determined by synchrotron X-ray diffraction in a multianvil apparatus. <i>Journal of Geophysical Research</i> , 2001 , 106, 21799-21810	88
1279	Phase stability and electronic structure of the HfAl ₃ compound. 2001 , 64,	21
1278	Experimental and theoretical investigation of Mo ₂ C at high pressure. 2001 , 13, 2447-2454	33
1277	Ab initio study of the vibrational and electronic properties of CdGa ₂ S ₄ and CdGa ₂ Se ₄ under pressure. 2001 , 13, 10117-10124	17
1276	Mg-H and Be-H complexes in cubic boron nitride. 2001 , 13, 8951-8956	3
1275	Unsuccessful initial search for a midmantle chemical boundary with seismic arrays. 2001 , 28, 859-862	42
1274	Stability and equation of state of Fe ₃ C to 73 GPa: Implications for carbon in the Earth's core. 2001 , 28, 1875-1878	81
1273	Pressure-volume-temperature equation of state of MgSiO ₃ perovskite from molecular dynamics and constraints on lower mantle composition. <i>Journal of Geophysical Research</i> , 2001 , 106, 8615-8627	16
1272	High-pressure elastic properties of major materials of Earth's mantle from first principles. 2001 , 39, 507-534	199
1271	Eclogites and their geodynamic interpretation: a history. 2001 , 32, 165-203	50
1270	Phase stability and electronic structure in ZrAl ₃ compound. 2001 , 319, 154-161	44
1269	Solubility of silicon in liquid metal at high pressure: implications for the composition of the Earth's core. 2001 , 184, 367-376	90
1268	Phase relation and physical properties of an Al-depleted komatiite to 23 GPa. 2001 , 190, 65-77	28
1267	Poisson's ratio of eclogite: the role of retrogression. 2001 , 192, 523-531	29
1266	Sulfur in the Earth's inner core. 2001 , 193, 509-514	104

1265	Finite strain, thermodynamics and the earth's core. 2001 , 128, 179-193	36
1264	Static simulation of bulk and selected surfaces of anatase TiO ₂ . 2001 , 490, 116-124	106
1263	Thermal equation of state of tantalum. 2001 , 63,	76
1262	Theoretical study of the ordered-vacancy semiconducting compound CdAl ₂ Se ₄ . 2001 , 13, 1669-1684	22
1261	Non-adiabaticity in mantle convection. 2001 , 28, 879-882	53
1260	Numerical Modelling of Wave Velocity Structure of Subduction Zones. 2001 , 44, 187-195	4
1259	Mineral phases of the Earth's mantle. 2001 , 216, 248-271	35
1258	5. High-pressure surface science. 2001 , 38, 355-445	8
1257	A reflector at 200 km depth beneath the northwest Pacific. 2001 , 147, 12-28	36
1256	A simple model for assessing the high pressure melting of metals: nickel, aluminum and platinum. 2001 , 293, 408-416	37
1255	MgH and BeH complexes in c-BN. 2001 , 308-310, 1027-1030	2
1254	Ab initio search of carbon nitrides, isoelectronic with diamond, likely to lead to new ultra hard materials. 2001 , 4, 255-272	5
1253	An Isothermal Equation of State of Solid. 2001 , 226, 125-132	11
1252	Hydrogen in the Deep Earth. 2001 , 29, 365-418	192
1251	Inner-Core Anisotropy and Rotation. 2001 , 29, 47-69	77
1250	Equation of state of rare-gas crystals near their metallization. 2001 , 43, 1345-1352	10
1249	The Composition of the Earth. 2001 , 76, 3-23	15
1248	Absence of lattice strain anomalies at the electronic topological transition in zinc at high pressure. 2001 , 63,	49

1247	Bonding and physical properties of Hume-Rothery compounds with the PtHg ₄ structure. 2001 , 63,	24
1246	Ab initio simulation of first-order amorphous-to-amorphous phase transition of silicon. 2001 , 64,	73
1245	Ab initio simulation of ammonia monohydrate (NH ₃ ·H ₂ O) and ammonium hydroxide (NH ₄ OH). 2001 , 115, 7006-7014	41
1244	First-order pressure-induced polyamorphism in germanium. 2002 , 66,	39
1243	Quantum-mechanical simulation of MgAl ₂ O ₄ under high pressure. 2002 , 66,	37
1242	The innermost inner core of the earth: evidence for a change in anisotropic behavior at the radius of about 300 km. 2002 , 99, 14026-30	119
1241	Structural changes in tetracyanoethylene at high pressures: neutron diffraction study. 2002 , 14, 759-768	7
1240	First-principles energy and stress fields in defected materials. 2002 , 14, 5497-5516	8
1239	Phase stability and pressure-induced semiconductor to metal transition in crystalline GeSe ₂ . 2002 , 14, 9589-9600	8
1238	56 The Earth's core. 2002 , 925-933	1
1237	Physical properties of liquid Fe alloys at high pressure and their bearings on the nature of metallic planetary cores. <i>Journal of Geophysical Research</i> , 2002 , 107, ECV 4-1-ECV 4-9	57
1236	Iron-Nickel alloy in the Earth's core. 2002 , 29, 109-1-109-3	47
1235	Thermodynamical functions for crystals with large unit cells such as zircon, coffinite, fluorapatite, and iodoapatite from ab initio calculations. 2002 , 65,	29
1234	Lattice dynamics of solid xenon under pressure. 2002 , 88, 075504	34
1233	A new constant-pressure molecular dynamics method for finite systems. 2002 , 14, L487-L493	24
1232	Metal-troilite-magnetite assemblage in shock veins of Sixiangkou meteorite. 2002 , 66, 3143-3149	17
1231	Bullen's parameter η a link between seismology and geodynamical modelling. 2002 , 198, 471-483	13
1230	Another look at the core density deficit of Earth's outer core. 2002 , 131, 19-27	111

1229	Phase transition and compressibility of LaF ₃ under pressures up to 40 GPa. 2002 , 335, 59-61	23
1228	Atomistic simulations of solid-state materials based on crystal-chemical potential concepts: applications for compounds, metals, alloys, and chemical reactions. 2002 , 338, 142-152	11
1227	Ab initio calculation of the formation energies of L1 ₂ , D0 ₂₂ , D0 ₂₃ and one dimensional long period structures in TiAl ₃ compound. 2002 , 10, 751-764	42
1226	Pressure and Temperature Dependence of the Ferroelectric-Paraelectric Phase Transition in PbTiO ₃ . 2002 , 167, 446-452	27
1225	Possible ultra-hard materials based upon boron icosahedra. 2002 , 322, 173-178	25
1224	Analysis of equations of state for solids under high compressions. 2002 , 322, 328-339	33
1223	Relative stability of cubic and different hexagonal forms of boron nitride. 2002 , 63, 363-368	52
1222	An equation of state for molybdenum and tungsten. 2003 , 339, 193-197	10
1221	Tin-magnesium substitution in Ir ₃ Sn ₇ structure and chemical bonding in Mg _x Ir ₃ Sn _{7-x} (x=0-1.67). 2003 , 173, 418-424	27
1220	Stability of the body-centred-cubic phase of iron in the Earth's inner core. 2003 , 424, 1032-4	182
1219	Applicability of three-parameter equation of state of solids: compatibility with first principles approaches and application to solids. 2003 , 15, 1643-1663	5
1218	Potential ultrahard nitride materials containing silicon, carbon and nitrogen. 2003 , 68,	21
1217	Thermodynamics from first principles: temperature and composition of the Earth's core. 2003 , 67, 113-123	30
1216	Ab initio simulation of the ice II structure. 2003 , 119, 4567-4572	24
1215	Equation of state of liquid Fe-10 wt % S: Implications for the metallic cores of planetary bodies. <i>Journal of Geophysical Research</i> , 2003 , 108,	64
1214	The equation of state of CsCl-structured FeSi to 40 GPa: Implications for silicon in the Earth's core. 2003 , 30, 14-1-14-4	31
1213	Static compression of iron-silicon alloys: Implications for silicon in the Earth's core. <i>Journal of Geophysical Research</i> , 2003 , 108,	62
1212	Sound velocities of iron-nickel and iron-silicon alloys at high pressures. 2003 , 30,	90

1211	Understanding the complex metallic element Mn. II. Geometric frustration in Mn, phase stability, and phase transitions. 2003 , 68,	115
1210	On compressibility of osmium metal. 2003 , 23, 403-408	8
1209	Lattice dynamics and inelastic neutron scattering studies of MFX (M=Ba, Sr, Pb; X=Cl, Br, I). 2003 , 67,	30
1208	The properties of iron under core conditions from first principles calculations. 2003 , 140, 101-125	126
1207	Single-crystal elasticity of ringwoodite to high pressures and high temperatures: implications for 520 km seismic discontinuity. 2003 , 136, 41-66	98
1206	Inferring upper-mantle temperatures from seismic velocities. 2003 , 138, 197-222	411
1205	Using probabilistic seismic tomography to test mantle velocity-density relationships. 2003 , 215, 121-134	58
1204	Seismic scattering at the top of the mantle Transition Zone. 2003 , 216, 259-269	20
1203	Solidification of the Earth's core. 2003 , 105-127	9
1202	Melting of tantalum at high pressure determined by angle dispersive x-ray diffraction in a double-sided laser-heated diamond-anvil cell. 2003 , 15, 7635-7649	102
1201	Interatomic potential for vanadium suitable for radiation damage simulations. 2003 , 93, 3328-3335	61
1200	High pressure x-ray study on anthracene. 2003 , 119, 1078-1084	49
1199	Ab-initio Study of the Diffusion Coefficients in Fe-based Liquids. 2003 , 806, 155	1
1198	Compositional Model for the Earth's Core. 2003 , 547-568	220
1197	Plastic Deformation and the Role of Fault Formation in the Equation of State of Micron Size Intermetallic Alloys Under Non-Hydrostatic Pressure. 2003 , 791, 1	
1196	Quantum design and synthesis of a boron-oxygen-yttrium phase. 2003 , 82, 4286-4288	1
1195	Pressure dependence of electron-phonon coupling and superconductivity in hcp Fe: A linear response study. 2003 , 67,	32
1194	Femtosecond laser quenching of the ϵ phase of iron. 2003 , 83, 3498-3500	42

1193	Hydrogen bonding in solid ammonia from ab initio calculations. 2003 , 118, 5987-5994	44
1192	Seismological Constraints upon Mantle Composition. 2003 , 39-59	11
1191	Study of the phase transformations and equation of state of magnesium by synchrotron x-ray diffraction. 2003 , 15, 1277-1289	56
1190	Geophysics. The thermal state of Earth's core. 2003 , 299, 1675-7	109
1189	Solids, Static High-Pressure Effects in. 2003 ,	1
1188	Simple compounds. Unusual mineral occurrences. 2004 , 337-346	
1187	Preface. 2004 , xv-xvii	
1186	Figure credits. 2004 , xix-xxii	
1185	Subject and history of mineralogy. 2004 , 3-11	
1184	Elements, bonding, simple structures, and ionic radii. 2004 , 12-31	
1183	The concept of a lattice and description of crystal structures. 2004 , 32-53	
1182	Macroscopic symmetries : crystal morphology. 2004 , 54-83	
1181	Crystal growth and aggregation. 2004 , 84-101	
1180	Isomorphism, polymorphism, and crystalline defects. 2004 , 102-114	
1179	Experimental studies of crystal structures. X-ray diffraction. 2004 , 117-133	
1178	Physical properties. 2004 , 134-155	1
1177	Optical properties. 2004 , 156-180	
1176	Identification of minerals with the petrographic microscope. 2004 , 181-207	

1175 Color. **2004**, 208-216

1174 Additional analytical methods. **2004**, 217-244

1173 Mechanical properties and deformation. **2004**, 245-252

1172 Classification and names of minerals. **2004**, 255-265

1171 Mineral identification of hand specimens. **2004**, 266-275

1170 Mineral genesis. **2004**, 276-287

1169 Stability of minerals. Principles of thermodynamics. **2004**, 288-304

1168 Solid solutions. **2004**, 305-310

1167 Important information about silica materials and feldspars. **2004**, 313-336

1166 Halides. Evaporite deposits. **2004**, 347-358

1165 Carbonates and other minerals with triangular anion groups. Sedimentary origins. **2004**, 359-375

1164 Phosphates, sulfates, and related minerals. Apatite as a biogenic mineral. **2004**, 376-387

1163 Sulfides and related minerals. Hydrothermal processes. **2004**, 388-405

1162 Oxides and hydroxides. Review of ionic crystals. **2004**, 406-424

1161 Orthosilicates and ring silicates. Metamorphic mineral assemblages. **2004**, 425-447

1160 Sheet silicates. Weathering of silicate rocks. **2004**, 448-469

1159 Chain silicates. Discussion of some igneous and metamorphic processes. **2004**, 470-495

1158 Framework silicates. Zeolites and ion exchange properties of minerals. **2004**, 496-508

1157 Metalliferous mineral deposits. **2004**, 511-531

1156 Gemstones. **2004**, 532-549

1155 Cement minerals. **2004**, 550-557

1154 Minerals and human health. **2004**, 558-569

1153 Mineral composition of the solar system. **2004**, 570-585

1152 Mineral composition of the earth. **2004**, 586-598

o

1151 Appendices. **2004**, 599-617

1150 Glossary. **2004**, 618-625

1149 References. **2004**, 626-634

1148 Plate section. **2004**,

1147 Compression Behaviour and Equation of State of Zr 44.4 Nb 7 Cu 13.5 Ni 10.8 Be 24.3 Bulk Metallic Glass up to 39 GPa. **2004**, 21, 898-900

15

1146 Elasticity of cobalt at high pressure studied by inelastic x-ray scattering. **2004**, 93, 215505

51

1145 Dependence of elastic stiffness on electronic band structure of nanolaminate M₂AlC (M=Ti,V,Nb, and Cr) ceramics. **2004**, 69,

248

1144 Chapter 15 Transport properties in deep depths and related condensed-matter phenomena. **2004**, 9, 1041-1203

1143 Seismological constraints on core composition from Fe-O-S liquid immiscibility. **2004**, 306, 2239-42

69

1142 Refinement of Nanoscale Grain Structure in Bulk Titania via a Transformation-Assisted Consolidation (TAC) Method. **2004**, 83, 2163-2169

13

1141 Effects of additives in γ -Al₂O₃: an ab initio study. **2004**, 16, 8971-8980

30

1140 High-pressure X-ray diffraction study of UMn₂Ge₂. **2004**, 344, 255-259

8

1139	An isothermal equation of state for solids. 2004 , 350, 375-388	5
1138	Analysis of Suzuki, Shanker, and Kumar formulations under strong compressions. 2004 , 65, 1177-1180	6
1137	Quest for a nuclear georeactor. 2004 , 71, 769-774	4
1136	Calculation of bulk modulus for highly anisotropic materials. 2004 , 326, 442-448	23
1135	Analysis of finite-strain equations of state for solids under high pressures. 2004 , 352, 134-146	17
1134	Magnetic transition in compressed Fe ₃ C from x-ray emission spectroscopy. 2004 , 70,	54
1133	Compression of iron hydride to 80 GPa and hydrogen in the Earth's inner core. 2004 , 31, n/a-n/a	47
1132	Effect of Si on liquid Fe compressibility: Implications for sound velocity in core materials. 2004 , 31, n/a-n/a	60
1131	Ab-initio high-pressure alloying of iron and potassium: Implications for the Earth's core. 2004 , 31, n/a-n/a	25
1130	Nuclear resonant x-ray scattering of iron hydride at high pressure. 2004 , 31,	52
1129	Elastic anisotropy in textured hcp-iron to 112 GPa from sound wave propagation measurements. 2004 , 225, 243-251	104
1128	Magnetic transition and sound velocities of Fe ₃ S at high pressure: implications for Earth and planetary cores. 2004 , 226, 33-40	64
1127	High pressure and high temperature phase transitions of FeO. 2004 , 146, 273-282	46
1126	High pressure equations of state with applications to the lower mantle and core. 2004 , 142, 137-184	178
1125	Volume-temperature relationship for iron at 330 GPa and the Earth's core density deficit. 2004 , 147, 333-341	28
1124	Phase transformations of Mg ₂ NiH ₄ at high-pressure thermal treatment. 2004 , 385, 276-282	10
1123	10. Computational Materials Science with Materials Studio(^(rlap{LARGE(circ)}),hskip.5ptraise3pthbox{tinyrm R})): Applications in Catalysis. 2004 , 207-221	10
1122	Determining the possible building blocks of the Earth and Mars. 2004 , 39, 667-681	34

1121	The Earth's Core: An Approach from First Principles. 2004 , 1-12	2
1120	Theoretical study of pressure effects on fission fragment track registration lengths in apatite. 2005 , 40, 765-769	4
1119	A comparison of equations of state including the generalized Rydberg EOS. 2005 , 369, 111-116	11
1118	P/V relation for cuprous halides: Pseudopotential approach. 2005 , 136, 157-162	
1117	Structural phase transitions under pressure in rare earth triuorides compounds with tysonite structure. 2005 , 136, 538-542	21
1116	A first principles study of adhesion and adhesive transfer at Al(111)/graphite(0001). 2005 , 581, 155-168	39
1115	First-principles calculation of structural energetics of $AlTM$ (TM=Ti, Zr, Hf) intermetallics. 2005 , 53, 3225-3252	171
1114	Thermodynamics of mantle minerals - I. Physical properties. 2005 , 162, 610-632	405
1113	Thermoelastic properties of solid phases: C++ object oriented library SolidEOS 2005 , 31, 786-791	1
1112	The nonlinear elasticity and related properties of anhydrous and hydrous Mg_2SiO_4 : a theoretical study. 2005 , 32, 28-39	3
1111	A simple relationship between isothermal bulk modulus and thermal pressure for geophysical minerals. 2005 , 32, 480-484	2
1110	Quantum-thermodynamic treatment of intrinsic anharmonicity; Wallace's theorem revisited. 2005 , 32, 614-626	12
1109	A gigahertz ultrasonic interferometer for the diamond anvil cell and high-pressure elasticity of some iron-oxide minerals. 2005 , 25-48	10
1108	Sound velocities of hot dense iron: Birch's law revisited. 2005 , 308, 1892-4	133
1107	Multi-scale modeling of self-irradiation effects in plutonium alloys [Molecular dynamic simulations results. 2005 , 893, 1	2
1106	A Direct Comparison between Static and Dynamic Melting Temperature Determinations below 100 GPa. 2005 , 22, 2002-2004	4
1105	Compression Behaviour of Ni 77 P 23 Amorphous Alloy up to 30.5 GPa. 2005 , 22, 2615-2617	4
1104	Grüneisen Parameter along Hugoniot and Melting Temperature of Iron: a Result from Thermodynamic Calculations. 2005 , 22, 836-838	6

1103	Synchrotron facilities and the study of the Earth's deep interior. 2005 , 68, 1811-1859	61
1102	Compressibility of highly coordinated metal oxynitrides: LDA calculations. 2005 , 72,	16
1101	Compositional disorder and its influence on the structural, electronic, and magnetic properties of $\text{MgC}(\text{Ni}_{1-x}\text{Co}_x)_3$ alloys from first principles. 2005 , 72,	4
1100	Aggregate and single-crystalline elasticity of hcp cobalt at high pressure. 2005 , 72,	57
1099	Role of C in MgC_xNi_3 investigated from first principles. 2005 , 72,	14
1098	Isostructural phase transitions in GaNbCN and InNbCN superlattices. 2005 , 71,	20
1097	Combined local-density and dynamical mean field theory calculations for the compressed lanthanides Ce, Pr, and Nd. 2005 , 72,	49
1096	Iron-rich silicates in the Earth's D'' layer. 2005 , 102, 9751-3	92
1095	Four-parameter equation of state of solids. 2005 , 87, 194111	33
1094	Water in the Earth's mantle. 2005 , 69, 229-257	160
1093	Ab initio calculations on the effects of additives on alumina phase stability. 2005 , 71,	22
1092	Ab initio theory of planetary materials. 2005 , 220,	32
1091	Implementation of a new model for pressure dependence of condensed phases in Thermo-Calc. 2005 , 29, 49-55	50
1090	Rock dilation, nonlinear deformation, and pore pressure change under shear. 2005 , 237, 577-589	37
1089	Analysis of high pressure equations of state for hcp iron. 2005 , 149, 201-204	4
1088	Seismic velocities of granulite-facies xenoliths from Central Ireland: Implications for lower crustal composition and anisotropy. 2005 , 407, 81-99	21
1087	Analytic potential energy functions for simulating aluminum nanoparticles. 2005 , 109, 3915-20	35
1086	Direct observation of the alpha-epsilon transition in shock-compressed iron via nanosecond x-ray diffraction. 2005 , 95, 075502	233

1085	One-dimensional physical reference models for the upper mantle and transition zone: Combining seismic and mineral physics constraints. <i>Journal of Geophysical Research</i> , 2005 , 110,	45
1084	Carbon in iron phases under high pressure. 2005 , 32,	30
1083	Phase stability, phase transformations, and elastic properties of Cu ₆ Sn ₅ : Ab initio calculations and experimental results. 2005 , 20, 3102-3117	105
1082	Earth's Deep Mantle: Structure, Composition, and Evolution—An Introduction. 2005 , 1-7	1
1081	Heterogeneous Lowermost Mantle: Compositional Constraints and Seismological Observables. 2005 , 101-116	8
1080	The Role of Theoretical Mineral Physics in Modeling the Earth's Interior. 2005 , 137-163	
1079	Self-Gravity, Self-Consistency, and Self-Organization in Geodynamics and Geochemistry. 2005 , 165-186	7
1078	Thermochemical State of the Lower Mantle: New Insights from Mineral Physics. 2005 , 241-260	12
1077	Synthetic Tomographic Images of Slabs from Mineral Physics. 2005 , 283-300	32
1076	High pressure equations of state and planetary interiors. 2005 , 68, 341-383	129
1075	Electronic structure and properties of isorecticular metal-organic frameworks: the case of M-IRMOF1 (M = Zn, Cd, Be, Mg, and Ca). 2005 , 123, 124713	132
1074	chapter 4 Magnetic and Electrical Properties of Practical Antiferromagnetic Mn Alloys. 2006 , 16, 209-401	7
1073	Structural properties of hexagonal boron nitride. 2006 , 14, 515-535	62
1072	High-pressure x-ray diffraction study of the giant dielectric constant material CaCu ₃ Ti ₄ O ₁₂ : Evidence of stiff grain surface. 2006 , 88, 191903	10
1071	A first-principles comparison of the electronic properties of Mg ₂ CuNi ₃ and Zn ₂ CuNi ₃ alloys. 2006 , 18, 5333-5347	9
1070	Simulated structural and thermal properties of glassy and liquid germania. 2006 , 73, 031504	67
1069	Accretion of the Earth and segregation of its core. 2006 , 441, 825-33	323
1068	High-pressure alloying of iron and xenon: Missing Xe in the Earth's core?. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a	22

1067	Native nickel in the TAG hydrothermal field sediments (Mid-Atlantic Ridge, 26°N): Space trotter, guest from mantle, or a widespread mineral, connected with serpentinization?. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a	13
1066	Thermal equation of state of Fe ₃ S and implications for sulfur in Earth's core. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a	53
1065	Molecular dynamics study of liquid iron under high pressure and high temperature. 2006 , 73,	42
1064	Laser ablation condensation of polymorphic ZrO ₂ nanoparticles: Effects of laser parameters, residual stress, and kinetic phase change. 2006 , 99, 054302	14
1063	Density functional theory study of the brookite surfaces and phase transitions between natural titania polymorphs. 2006 , 110, 23417-23	103
1062	Stability of the body-centered-tetragonal phase of Fe at high pressure: Ground-state energies, phonon spectra, and molecular dynamics simulations. 2006 , 74,	20
1061	Oscillating and stagnating plumes in the Earth's lower mantle. 2006 , 248, 90-105	37
1060	An ab initio study of nickel substitution into iron. 2006 , 248, 147-152	17
1059	The calculation of ternary miscibility gaps using the linear contributions method: Problems, benchmark systems and an application to (K, Li, Na)Br. 2006 , 30, 185-190	3
1058	Valence behaviour of ytterbium in YbNiGa ₄ . 2006 , 416, 35-42	14
1057	The structure of amorphous, crystalline and liquid GeO ₂ . 2006 , 18, R753-R784	173
1056	Phase relations of FeNi alloys at high pressure and temperature. 2006 , 155, 146-151	44
1055	Ersine Williamson, extreme conditions, and the birth of mineral physics. 2006 , 59, 50-56	10
1054	Interatomic potential and elastic constants of rare-gas crystals under pressure. 2006 , 243, 2672-2686	18
1053	Coupled normal-mode sensitivity to inner-core shear velocity and attenuation. 2006 , 167, 204-212	27
1052	Phase stability and cohesive properties of TiZn intermetallics: First-principles calculations and experimental results. 2006 , 54, 4977-4997	83
1051	Non-linear finite element constitutive modeling of mechanical properties of hard and superhard materials studied by indentation. 2006 , 422, 205-217	17
1050	Internal structure of massive terrestrial planets. 2006 , 181, 545-554	370

1049	Crystal structure and high-pressure properties of FeMo_2N determined by neutron powder diffraction and X-ray diffraction. 2006 , 179, 1762-1767	53
1048	Lattice dynamics and electrical properties of wurtzite ZnO determined by a density functional theory method. 2006 , 287, 199-203	33
1047	Equation of state for group IV-IV semiconductors. 2006 , 139, 132-137	1
1046	Distributions of density and elastic parameters in the Earth. 2006 , 42, 608-620	5
1045	Structural transformations of minerals in deep geospheres: A review. 2006 , 51, 767-777	13
1044	Equations of state of CaSiO_3 Perovskite: a molecular dynamics study. 2006 , 33, 126-137	9
1043	First Principles Study of the Aluminum-Cubic Boron Nitride Interface. 2006 , 82, 779-803	4
1042	Applicability of isothermal unrealistic two-parameter equations of state for solids. 2006 , 18, 10481-508	6
1041	Electronic structure of the $\text{Na}_{16}\text{Rb}_8\text{Si}_{136}$ and $\text{K}_{16}\text{Rb}_8\text{Si}_{136}$ clathrates. 2006 , 74,	16
1040	First-principles electronic structure study of Sc-II. 2006 , 74,	18
1039	Overview. 2007 , 1-29	4
1038	Theory and Practice Techniques for Measuring High P/T Elasticity. 2007 , 269-291	2
1037	Overview Mineral Physics: Past, Present, and Future. 2007 , 1-6	
1036	Mineralogy of the Earth Phase Transitions and Mineralogy of the Lower Mantle. 2007 , 33-62	20
1035	Theory and Practice Diamond-Anvil Cells and Probes for High P/T Mineral Physics Studies. 2007 , 231-267	12
1034	Seismic Anisotropy of the Deep Earth from a Mineral and Rock Physics Perspective. 2007 , 437-491	63
1033	Theory and Practice: Diamond-Anvil Cells and Probes for High-P/T Mineral Physics Studies. 2007 , 263-291	3
1032	Deep Earth Structure Transition Zone and Mantle Discontinuities. 2007 , 591-618	3

1031	Deep Earth Structure I The Earth's Cores. 2007 , 655-693	23
1030	Formation of Earth's Core. 2007 , 51-90	27
1029	Compressibility of Nickel Nanoparticle Chain. 2007 , 24, 1671-1673	
1028	Density-functional investigation of Na ₁₆ A ₈ Ge ₁₃₆ (A = Rb,Cs) clathrates. 2007 , 19, 466206	5
1027	Electronic and vibrational properties of framework-substituted type-II silicon clathrates. 2007 , 75,	38
1026	Stability analysis of a bulk material built from silicon cage clusters: A first-principles approach. 2007 , 76,	25
1025	Geophysical applications of nuclear resonant spectroscopy. 2007 ,	22
1024	Overview. 2007 , 1-30	8
1023	Physics of Mantle Convection. 2007 , 31-87	16
1022	Origin of the low rigidity of the Earth's inner core. 2007 , 316, 1603-5	56
1021	Theory and Practice I Lattice Vibrations and Spectroscopy of Mantle Phases. 2007 , 153-196	1
1020	Potassium partitioning into molten iron alloys at high-pressure: Implications for Earth's core. 2007 , 160, 22-33	40
1019	Ab initio calculations of the elasticity of iron and iron alloys at inner core conditions: Evidence for a partially molten inner core?. 2007 , 254, 227-232	106
1018	Effect of light elements on the sound velocities in solid iron: Implications for the composition of Earth's core. 2007 , 254, 233-238	193
1017	Partitioning of FeO between magnesiowüstite and liquid iron at high pressures and temperatures: Implications for the composition of the Earth's outer core. 2007 , 257, 435-449	67
1016	Placing constraints on phase equilibria and thermophysical properties in the system MgO-SiO ₂ by a thermodynamically consistent vibrational method. 2007 , 71, 3630-3655	31
1015	Introduction of pressure in binary phase diagram calculations. Application to the Ag-Cu system. 2007 , 31, 380-389	16
1014	Four-parameter equation of state and determination of the thermal and mechanical properties of metals. 2007 , 431, 23-31	11

1013	Crust and Lithospheric Structure [Global Crustal Structure. 2007 , 361-417	9
1012	Characterization of the high-pressure structures and phase transformations in SnO ₂ . A density functional theory study. 2007 , 111, 6479-85	65
1011	Pure iron compressed and heated to extreme conditions. 2007 , 99, 165505	71
1010	Thermodynamic Properties and Stability Field of MgSiO ₃ Post-Perovskite. 2007 , 79-97	1
1009	Anomalous compression behavior in lanthanum/cerium-based metallic glass under high pressure. 2007 , 104, 13565-8	80
1008	High-pressure studies of cyclohexane to 40 GPa. 2007 , 111, 4103-8	30
1007	Equation of state and high-pressure stability of Fe ₃ P-schreibersite: Implications for phosphorus storage in planetary cores. 2007 , 34,	32
1006	A mineralogical model for density and elasticity of the Earth's mantle. 2007 , 8, n/a-n/a	40
1005	Sulfur and phosphorus in the Earth's core: The Fe-P-S system at 23 GPa. 2007 , 34, n/a-n/a	37
1004	Theory and Practice [Multianvil Cells and High-Pressure Experimental Methods. 2007 , 197-230	39
1003	Inner-Core Dynamics. 2007 , 299-318	11
1002	Review of Experimental Studies on Mantle Phase Transitions. 2007 , 9-18	
1001	Experimental Constraints on Core Composition. 2007 , 1-31	11
1000	Gismondine under HP: Deformation mechanism and re-organization of the extra-framework species. 2007 , 103, 190-209	35
999	Study of pressure-volume relationships and higher derivatives of bulk modulus based on generalized equations of state. 2007 , 388, 20-25	20
998	Erratum to "Non-linear finite element constitutive modeling of mechanical properties of hard and superhard materials studied by indentation" [Mater. Sci. Eng. A 422 (2006) 205-17]. 2007 , 448, 366-378	19
997	Crustal Drift in Iceland. 2007 , 8, 285-300	137
996	Role of Phase Transitions in a Dynamic Mantle. 2007 , 42, 705-735	286

995	Molecular dynamics calculation of liquid iron properties and adiabatic temperature gradient in the Earth's outer core. 2007 , 168, 890-894	26
994	Adiabatic-reduced isotherms at 100 GPa pressures. 2007 , 27, 393-407	8
993	Simulated Equations of State of ZnO with Rocksalt Phase at High Temperature and High Pressure. 2007 , 20, 161-166	4
992	Ab-initio simulation of elastic constants for some ceramic materials. 2007 , 58, 127-133	78
991	Measurements of sound velocity of laser-irradiated iron foils relevant to Earth core condition. 2007 , 44, 301-305	8
990	Pressure induced phase transformation in U ₂ O(PO ₄) ₂ . 2008 , 181, 1240-1248	4
989	The effect of sulfur content on density of the liquid FeS at high pressure. 2008 , 35, 417-423	37
988	HP-Ca ₂ Si ₅ N ₈ —a new high-pressure nitridosilicate: synthesis, structure, luminescence, and DFT calculations. 2008 , 14, 7892-902	31
987	Amorphization and structural evolution of - and its high density polymorph - at high pressures. 2008 , 69, 35-40	4
986	Equation of state of hexagonal boron nitride. 2008 , 148, 390-394	23
985	On the compatibility of the generalized logarithmic and Rydberg equations of state. 2008 , 148, 501-503	2
984	Computer simulation study of defect formation and migration energy in calcium fluoride. 2008 , 266, 2698-2701	6
983	High pressure deformation mechanism of Li-ABW: Synchrotron XRPD study and ab initio molecular dynamics simulations. 2008 , 115, 267-280	29
982	Geophysics: slab sliding away. 2008 , 451, 899-900	
981	Viscous heating, adiabatic heating and energetic consistency in compressible mantle convection. 2008 , 173, 693-702	39
980	Magneto-elastic effects in compressed cobalt from first-principles. 2008 , 77,	20
979	Experimental determination of the elasticity of iron at high pressure. <i>Journal of Geophysical Research</i> , 2008 , 113,	34
978	Inversion of seismic and geodetic data for the major element chemistry and temperature of the Earth's mantle. <i>Journal of Geophysical Research</i> , 2008 , 113,	33

977	Experimental constraints on the temperature profile in the lower mantle. 2008 , 170, 267-273	39
976	On the statistical distribution of seismic velocities in Earth's deep mantle. 2008 , 265, 423-437	93
975	Ab-initio study of the effects of pressure and chemistry on the electron-capture radioactive decay constants of ^7Be , ^{22}Na and ^{40}K . 2008 , 267, 628-636	15
974	Effect of Ni on Fe-S phase relations at high pressure and high temperature. 2008 , 268, 212-218	22
973	High-pressure phase transformations of FeS: Novel phases at conditions of planetary cores. 2008 , 272, 481-487	46
972	Phase transformations in Mg_2SiO_4 in Earth's transition zone. 2008 , 273, 115-122	55
971	Thermodynamics, structure, dynamics, and freezing of Mg_2SiO_4 liquid at high pressure. 2008 , 72, 1427-1441	110
970	Mg_2SiO_4 liquid under high pressure from molecular dynamics. 2008 , 256, 185-192	45
969	Phase relations of Fe-Si alloy up to core conditions: Implications for the Earth inner core. 2008 , 35, n/a-n/a	35
968	In situ structural investigation of Fe-S-Si immiscible liquid system and evolution of Fe-S bond properties with pressure. <i>Journal of Geophysical Research</i> , 2008 , 113,	27
967	Ab initio equation of state for the body-centered-cubic phase of iron at high pressure and temperature. 2008 , 78,	31
966	Investigation of the phase stability of LuVO_4 at high pressure using powder x-ray diffraction measurements and lattice dynamical calculations. 2008 , 20, 075223	43
965	An ab initio study of S-substituted iron-Nickel-Silicon alloy at the Earth's inner core pressure. 2008 , 28, 437-441	3
964	Equation of state of liquid Fe-7 wt%Si to 12 GPa. 2008 , 28, 19-28	21
963	First principles calculations of the structural, electronic and vibrational properties of the clathrates $\text{Ba}_8\text{Al}_{16}\text{Ge}_{30}$ and $\text{Ba}_8\text{Al}_{16}\text{Si}_{30}$. 2008 , 20, 415214	14
962	Linear response results for phonons and electron-phonon coupling in hexagonal close packed Sc-spin fluctuations, and implications for superconductivity. 2008 , 20, 045209	5
961	Binding-energy relations and equations of state for the 4d and 5d transition metals. 2008 , 78,	17
960	Elastic anisotropy of Earth's inner core. 2008 , 319, 797-800	68

959	Sixfold-coordinated amorphous polymorph of SiO ₂ under high pressure. 2008 , 101, 255502	145
958	Phase transformation of iron under shock compression: Effects of voids and shear stress. 2008 , 78,	28
957	First-principles calculations of the vibrational and thermal properties of the type-I clathrates Ba ₈ Ga ₁₆ Si ₆ Ge ₃₀ and Sr ₈ Ga ₁₆ Si ₆ Ge ₃₀ . 2008 , 78,	18
956	Neutron powder diffraction studies of sulfuric acid hydrates. II. The structure, thermal expansion, incompressibility, and polymorphism of sulfuric acid tetrahydrate (D ₂ SO ₄ .4D ₂ O). 2008 , 128, 054506	14
955	High-pressure behavior of TiO ₂ as determined by experiment and theory. 2009 , 79,	73
954	Instability of the body-centered tetragonal phase of iron under extreme conditions. 2009 , 79,	6
953	Correlation effects in the total energy, the bulk modulus, and the lattice constant of a transition metal: Combined local-density approximation and dynamical mean-field theory applied to Ni and Mn. 2009 , 79,	72
952	Atomistic simulation of a NiZr model metallic glass under hydrostatic pressure. 2009 , 94, 051901	11
951	Equation of state and phase transition of deuterated ammonia monohydrate (ND ₃ .D ₂ O) measured by high-resolution neutron powder diffraction up to 500 MPa. 2009 , 131, 154503	11
950	High-pressure synthesis and characterization of the alkaline earth borate BaB_4O_7 . 2009 , 11, 336-342	17
949	Effect of temperature and pressure on the thermal conductivity of sandstone. 2009 , 46, 1055-1071	134
948	Existence of longitudinal waves in pre-stressed anisotropic elastic medium. 2009 , 118, 677-687	1
947	Experimental study of reaction between perovskite and molten iron to 146 GPa and implications for chemically distinct buoyant layer at the top of the core. 2009 , 36, 355-363	37
946	Phase relations of iron-silicon alloys at high pressure and high temperature. 2009 , 36, 511-518	36
945	Finite Amplitude Convection Through a Phase Boundary. 2009 , 35, 265-276	94
944	Influence of liquid core dynamics on rotational modes. 2009 , 176, 368-388	27
943	Self-consistent thermodynamic description of silicate liquids, with application to shock melting of MgO periclase and MgSiO ₃ perovskite. 2009 , 178, 162-179	118
942	Non-linear damage rheology and wave resonance in rocks. 2009 , 178, 910-920	44

941	Generalized pressure-volume equations mimicking the Stacey reciprocal K-primed equation of state. 2009 , 404, 251-254	6
940	Extreme compression behaviour of equations of state. 2009 , 404, 4083-4085	27
939	X-ray magnetic circular dichroism in iron chalcogenides Fe $1-x$ S: First-principles calculations. 2009 , 106, 123907	8
938	Characterization of the TiSiO ₄ structure and its pressure-induced phase transformations: Density functional theory study. 2009 , 80,	40
937	Pressure-volume equation of state of FeAu and FePt. 2009 , 29, 800-805	3
936	Melting in the Fe-Ti system to 70 GPa. 2009 , 284, 157-167	190
935	Laboratory measurements of P-wave and S-wave velocities across a surface analog of the continental crust-mantle boundary: Cabo Ortegal, Spain. 2009 , 285, 27-38	24
934	X-ray absorption contrast images of binary chemical reactions. 2009 , 260, 211-220	5
933	Melting of the Indarch meteorite (EH4 chondrite) at 1 GPa and variable oxygen fugacity: Implications for early planetary differentiation processes. 2009 , 73, 6402-6420	53
932	High-pressure melting relations in Fe-Ti systems: Implications for formation, evolution, and structure of metallic cores in planetary bodies. 2009 , 73, 6678-6691	96
931	Carbon in the core revisited. 2009 , 174, 202-211	108
930	Sound velocity in iron carbide (Fe ₃ C) at high pressure: Implications for the carbon content of the Earth's inner core. 2009 , 172, 125-129	61
929	Ab initio predictions of potassium partitioning between Fe and Al-bearing MgSiO ₃ perovskite and post-perovskite. 2009 , 174, 247-253	7
928	Density profiles of oceanic slabs and surrounding mantle: Integrated thermodynamic and thermal modeling, and implications for the fate of slabs at the 660km discontinuity. 2009 , 172, 257-267	72
927	Molecular dynamics simulations of hcp/fcc nucleation and growth in bcc iron driven by uniaxial compression. 2009 , 21, 495702	16
926	Dynamic properties of structural transition in iron under uniaxial compression. 2009 , 21, 245703	14
925	Structural study of FeP ₂ at high pressure. 2009 , 29, 235-244	14
924	High-pressure behavior of perovskite: FeTiO ₃ dissociation into (Fe _{1-δ},Ti_{δ})O and Fe_{1+δ}Ti_{2-δ}O₅. 2009, 103, 065503}	19

923	A CALPHAD Helmholtz energy approach to calculate thermodynamic and thermophysical properties of fcc Cu. 2009 , 89, 2167-2194	21
922	A density functional study of the high-pressure chemistry of MSiN(2)(M = Be, Mg, Ca): prediction of high-pressure phases and examination of pressure-induced decomposition. 2009 , 21, 275407	12
921	4.2.3.2 Planetary interiors. 2009 , 253-281	1
920	Thermochemical interpretation of 1-D seismic data for the lower mantle: The significance of nonadiabatic thermal gradients and compositional heterogeneity. <i>Journal of Geophysical Research</i> , 2009 , 114,	51
919	Phase relations of Fe-Si alloy in Earth's core. 2009 , 36,	27
918	Constraints on thermal state and composition of the Earth's lower mantle from electromagnetic impedances and seismic data. <i>Journal of Geophysical Research</i> , 2009 , 114,	27
917	Structure and behavior of the barringerite Ni end-member, Ni ₂ P, at deep Earth conditions and implications for natural Fe-Ni phosphides in planetary cores. <i>Journal of Geophysical Research</i> , 2009 , 114,	14
916	Equation of state and pressure-induced structural changes in mirabilite (Na ₂ SO ₄ ·10H ₂ O) determined from ab initio density functional theory calculations. 2010 , 37, 265-282	13
915	Melting of iron-silicon alloy up to the core-mantle boundary pressure: implications to the thermal structure of the Earth's core. 2010 , 37, 353-359	38
914	Thermodynamic properties and equation of state of fcc aluminum and bcc iron, derived from a lattice vibrational method. 2010 , 37, 721-739	41
913	Pressure and temperature dependences of elastic properties of grossular garnet up to 17 GPa and 1 650 K. 2010 , 21, 782-791	29
912	Phenakite-type BeP ₂ N ₄ --a possible precursor for a new hard spinel-type material. 2010 , 16, 7208-14	32
911	The carbon nonstoichiometry and the lattice parameter of (Ti _{1-x} W _x)C _{1-y} . 2010 , 30, 1519-1526	28
910	Stability of Ferromagnetism in Fe, Co, and Ni Metals under High Pressure with GGA and GGA+U. 2010 , 322, 653-657	34
909	Effect of pressure on nanomaterials. 2010 , 405, 2820-2826	19
908	New developments of the CARTE thermochemical code: Calculation of detonation properties of high explosives. 2010 , 494, 306-311	21
907	Dislocation-mediated melting of iron and the temperature of the Earth's core. 2010 , 85, 315-328	30
906	A community benchmark for 2-D Cartesian compressible convection in the Earth's mantle. 2010 , 180, 73-87	78

905	The compressional and compositional stratifications in Maxwell earth models: the gravitational overturning and the long-period tangential flux. 2010 , 180, 475-500	29
904	Outer-core compositional stratification from observed core wave speed profiles. 2010 , 468, 807-10	130
903	Theory of the insulator ground state of the plutonium monochalcogenides: An LDA+DMFT investigation. 2010 , 9, 012086	
902	Pressure Determination by Simultaneous Ultrasonic and in situ X-ray Measurement at High Pressures and High Temperatures: MgO as an Example. 2010 , 20, 262-268	1
901	Microscopic dynamics of structural transition in iron with a nanovoid under shock loading. 2010 , 22, 355403	8
900	Calibration of a diamond capsule cell assembly for in situ determination of liquid properties in the ParisEdinburgh press. 2010 , 30, 332-341	13
899	Equation of state and topological transitions in amorphous solids under hydrostatic compression. 2010 , 108, 113510	11
898	Ab initio calculations of pressure-induced structural phase transitions of GeTe. 2010 , 82,	24
897	Phase relations and hardness trends of ZrO ₂ phases at high pressure. 2010 , 81,	52
896	Unusual compression behavior of TiO ₂ polymorphs from first principles. 2010 , 82,	27
895	Hemispherical anisotropic patterns of the Earth's inner core. 2010 , 107, 9507-12	34
894	Nucleation of hcp and fcc phases in bcc iron under uniform compression: classical molecular dynamics simulations. 2010 , 22, 435404	15
893	Pressure-induced spin-state transition in BiCoO ₃ . 2010 , 132, 9438-43	136
892	Thermodynamics of the Earth. 2010 , 73, 046801	9
891	Role of iron-spin transition in ferropericlase on seismic interpretation: A broad thermochemical transition in the mid mantle?. 2010 , 37, n/a-n/a	31
890	Partitioning of oxygen between the Earth's mantle and core. <i>Journal of Geophysical Research</i> , 2010 , 115,	77
889	Density measurement of Fe ₃ C liquid using X-ray absorption image up to 10 GPa and effect of light elements on compressibility of liquid iron. <i>Journal of Geophysical Research</i> , 2010 , 115,	33
888	Pressure-volume-temperature equation of state of tungsten carbide to 32 GPa and 1673 K. 2010 , 108, 053513	41

887	Compression of FeSi, Fe ₃ C, Fe _{0.95} O, and FeS under the core pressures and implication for light element in the Earth's core. <i>Journal of Geophysical Research</i> , 2010 , 115,	96
886	Structure, thermodynamics, and diffusion in CaAl ₂ Si ₂ O ₈ liquid from first-principles molecular dynamics. 2010 , 74, 5657-5671	51
885	Pressure-temperature cartography of Fe ₈₅ Si immiscible system. 2010 , 74, 3659-3667	51
884	Silicon isotopes in the inner Solar System: Implications for core formation, solar nebular processes and partial melting. 2010 , 74, 6921-6933	57
883	Surface subsidence caused by mantle plumes and volcanic loading in large igneous provinces. 2010 , 291, 207-214	42
882	Composition of the Earth's inner core from high-pressure sound velocity measurements in Fe ₈₀ Ni ₂₀ alloys. 2010 , 295, 292-296	109
881	Structure behavior and equation of state (EOS) of Ni ₂ P and (Fe _{1-x} Ni _x) ₂ P (allabogdanite) from First-principles calculations. 2010 , 295, 578-582	3
880	Constraints on viscous dissipation of plate bending from compressible mantle convection. 2010 , 297, 154-164	17
879	Effects of a radially varying electrical conductivity on 3D numerical dynamos. 2010 , 181, 42-53	18
878	P-V-T relation of MgO derived by simultaneous elastic wave velocity and in situ X-ray measurements: A new pressure scale for the mantle transition region. 2010 , 183, 196-211	91
877	The identity and quantity of the light matter on each side of the Earth's inner core boundary. 2010 , 181, 132-140	4
876	Magnetic transition of iron carbide at high pressures. 2010 , 180, 1-6	48
875	Percy W. Bridgman's second century. 2010 , 30, 581-619	37
874	Optical properties of the high-pressure phases of SnO(2): first-principles calculation. 2010 , 114, 1052-9	36
873	Bulk materials made of silicon cage clusters doped with Ti, Zr, or Hf. 2010 , 22, 035501	15
872	Phase diagram up to 105 GPa and mechanical strength of HfO ₂ . 2010 , 82,	45
871	Electronic and crystallographic structure, hard x-ray photoemission, and mechanical and transport properties of the half-metallic Heusler compound Co ₂ MnGe. 2011 , 84,	45
870	Stability field of the hcp-structure for Fe, Fe-Ni, and Fe-Ni-Si alloys up to 3 Mbar. 2011 , 38,	49

869	Earth science: probing the core's light elements. 2011 , 479, 480-1	7
868	High pressure structural stability of BaLiF ₃ . 2011 , 110, 123505	18
867	A Theoretical Study on the Pressure-Induced Phase Transitions in the Inverse Spinel Structure Zn ₂ SnO ₄ . 2011 , 115, 7740-7746	28
866	First-principle calculations of the bulk properties of 4d transition metal carbides and nitrides in the rocksalt, zincblende and wurtzite structures. 2011 , 20, 157-164	53
865	The effect of Si on metal-silicate partitioning of siderophile elements and implications for the conditions of core formation. 2011 , 75, 673-690	60
864	The Fe-rich liquidus in the Fe-FeS system from 1bar to 10GPa. 2011 , 75, 2072-2087	62
863	Equation of state and phase diagram of FeO. 2011 , 304, 496-502	89
862	X-ray diffraction and Mössbauer spectroscopy study of fcc iron hydride FeH at high pressures and implications for the composition of the Earth's core. 2011 , 307, 409-414	57
861	Static compression of Fe _{0.83} Ni _{0.09} Si _{0.08} alloy to 374GPa and Fe _{0.93} Si _{0.07} alloy to 252GPa: Implications for the Earth's inner core. 2011 , 310, 113-118	23
860	Oxygen and silicon contents of Earth's core from high pressure metal-silicate partitioning experiments. 2011 , 310, 409-421	74
859	In situ high-pressure study of FeP: Implications for planetary cores. 2011 , 184, 154-159	23
858	The effects of nickel and sulphur on the core-mantle partitioning of oxygen in Earth and Mars. 2011 , 185, 1-12	18
857	Electrons in Semiconductors: Empirical and ab initio Pseudopotential Theories. 2011 , 1-41	3
856	An ab initio molecular dynamics study of iron phases at high pressure and temperature. 2011 , 23, 485402	17
855	The deep interior of Venus, Mars, and the Earth: A brief review and the need for planetary surface-based measurements. 2011 , 59, 1048-1061	27
854	Interior structure models of solid exoplanets using material laws in the infinite pressure limit. 2011 , 214, 366-376	101
853	Mechanical properties of hybrid inorganic-organic framework materials: establishing fundamental structure-property relationships. 2011 , 40, 1059-80	533
852	Pressure-induced collapse of ferromagnetism in cobalt up to 120 GPa as seen via x-ray magnetic circular dichroism. 2011 , 84,	28

851	Magnetic ordering in digital alloys of group-IV semiconductors with 3d-transition metals. 2011 , 112, 625-636	8
850	Thermal annealing of shear bands in deformed metallic glasses: Recovery mechanisms in Cu ₆₄ Zr ₃₆ studied by molecular dynamics simulations. 2011 , 59, 7082-7094	29
849	A Large Strain Isotropic Elasticity Model Based on Molecular Dynamics Simulations of a Metallic Glass. 2011 , 104, 281-302	7
848	Phase relations in Fe-Ni-C system at high pressures and temperatures. 2011 , 38, 203-214	11
847	Density measurements of liquid Fe-Bi alloys at high pressure using the sink-float method. 2011 , 38, 801-807	22
846	Inverted equations of state for solids under high pressures. 2011 , 85, 1341-1366	10
845	Mantle dynamics of the reactivating North China Craton: Constraints from the topographies of the 410-km and 660-km discontinuities. 2011 , 54, 881-887	35
844	Compressibility of gas hydrates. 2011 , 12, 2476-84	31
843	Does the Al substitution in CsBi(l) change its mechanical property?. 2011 , 41, 102-106	45
842	X-ray diffraction measurement and equation of state for piezoelectric Pb(Zr _{1-x} Ti _x)O ₃ (x = 0.10.8) under static compression. 2011 , 11, 1024-1030	4
841	Polymorph selection during the crystallization of iron under the conditions of Earth's inner core. 2011 , 511, 57-61	11
840	Analysis of K-prime equations of state. 2011 , 406, 2488-2491	2
839	Uranium at high pressure from first principles. 2011 , 406, 3342-3347	22
838	Volume and structural study of Fe ₆₄ Mn ₃₆ anti-ferromagnetic Invar alloy under high pressure. 2011 , 323, 838-841	3
837	Calculation of thermodynamic properties of Ni nanoclusters via selected equations of state based on molecular dynamics simulations. 2011 , 151, 965-970	25
836	Compression behavior of densified SiO ₂ glass. 2011 , 84,	49
835	Equation of state for the low-pressure crystalline phase of SnI ₄ . 2011 , 84,	12
834	Ab initio study of the electronic, mechanical, and vibrational properties of different Al ₂ Si ₂ Sr crystalline phases. 2011 , 83,	4

833	Relationship between phonons and thermal expansion in Zn(CN) ₂ and Ni(CN) ₂ from inelastic neutron scattering and ab initio calculations. 2011 , 83,	45
832	Structural transformation in LaGa ₂ under high pressure. 2011 , 91, 103-109	1
831	Pressure-induced amorphization in mayenite (12CaO·7Al ₂ O ₃). 2011 , 135, 094506	9
830	Phase transition of FeO and stratification in Earth's outer core. 2011 , 334, 792-4	47
829	In situ high-pressure X-ray diffraction experiments and ab initio calculations of Co ₂ P. 2011 , 20, 066101	2
828	The pressure-temperature phase diagram of MgH ₂ and isotopic substitution. 2011 , 23, 305403	13
827	COMPARISON OF EQUATION OF STATE AND THE FOUR-PARAMETER Li EQUATION OF STATE IN ALLOY. 2011 , 25, 1557-1568	1
826	Pressure-Induced Phase Transition of V ₂ O ₃ . 2012 , 29, 106101	6
825	Earth science: Lower mantle may be rich in silica. 2012 , 485, 51-2	3
824	Quantum Monte Carlo study of pressure-induced B3B1 phase transition in GaAs. 2012 , 86,	8
823	Sound velocities of Fe and Fe-Si alloy in the Earth's core. 2012 , 109, 10239-44	75
822	Electrical resistivity and thermal conductivity of liquid Fe alloys at high P and T, and heat flux in Earth's core. 2012 , 109, 4070-3	225
821	Carbon and other light element contents in the Earth's core based on first-principles molecular dynamics. 2012 , 109, 19579-83	59
820	Development of the Kawai-type Multi-anvil Apparatus (KMA) and Its Application to High Pressure Earth Science. 2012 , 377, 012001	1
819	Elasticity and sound velocities of polycrystalline Mg ₃ Al ₂ (SiO ₄) ₃ garnet up to 20 GPa and 1700 K. 2012 , 112, 014910	20
818	A POSSIBLE CARBON-RICH INTERIOR IN SUPER-EARTH 55 Cancri e. 2012 , 759, L40	135
817	The Deep Earth. 2012 , 195-208	
816	Structural, electronic, and magnetic properties of Co-doped ZnO. 2012 , 21, 097101	16

815	Lattice electrical resistivity of magnetic bcc iron from first-principles calculations. 2012 , 85,	35
814	First-principles determination of the structure of magnesium borohydride. 2012 , 109, 245503	43
813	Compression of Fe _{88.1} Ni _{9.1} S _{2.8} alloy up to the pressure of Earth's inner core. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a	14
812	Ab initio quantum-mechanical study of the effects of the inclusion of iron on thermoelastic and thermodynamic properties of periclase (MgO). 2012 , 39, 649-663	15
811	Ab initio investigation of the effect of pressure on the structure and electronic properties of alkali metal oxides and peroxides. 2012 , 55, 495-500	8
810	AB Initio calculations of thermodynamic parameters of lithium, sodium and potassium peroxides. 2012 , 55, 622-628	
809	Analysis of High-Pressure Equation of State for Solids Based on the Lattice Potential Theory. 2012 , 33, 2267-2273	2
808	High compressibility of a flexible metal-organic framework. 2012 , 2, 5051	55
807	The study of pressure induced structural phase transition in spin-frustrated Yb ₂ Ti ₂ O ₇ pyrochlore. 2012 , 111, 033509	10
806	Structural, vibrational, and thermal properties of densified silicates: insights from molecular dynamics. 2012 , 137, 044510	53
805	High-pressure experimental geosciences: state of the art and prospects. 2012 , 183, 175-187	2
804	High pressure structural study of FeTiO_5 : X-ray diffraction and Raman spectroscopy. 2012 , 192, 356-359	27
803	Geoneutrinos and the energy budget of the Earth. 2012 , 54, 43-54	27
802	Sound velocity measurements in dhcp-FeH up to 70GPa with inelastic X-ray scattering: Implications for the composition of the Earth's core. 2012 , 313-314, 79-85	54
801	Melting phase relations in the MgO-MgSiO ₃ system between 16 and 26 GPa: Implications for melting in Earth's deep interior. 2012 , 345-348, 159-170	57
800	Improved Finnis-Binclair potential for bcc vanadium solid. 2012 , 53, 101-104	7
799	Charge self-consistent dynamical mean-field theory based on the full-potential linear muffin-tin orbital method: Methodology and applications. 2012 , 55, 295-302	81
798	Compressibility of Nanocrystalline TiO ₂ Anatase. 2012 , 116, 21635-21639	33

797	P-V-T equation of state for iron up to 80 GPa and 1900 K using the Kawai-type high pressure apparatus equipped with sintered diamond anvils. 2012 , 39,	27
796	Refractive index and compressibility of Di64An36 glass over a pressure range of 0-5.0 GPa. 2012 , 50, 1026-1031	2
795	A nine-fold coordinated vanadium by oxygen in V2O3 from first-principles calculations. 2012 , 85, 1	5
794	Geophysics of Chemical Heterogeneity in the Mantle. 2012 , 40, 569-595	109
793	Elastic and optical properties of Cu2ZnSn(SexS1-x)4 alloys: density functional calculations. 2012 , 27, 115001	17
792	Shape of thermal plumes in a compressible mantle with depth-dependent viscosity. 2012 , 39, n/a-n/a	15
791	Multi-technique equation of state for Fe2SiO4 melt and the density of Fe-bearing silicate melts from 0 to 161 GPa. <i>Journal of Geophysical Research</i> , 2012 , 117,	70
790	Shock vaporization of silica and the thermodynamics of planetary impact events. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a	79
789	Equation of state and phase diagram of Fe16Si alloy as a candidate component of Earth's core. 2012 , 357-358, 268-276	45
788	Structural Stability of Topologically Close-Packed Phases: Understanding Experimental Trends in Terms of the Electronic Structure. 2012 , 135-142	3
787	Theoretical study of some thermodynamical properties for solid under high pressure using finite-strain EOS. 2012 , 12, 17-22	4
786	Sound velocity measurements by x-ray shadowgraph technique for melting phenomena at ultrahigh-pressure regime. 2012 , 83, 10E529	4
785	Evidence for a phase transition in silicate melt at extreme pressure and temperature conditions. 2012 , 108, 065701	54
784	Electrical and thermal conductivity of Al liquid at high pressures and temperatures from ab initio computations. 2012 , 85,	31
783	Structural and vibrational study of cubic Sb2O3 under high pressure. 2012 , 85,	57
782	Melting of cubic boron nitride at extreme pressures. 2012 , 24, 055401	6
781	In situ X-ray diffraction measurements of the fcc-bcc phase transition boundary of an Fe-Ni alloy in an internally heated diamond anvil cell. 2012 , 39, 329-338	25
780	How light element addition can lower core liquid wave speeds. 2012 , 188, 1065-1070	18

779	Experimental determination of bulk modulus of 14 LaO bermorite using high pressure synchrotron X-ray diffraction. 2012 , 42, 397-403	61
778	The mineralogy and the origin of deep geospheres: A review. 2012 , 113, 94-109	21
777	Petrophysical analysis of a mid-crustal reflector in the IBERSEIS profile, SW Spain. 2012 , 550-553, 35-46	12
776	Effect of pressure on electric generation of PZT(30/70) and PZT(52/48) ceramics near phase transition pressure. 2012 , 32, 457-463	8
775	Ab initio calculations of the thermodynamic parameters of lithium, sodium, and potassium oxides under pressure. 2012 , 54, 1518-1527	9
774	Torsional wave propagation in non-homogeneous layer between non-homogeneous half-spaces. 2013 , 37, 1280-1291	17
773	Thermodynamic stability of various phases of zinc tin oxides from ab initio calculations. 2013 , 1, 6364	22
772	Equation of state of silicate melts with densified intermediate-range order at the pressure condition of the Earth's deep upper mantle. 2013 , 40, 299-307	8
771	Equation of state and elasticity of B2-type FeSi: Implications for silicon in the inner core. 2013 , 224, 32-37	9
770	Geo-neutrinos. 2013 , 73, 1-34	23
769	Equation of state of synthetic mirabilite ($\text{Na}_2\text{SO}_4 \cdot 10\text{D}_2\text{O}$) determined by powder neutron diffraction. 2013 , 46, 448-460	9
768	Compressibility and phase transition of intermetallic compound Fe_2Ti . 2013 , 558, 160-163	10
767	Siderophile element partitioning between cohenite and liquid in the Fe-Ni-Si-C system and implications for geochemistry of planetary cores and mantles. 2013 , 120, 239-250	13
766	Evaluation of pressure and bulk modulus for alkali halides under high pressure and temperature using different EOSPeer review under responsibility of University of Bahrain.View all notes. 2013 , 14, 38-45	1
765	Impact of magnetism on Fe under Earth's core conditions. 2013 , 87,	45
764	Causes and consequences of outer core stratification. 2013 , 223, 2-7	32
763	Thermal equation of state to 33.5 GPa and 1673 K and thermodynamic properties of tungsten. 2013 , 113, 133505	14
762	Simulations of nanocrystals under pressure: combining electronic enthalpy and linear-scaling density-functional theory. 2013 , 139, 084117	7

761	High-pressure structural transformations of Sn up to 138 GPa: Angle-dispersive synchrotron x-ray diffraction study. 2013 , 88,	35
760	Theoretical study of the thermodynamic properties of lithium, sodium, and potassium nitrates. 2013 , 55, 1765-1772	15
759	CHAPTER 14:Towards Future MOF Catalytic Applications. 406-424	3
758	Ab initio determination of the bulk modulus of the chromium nitride CrN. 2013 , 3, 17813	5
757	Structural study of Bi ₂ O ₃ under pressure. 2013 , 25, 475402	27
756	Advanced Materials Design Using Lasers. 2013 , 43-58	
755	Deformation localization in orogens: Spatiotemporal expression and thermodynamic constraint. 2013 , 50, 221-236	2
754	Structural stability of URh ₃ at high pressure. 2013 , 413, 64-68	4
753	Structural stability and Raman scattering of CoPt and NiPt hollow nanospheres under high pressure. 2013 , 23, 382-387	5
752	Gupta potential for rare earth elements of the fcc phase: lanthanum and cerium. 2013 , 21, 065003	7
751	First-principles prediction of ferroelastic phase transition in AlPO ₄ . 2013 , 155, 88-91	4
750	Annealing of directionally solidified alloys revisited: No loss of solidification texture in Earth's inner core. 2013 , 223, 32-39	6
749	Density of phonolitic magmas and time scales of crystal fractionation in magma chambers. 2013 , 381, 12-20	25
748	Phase relations in the FeBeSi system at high pressures and temperatures. 2013 , 373, 54-64	91
747	Thermal equation of state and thermodynamic properties of molybdenum at high pressures. 2013 , 113, 093507	31
746	The effect of nickel on the properties of iron at the conditions of Earth's inner core: Ab initio calculations of seismic wave velocities of FeNi alloys. 2013 , 365, 143-151	47
745	Volatiles under High Pressure. 2013 , 1-37	1
744	Chemical and Physical Properties and Thermal State of the Core. 2013 , 244-270	5

743	Polymorphism of Crystalline Phases. 2013 , 25-59	
742	Composition and State of the Core. 2013 , 41, 657-691	194
741	Single-crystal diffraction at megabar conditions by synchrotron radiation. 2013 , 33, 511-522	63
740	Physical Processes in Geothermal Areas. 2013 , 211-239	52
739	Systematic study of the influence of different equations of states on the calculation of elastic properties□ 2013 , 33, 622-632	1
738	Pressure-induced half-metallicity in Co ₂ MnGe _{0.75} Ga _{0.25} . 2013 , 346, 192-195	1
737	Demixing instability in dense molten MgSiO ₃ and the phase diagram of MgO. 2013 , 110, 135504	39
736	Compressible viscoelastodynamics of a spherical body at long timescales and its isostatic equilibrium. 2013 , 193, 1071-1082	7
735	Phase Transitions. 2013 , 637-649	2
734	V _p structure of the outermost core derived from analysing large-scale array data of SmKS waves. 2013 , 193, 1537-1555	31
733	Effect of laser annealing of pressure gradients in a diamond-anvil cell using common solid pressure media. 2013 , 84, 103904	10
732	Melting behavior of SnI ₄ reexamined. 2013 , 139, 244503	11
731	The persistent mantle plume myth. 2013 , 60, 657-673	28
730	Electronic, elastic, vibrational, and thermodynamic properties of type-VIII clathrates Ba ₈ Ga ₁₆ Sn ₃₀ and Ba ₈ Al ₁₆ Sn ₃₀ by first principles. 2013 , 114, 163509	12
729	Analyses of marginal stability, heat transfer and boundary layer properties for thermal convection in a compressible fluid with infinite Prandtl number. 2013 , 194, 125-144	15
728	Density and Composition of the Upper Mantle: First Approximation as an Olivine Layer. 2013 , 18-36	29
727	High Pressure Phase Transitions in a Homogeneous Model Martian Mantle. 2013 , 19-25	9
726	THEORETICAL PREDICTION OF ELASTIC CONSTANTS FOR MgO. 2013 , 22, 24-27	

725	Shock compression of Fe-FeS mixture up to 204 GPa. 2013 , 40, 687-691	21
724	Heat Conductivity in the Mantle. 2013 , 622-626	5
723	Composition and Evolution of the Upper Mantle. 2013 , 1-17	45
722	Analysis of Equation of State for Carbon Nanotubes. 2013 , 2013, 1-5	2
721	Differential Finite-Strain Equations of State. 2013 , 147-156	2
720	Compression behavior of manganite. 2013 , 108, 295-299	9
719	An in Situ Method of Determining the Pressure Dependence of Phase-Transition Temperatures in the Crust. 2013 , 185-191	3
718	Equation of State at High Pressure. 2013 , 650-659	1
717	Low-Velocity Layers in the Upper Mantle. 2013 , 664-675	2
716	Constraints on the Temperature and Composition of the Base of the Mantle. 2013 , 181-189	11
715	Jeffreys and the Earth. 2013 , 1-10	
714	Analysis of equation of states for the suitability at high pressure: MgO as an example. 2014 , 2014, 289353	4
713	High-pressure experimental studies on geo-liquids using synchrotron radiation at the Advanced Photon Source. 2014 , 25, 939-958	6
712	Experimental and theoretical investigation on the compression mechanism of FeF ₃ up to 62.0 GPa. 2014 , 70, 801-8	4
711	Pressure-induced phase transition of lead phosphate Pb ₃ (PO ₄) ₂ : X-ray diffraction and XANES. 2014 , 87, 1255-1264	5
710	Ab initio prediction of the structural, electronic, elastic and thermodynamic properties of the tetragonal ternary intermetallics XCu ₂ Si ₂ (X = Ca, Sr). 2014 , 87, 1	6
709	High-pressure structural behaviour of HoVO ₄ : combined XRD experiments and ab initio calculations. 2014 , 26, 265402	47
708	The effect of cation ordering and temperature on the high-pressure behaviour of dolomite. 2014 , 41, 783-793	16

707	A seismologically consistent compositional model of Earth's core. 2014 , 111, 7542-5	167
706	High-pressure and high-temperature phase diagram for Fe _{0.9} Ni _{0.1} B alloy. 2014 , 228, 192-201	18
705	Experimental determination of the Si isotope fractionation factor between liquid metal and liquid silicate. 2014 , 387, 55-66	39
704	Outer core compositional layering and constraints on core liquid transport properties. 2014 , 391, 256-262	25
703	From Airlie House in 1977 to Granlibakken in 2012: 35Years of evolution of mineral physics. 2014 , 228, 36-45	2
702	Experimental and theoretical investigations on high-pressure phase transition of Sr ₂ Fe ₂ O ₅ . 2014 , 41, 449-459	6
701	Sound velocity and density measurements of liquid iron up to 800 GPa: A universal relation between Birch's law coefficients for solid and liquid metals. 2014 , 392, 80-85	9
700	Determination of the thermal properties of AlB ₂ -type WB ₂ . 2014 , 288, 324-330	16
699	Heterogeneity and Anisotropy of Earth's Inner Core. 2014 , 42, 103-126	65
698	Effects of radiogenic heat production and mantle compressibility on the behaviors of Venus and Earth's mantle and lithosphere. 2014 , 18, 13-30	1
697	In situ synchrotron X-ray diffraction in the laser-heated diamond anvil cell: Melting phenomena and synthesis of new materials. 2014 , 277-278, 15-30	32
696	Metal Organic Framework Catalysis: Quo vadis?. 2014 , 4, 361-378	756
695	Anharmonic effect on the equation of state (EoS) for NaCl. 2014 , 41, 91-103	6
694	Volcanic eruption triggers: A hierarchical classification. 2014 , 129, 100-119	19
693	Studying equilibrium values of moduli of elasticity, using models of the mechanics of finite deformations of a continuous medium. 2014 , 78, 788-792	
692	Discovery of a new phase transition in gallium nitride at 22 GPa. 2014 , 78, 773-776	
691	From superhard to hard: A review of transition metal dioxides TiO ₂ , ZrO ₂ , and HfO ₂ hardness. 2014 , 36, 231-245	17
690	Mantle updrafts and mechanisms of oceanic volcanism. 2014 , 111, E4298-304	27

689	Structural studies of AgSbTe ₂ under pressure: Experimental and theoretical analyses. 2014 , 14, 1538-1542	7
688	SnO ₂ : A comprehensive review on structures and gas sensors. 2014 , 66, 112-255	689
687	Melting Curve of Molecular Crystal GeI ₄ . 2014 , 83, 074603	10
686	A Continuum DamageBreakage Faulting Model and Solid-Granular Transitions. 2014 , 171, 3099-3123	19
685	Claus Prodehl and Walter D. Mooney: Exploring the earth's crust: history and results of controlled-source seismology. 2014 , 35, 419-421	
684	Calculation of self-diffusion coefficients in iron. 2014 , 4, 017128	41
683	Compositional Model for the Earth's Core. 2014 , 559-577	46
682	Experimental Constraints on Core Composition. 2014 , 527-557	30
681	Geophysical Constraints on Mantle Composition. 2014 , 41-65	7
680	Computational thermodynamics, computational kinetics, and materials design. 2014 , 59, 1662-1671	13
679	Ab initio investigation of the pressure influence on elastic properties of the GaS layered compound. 2014 , 56, 619-625	5
678	A study of the reactivity of silver azide based on calculations of the band properties within the framework of density functional theory. 2014 , 8, 117-125	4
677	Ab initio calculations of elastic properties of titanium nanoclusters. 2014 , 9, 189-193	2
676	High-pressure behavior of Fe ₃ P and the role of phosphorus in planetary cores. 2014 , 390, 296-303	26
675	Deep Earth mineralogy revealed by ultrahigh-pressure experiments. 2014 , 78, 437-446	1
674	Elastic properties of transparent nano-polycrystalline diamond measured by GHz-ultrasonic interferometry and resonant sphere methods. 2014 , 228, 47-55	27
673	Compressibility of liquid FeS measured using X-ray radiograph imaging. 2014 , 228, 294-299	18
672	Atomistic Simulations of Properties and Phenomena at High Temperatures. 2014 , 287-393	1

671	Universal fractional noncubic power law for density of metallic glasses. 2014 , 112, 185502	56
670	Sound velocities of bcc-Fe and Fe _{0.85} Si _{0.15} alloy at high pressure and temperature. 2014 , 233, 24-32	15
669	Equations of state in the Fe-FeSi system at high pressures and temperatures. 2014 , 119, 2810-2827	52
668	Pressure-induced novel compounds in the Hf-O system from first-principles calculations. 2015 , 92,	31
667	The Earth's Building Blocks. 2015 , 27-47	5
666	Electronic correlations in Fe at Earth's inner core conditions: Effects of alloying with Ni. 2015 , 91,	9
665	Comparative compressibility of hydrous wadsleyite and ringwoodite: Effect of H ₂ O and implications for detecting water in the transition zone. 2015 , 120, 8259-8280	19
664	Recent Advances in Geophysical Studies of the Interior of Terrestrial Planets. 2015 , 124, 1-30	
663	Stability of equilibrium of a compressible hyperelastic hollow sphere. 2015 , 56, 679-687	1
662	Seismological evidence for a non-monotonic velocity gradient in the topmost outer core. 2015 , 5, 8613	17
661	The hard sphere view of the outer core. 2015 , 67,	3
660	High-pressure, high-temperature equations of state using nanofabricated controlled-geometry Ni/SiO ₂ /Ni double hot-plate samples. 2015 , 42, 10,239	6
659	Deep Earth Seismology: An Introduction and Overview. 2015 , 1-28	5
658	Deep Earth Structure - Transition Zone and Mantle Discontinuities. 2015 , 655-682	5
657	Deep Earth Structure: The Earth's Cores. 2015 , 725-757	13
656	Constraints on Seismic Models from Other Disciplines - Constraints from Mineral Physics on Seismological Models. 2015 , 829-852	6
655	Crust and Lithospheric Structure - Global Crustal Structure. 2015 , 339-390	16
654	Interior Structure, Composition, and Mineralogy of the Terrestrial Planets. 2015 , 23-64	10

653	Theoretical study of α -Fe ₄ N and e-Fe x N iron nitrides at pressures up to 500 GPa. 2015 , 101, 371-375	10
652	Composition of the core from gallium metal-silicate partitioning experiments. 2015 , 427, 191-201	22
651	An ab initio study of the structural, elastic, electronic and optical properties of the newly synthesized nitridoaluminate LiCaAlN ₂ . 2015 , 95, 41-63	4
650	First-principles computation of mantle materials in crystalline and amorphous phases. 2015 , 240, 43-69	20
649	Lithiation Behavior of High Capacity SiCO Anode Material for Lithium-ion Battery: A First Principle Study. 2015 , 156, 115-120	9
648	Elastic behavior of random polycrystals composed of anisotropic β -quartz (SiO ₂) under pressure. 2015 , 89, 121-132	1
647	Polarized Plate Tectonics. 2015 , 1-167	58
646	High Poisson's ratio of Earth's inner core explained by carbon alloying. 2015 , 8, 220-223	90
645	Sound velocities of Fe ₃ Al ₂ Si ₃ O ₁₂ almandine up to 19 GPa and 1700 K. 2015 , 246, 1-8	21
644	First-principles calculations of properties of orthorhombic iron carbide Fe ₇ C ₃ at the Earth's core conditions. 2015 , 91,	16
643	High pressure stability of the monosilicides of cobalt and the platinum group elements. 2015 , 626, 375-380	12
642	Imaging Mantle Heterogeneity with Upper Mantle Seismic Discontinuities. 2015 , 79-104	4
641	Structural, elastic, electronic and optical properties of the quaternary nitridogallate LiCaGaN ₂ : First-principles study. 2015 , 40, 64-76	18
640	High pressure metal-silicate partitioning of Ni, Co, V, Cr, Si, and O. 2015 , 167, 177-194	127
639	Inner Core Dynamics. 2015 , 297-316	3
638	Mineral Physics: An Introduction and Overview. 2015 , 1-5	1
637	Mineralogy of Super-Earth Planets. 2015 , 149-178	30
636	Multi-Anvil Cells and High Pressure Experimental Methods. 2015 , 233-261	7

635	Seismic Anisotropy of the Deep Earth from a Mineral and Rock Physics Perspective. 2015 , 487-538	28
634	Phase Transitions and Mineralogy of the Lower Mantle. 2015 , 33-60	18
633	Lattice Vibrations and Spectroscopy of Mantle Phases. 2015 , 203-231	1
632	Theory and Practice: Techniques for Measuring High-Pressure Elasticity. 2015 , 293-312	7
631	Dynamic Compression. 2015 , 393-416	5
630	Physics of Mantle Convection. 2015 , 23-71	12
629	Formation of the Earth's Core. 2015 , 43-79	28
628	Core Dynamics: An Introduction and Overview. 2015 , 1-25	6
627	Sound velocity measurement by inelastic X-ray scattering at high pressure and temperature by resistive heating diamond anvil cell. 2015 , 56, 190-195	5
626	Initial seismic observations from a deep borehole drilled into the Canadian Shield in northeast Alberta. 2015 , 104, 1549-1562	5
625	Inelastic neutron scattering studies of phonon spectra, and simulations of pressure-induced amorphization in tungstates AWO ₄ (A=Ba,Sr,Ca, and Pb). 2015 , 91,	22
624	Analysis of the Interrelationship Between Melting and Fracturing of Alkali Halides. 2015 , 36, 1569-1576	
623	High-pressure powder x-ray diffraction study of EuVO ₄ . 2015 , 226, 147-153	34
622	New PbTiO ₃ -Type Giant Tetragonal Compound Bi ₂ ZnVO ₆ and Its Stability under Pressure. 2015 , 27, 2012-2017	26
621	On the difficulties of detecting PP precursors. 2015 , 201, 1666-1681	20
620	Energies and Forces. 2015 , 129-161	
619	Sound velocity of hcp-Fe at high pressure: experimental constraints, extrapolations and comparison with seismic models. 2015 , 2,	18
618	Core formation and core composition from coupled geochemical and geophysical constraints. 2015 , 112, 12310-4	94

617	The feasibility of thermal and compositional convection in Earth's inner core. 2015 , 201, 764-782	7
616	H, not O or pressure, causes eutectic T depression in the Fe-FeS System to 8'GPa. 2015 , 50, 547-554	7
615	Determination of Pressure Effects on the $\beta \rightarrow \alpha$ Phase Transition and Size of Fe in Nd-Fe-B Spring Exchange Magnets. 2015 , 46, 5002-5010	5
614	Cobalt ferrite nanoparticles under high pressure. 2015 , 118, 075903	34
613	Constraints from material properties on the dynamics and evolution of Earth's core. 2015 , 8, 678-685	86
612	Ab-initio DFT FP-LAPW GGA and LDA TB-mBJ and SO theoretical study of structural and elastic properties of Zinc-Blende crystal phase GaAs $_{1-x}$ Bix alloys. 2015 , 88, 18-31	5
611	Computational Exploration of the Binary A1B1 Chemical Space for Thermoelectric Performance. 2015 , 27, 6213-6221	32
610	Melting Behavior of a Model Molecular Crystalline Gel4. 2015 , 84, 064601	8
609	Accurate Equation of State for the Modified Lennard-Jones Solid. 2015 , 84, 085002	2
608	Phase diagram and thermodynamic properties of AlPO4 based on first-principles calculations and the quasiharmonic approximation. 2015 , 42, 15-27	4
607	Hydrostatic Compression Behavior and High-Pressure Stabilized β Phase in α Based Titanium Aluminide Intermetallics. 2016 , 6, 165	17
606	Effect of Guest Atom Composition on the Structural and Vibrational Properties of the Type II Clathrate-Based Materials ASi, AGe and ASn (A = Na, K, Rb, Cs; 0 $\leq x \leq 1$). 2016 , 9,	4
605	Seismic parameters of hcp-Fe alloyed with Ni and Si in the Earth's inner core. 2016 , 121, 610-623	11
604	Peculiarities of FeSi phonon spectrum induced by a change of atomic volume. 2016 , 123, 1073-1083	4
603	Elasticity of methane hydrate phases at high pressure. 2016 , 144, 154501	4
602	Atomistic modeling of structure II gas hydrate mechanics: Compressibility and equations of state. 2016 , 6, 085317	17
601	Constraints on Earth's inner core composition inferred from measurements of the sound velocity of hcp-iron in extreme conditions. 2016 , 2, e1500802	35
600	Combined laser ultrasonics, laser heating, and Raman scattering in diamond anvil cell system. 2016 , 87, 123908	13

599	The phase diagram of NiSi under the conditions of small planetary interiors. 2016 , 261, 196-206	5
598	A new type of vanadium carbide V ₅ C ₃ and its hardening by tuning Fermi energy. 2016 , 6, 21794	16
597	Effect of shear strength on Hugoniot-compression curve and the equation of state of tungsten (W). 2016 , 119, 035904	11
596	Silicon stable isotope fractionation between metal and silicate at high-pressure, high-temperature conditions as a tracer of planetary core formation. 2016 , 95, 113-129	2
595	Is the mantle chemically stratified? Insights from sound velocity modeling and isotope evolution of an early magma ocean. 2016 , 440, 158-168	9
594	Thermometry of the magma ocean: Controls on the metal-silicate partitioning of gold. 2016 , 184, 173-192	9
593	First-principles calculations of elasticity of minerals at high temperature and pressure. 2016 , 59, 1107-1137	10
592	The elastic properties of hcp-Fe 1-x Si x at Earth's inner-core conditions. 2016 , 451, 89-96	22
591	Melting of Fe Alloys and the Thermal Structure of the Core. 2016 , 1-12	6
590	Physical Properties of the Inner Core. 2016 , 121-128	1
589	The Composition of the Lower Mantle and Core. 2016 , 143-159	6
588	Phase Diagrams and Thermodynamics of Core Materials. 2016 , 191-199	5
587	Chemistry of the Lower Mantle. 2016 , 225-240	5
586	Phase Diagrams and Thermodynamics of Lower Mantle Materials. 2016 , 241-252	4
585	Carbon in the Core. 2016 , 277-288	5
584	Ground Truth. 2016 , 111-119	
583	Constitution and Structure of Earth's Mantle. 2016 , 219-243	2
582	VARIATIONAL PRINCIPLE FOR PLANETARY INTERIORS. 2016 , 829, 18	20

581	Pressure-induced phase transition and band-gap collapse in the wide-band-gap semiconductor InTaO ₄ . 2016 , 93,	27
580	Experimental observation of phonons as spectators in FeSi electronic gap formation. 2016 , 93,	8
579	Atomic-level mechanism of elastic deformation in the Zr-Cu metallic glass. 2016 , 93,	10
578	Unveiling the Room-Temperature Magnetoelectricity of Troilite FeS. 2016 , 116, 227601	18
577	Thermoelasticity of Fe ₇ C ₃ under inner core conditions. 2016 , 121, 5828-5837	23
576	SCALING THE EARTH: A SENSITIVITY ANALYSIS OF TERRESTRIAL EXOPLANETARY INTERIOR MODELS. 2016 , 819, 32	72
575	Experimental constraints on light elements in the Earth's outer core. 2016 , 6, 22473	21
574	High-pressure melting experiments on FeBi alloys and implications for silicon as a light element in the core. 2016 , 456, 47-54	45
573	Thermoelectricity in transition metal compounds: the role of spin disorder. 2016 , 18, 31777-31786	18
572	MASS-RADIUS RELATION FOR ROCKY PLANETS BASED ON PREM. 2016 , 819, 127	217
571	Phase-Transition Studies on Earth's Materials by High-Pressure Experiments and Calorimetry, and Crystal-Chemical Studies on High-Pressure Inorganic Compounds. 2016 , 26, 167-177	
570	Uncertainty of mantle geophysical properties computed from phase equilibrium models. 2016 , 43, 5026-5034	26
569	Thermal equation of state of hcp-iron: Constraint on the density deficit of Earth's solid inner core. 2016 , 43, 6837-6843	50
568	Sound velocities of bridgmanite from density of states determined by nuclear inelastic scattering and first-principles calculations. 2016 , 3,	5
567	Compression of Fe ₅ Bi alloys to core pressures. 2016 , 43, 3686-3692	19
566	Thermodynamic Predictions of Thermal Expansivity and Elastic Compliances at High Temperatures and Pressures Applied to Perovskite Crystals. 2016 , 47, 5852-5858	1
565	TE Design Lab: A virtual laboratory for thermoelectric material design. 2016 , 112, 368-376	79
564	Determination of a melting curve using the one-phase approach. 2016 , 380, 293-298	2

563	Composition of the Earth's core: A review. 2016 , 57, 22-46	41
562	Torsional Wave in a Viscoelastic Layer over a Viscoelastic Substratum of Voigt Types. 2016 , 20, 1278-1294	6
561	Pressure-induced phase transformations of PbCO ₃ by X-ray diffraction and Raman spectroscopy. 2016 , 36, 1-15	13
560	Propagation of torsional surface waves in a double porous layer lying over a Gibson half space. 2016 , 80, 56-64	8
559	Phase stability, mechanical and thermodynamic properties of orthorhombic and trigonal MgSiN ₂ : an ab initio study. 2016 , 89, 480-513	38
558	Theoretical study on structural and electronic properties of solid anthracene under high pressure by density functional theory. 2016 , 114, 283-289	6
557	Computational characterization and prediction of metal-organic framework properties. 2016 , 307, 211-236	162
556	High pressure structural investigation on alluaudites Na ₂ Fe ₃ (PO ₄) ₃ -Na ₂ FeMn ₂ (PO ₄) ₃ system. 2017 , 247, 156-160	2
555	Prediction on technetium triboride from first-principles calculations. 2017 , 252, 40-45	12
554	Metal-silicate Partitioning and Its Role in Core Formation and Composition on Super-Earths. 2017 , 835, 234	13
553	Experimental determination of oxygen diffusion in liquid iron at high pressure. 2017 , 464, 116-123	13
552	Hydrogenation of iron in the early stage of Earth's evolution. 2017 , 8, 14096	35
551	Aluminum-induced dreierketten chain cross-links increase the mechanical properties of nanocrystalline calcium aluminosilicate hydrate. 2017 , 7, 44032	75
550	On Rayleigh Waves in Self-reinforced Layer Embedded over an Incompressible Half-space with Varying Rigidity and Density. 2017 , 173, 1021-1028	1
549	Effects of electron doping on the stability of the metal hydride NaH. 2017 , 29, 145401	3
548	Full Elasticity Tensor from Thermal Diffuse Scattering. 2017 , 118, 035502	12
547	Structural evolution of FeH ₄ under high pressure. 2017 , 7, 12570-12575	13
546	Stabilization of body-centred cubic iron under inner-core conditions. 2017 , 10, 312-316	59

- 545 Structural changes and anomalous self-diffusion of oxygen in liquid iron at high pressure. **2017**, 44, 3526-3534 10
- 544 Anisotropy in the deep Earth. **2017**, 269, 58-90 51
- 543 On approximations of the basic equations of terrestrial mantle convection used in published literature. **2017**, 268, 11-17 7
- 542 A One-Phase Approach for Predicting the Melting Curve of MgO. **2017**, 86, 064602 3
- 541 Polymorphism in a high-entropy alloy. **2017**, 8, 15687 151
- 540 Stress distribution during cold compression of a quartz aggregate using synchrotron X-ray diffraction: Observed yielding, damage, and grain crushing. **2017**, 122, 2724-2735 3
- 539 Torsional Wave Propagation in a Sandy Layer Under Initial Stress Over an Inhomogeneous Half-space. **2017**, 173, 1003-1013
- 538 Structural, elastic and thermodynamic properties of iron carbide Fe₇C₃ phases: An ab initio study. **2017**, 55, 977-988 1
- 537 A Simple Analytical Model for Rocky Planet Interiors. **2017**, 837, 164 26
- 536 Zinc-Blende MnTe Under Pressure: Structural, Mechanical, and Optical Properties from Ab Initio Calculation. **2017**, 30, 1533-1538 3
- 535 Mantle geochemistry: Insights from ocean island basalts. **2017**, 60, 1976-2000 8
- 534 Densification of the interlayer spacing governs the nanomechanical properties of calcium-silicate-hydrate. **2017**, 7, 10986 77
- 533 Dispersion and attenuation of torsional wave in a viscoelastic layer bonded between a layer and a half-space of dry sandy media. **2017**, 38, 1313-1328 18
- 532 Equation of state for charge-doping-induced deformation and hardening in cubic crystals. **2017**, 96, 100000 1
- 531 High-pressure phase transitions of quartz under nonhydrostatic dynamic conditions: A reconnaissance study at PETRA III. **2017**, 52, 1465-1474 9
- 530 First-principles prediction of Si-doped Fe carbide as one of the possible constituents of Earth's inner core. **2017**, 44, 8776-8784 7
- 529 Water in the Earth's Interior: Distribution and Origin. **2017**, 212, 743-810 92
- 528 Better band gaps for wide-gap semiconductors from a locally corrected exchange-correlation potential that nearly eliminates self-interaction errors. **2017**, 29, 424001 4

527	The Effects of Mg/Si on the Exoplanetary Refractory Oxygen Budget. 2017 , 845, 61	42
526	Polyamorphic Transformations in Fe-Ni-C Liquids: Implications for Chemical Evolution of Terrestrial Planets. 2017 , 122, 9745-9754	9
525	A first principles study of the mechanical, electronic, and vibrational properties of lead oxide. 2017 , 59, 2296-2311	7
524	Pressure-induced phase transition of B-type Y_2O_3 . 2017 , 26, 090703	2
523	The neodymium stable isotope composition of the silicate Earth and chondrites. 2017 , 480, 121-132	18
522	Sensitivities of Earth's core and mantle compositions to accretion and differentiation processes. 2017 , 458, 252-262	34
521	When water meets iron at Earth's core-mantle boundary. 2017 , 4, 870-878	51
520	Quantum-mechanical analysis of effect of alloying elements on β -martensite start temperature of steels. 2017 , 7, 17860	4
519	Equation of state and lattice parameter of SnO_2 nanomaterial. 2017 , 4, 9547-9551	1
518	Combined laser ultrasonics, and Raman scattering in diamond anvil cell system operating in the transmission configuration. 2017 , 950, 042013	
517	Mars core structure—concise review and anticipated insights from InSight. 2017 , 4,	14
516	Origin of the LLSVPs at the base of the mantle is a consequence of plate tectonics: A petrological and geochemical perspective. 2018 , 9, 1265-1278	24
515	Measurements of sound velocity in iron–nickel alloys by femtosecond laser pulses in a diamond anvil cell. 2018 , 45, 589-595	9
514	Chemical Reactions Between Fe and H_2O up to Megabar Pressures and Implications for Water Storage in the Earth's Mantle and Core. 2018 , 45, 1330-1338	29
513	Realization of a half-metallic state on bilayer WSe using doping transition metals (Cr, Mn, Fe, Co, Ni) in its interlayer. 2018 , 29, 115201	13
512	High-Pressure Geophysical Properties of Fcc Phase FeHx. 2018 , 19, 305-314	23
511	Sound velocities and density measurements of solid hcp-Fe and hcp-Fe ₉₁ Si ₉ (9 wt.%) alloy at high pressure: Constraints on the Si abundance in the Earth's inner core. 2018 , 482, 446-453	20
510	A new observation of strain-induced grain boundary serration and its underlying mechanism in a Ni ₈₀ Cr binary model alloy. 2018 , 135, 146-153	9

509	High pressure in-situ X-ray diffraction study on Zn-doped magnetite nanoparticles. 2018 , 77, 1-4	2
508	Core-Exsolved SiO ₂ Dispersal in the Earth's Mantle. 2018 , 123, 176-188	9
507	Observation of the negative pressure derivative of the bulk modulus in monoclinic ZrO ₂ . 2018 , 8, 015310	3
506	Gassmann Theory Applies to Nanoporous Media. 2018 , 45, 146-155	17
505	Love-type wave propagation in a hydrostatic stressed magneto-elastic transversely isotropic strip over an inhomogeneous substrate caused by a disturbance point source. 2018 , 29, 2508-2521	9
504	Compressibility of Cs ₂ SnBr ₆ by X-ray diffraction and Raman spectroscopy. 2018 , 275, 68-72	19
503	Fe/Mg substitution in aluminate spinels: effects on elastic properties investigated by Brillouin scattering. 2018 , 45, 759-772	3
502	Synthesis and characterization of Ti-doped ZrSiO ₄ at ambient and high-pressure conditions. 2018 , 53, 8817-8825	4
501	The high-pressure stability of Ni ₂ In-type structure of ZrO ₂ with respect to OII and Fe ₂ P-type phases: A first-principles study. 2018 , 305, 012016	0
500	Dispersion study of SH-wave propagation in an irregular magneto-elastic anisotropic crustal layer over an irregular heterogeneous half-space. 2018 , 30, 301-310	7
499	Non-equilibrium theory employing enthalpy-based equation of state for binary solid and porous mixtures. 2018 , 28, 141-151	8
498	Structure stabilization effect of configuration entropy in cubic WN. 2018 , 20, 29243-29248	1
497	Theoretical and Experimental Evidence for a Post-Cotunnite Phase Transition in Hafnia at High Pressures. 2018 , 40, 374-383	1
496	Origin of Earth's Water: Chondritic Inheritance Plus Nebular Ingassing and Storage of Hydrogen in the Core. 2018 , 123, 2691-2712	46
495	Ultrasonic Velocity of Diopside Liquid at High Pressure and Temperature: Constraints on Velocity Reduction in the Upper Mantle Due to Partial Melts. 2018 , 123, 8676-8690	9
494	High-Pressure High-Temperature Stability and Thermal Equation of State of Zircon-Type Erbium Vanadate. 2018 , 57, 14005-14012	10
493	On the Origin of the Upper Mantle Seismic Discontinuities. 2018 , 5-34	9
492	Preface to the Second Edition. xix-xx	

491 Radial velocities. 17-80

490 Astrometry. 81-102

489 Timing. 103-118

488 Microlensing. 119-152

487 Imaging. 329-372

486 Host stars. 373-428

485 Brown dwarfs and free-floating planets. 429-448

484 Formation and evolution. 449-558

483 Interiors and atmospheres. 559-648

482 The solar system. 649-700

481 Numerical quantities. 701-704

480 Notation and acronyms. 705-712

479 Radial velocity exoplanets. 713-726

478 Transiting exoplanets. 727-758

477 Lensing exoplanets. 759-760

476 References. 765-932

475 Introduction. 1-16

474 Electronic and magnetic properties of iron hydride under pressure: An experimental and computational study using x-ray absorption spectroscopy and x-ray magnetic circular dichroism at the Fe K edge. **2018**, 98,

473	Electronic properties and compressional behavior of FeBi alloys at high pressure. 2018 , 103, 1959-1965	3
472	Pressure-induced transformations in Ce-Al metallic glasses: The role of stiffness of interatomic pairs. 2018 , 757, 484-488	3
471	Effect of Silicon, Carbon, and Sulfur on Structure of Liquid Iron and Implications for Structure-Property Relations in Liquid Iron-Light Element Alloys. 2018 , 123, 4697-4706	10
470	Equations of state and phase boundary for stishovite and CaCl ₂ -type SiO ₂ . 2018 , 103, 792-802	19
469	The thermal expansion of gold: point defect concentrations and pre-melting in a face-centred cubic metal. 2018 , 51, 470-480	26
468	Seismically determined elastic parameters for Earth's outer core. 2018 , 4, eaar2538	38
467	Ab Initio Prediction of Potassium Partitioning Into Earth's Core. 2018 , 123, 6451	6
466	The effect of nickel on the strength of iron nickel alloys: Implications for the Earth's inner core. 2018 , 283, 43-47	5
465	Thermal Transport in Micro- and Nanoscale Systems. 2018 , 277-327	1
464	The prediction of a new high-pressure phase of hafnia using first-principles computations. 2018 , 305, 012006	2
463	Nitrogen Solubility in Core Materials. 2018 , 45, 7434-7443	13
462	Ab initio theory of the equation of state for compressed rare gas crystals. 2018 , 60, 153-161	2
461	Equation of state, thermoelastic properties and melting behavior of NaCl at high temperatures and high pressures. 2018 , 123, 364-370	8
460	Transits. 153-328	
459	X-Ray Diffraction under Extreme Conditions at the Advanced Light Source. 2018 , 2, 4	14
458	Development of a ReaxFF reactive force field for lithium ion conducting solid electrolyte LiAlTi(PO) ₄ (LATP). 2018 , 20, 22134-22147	14
457	High-pressure/high-temperature phase diagram of zinc. 2018 , 30, 295402	16
456	Preface. Some remarks on the evolution of mineral physics over the past 40 years. 2019 , 351, 67-70	

455	Resistivity saturation in liquid ironlight-element alloys at conditions of planetary cores from first principles computations. 2019 , 351, 154-162	10
454	Elasticity and Anisotropy of the Pyrite-Type FeO ₂ H-FeO ₂ System in Earth's Lowermost Mantle. 2019 , 30, 1293-1301	5
453	Equation of State for Shocked Fe-8.6 wt% Si up to 240 GPa and 4,670 K. 2019 , 124, 8300-8312	9
452	Pressure and Composition Effects on Sound Velocity and Density of Core-Forming Liquids: Implication to Core Compositions of Terrestrial Planets. 2019 , 124, 2272-2293	22
451	High-Pressure Synthesis and Phase Stability of Nickel Pernitride. 2019 , 2019, 3753-3757	16
450	Exoplanet interiors and habitability. 2019 , 4, 1630316	3
449	First Principles Study of the Vibrational and Thermal Properties of Sn-Based Type II Clathrates, Cs _x Sn ₁₃₆ (0 ≤ x ≤ 4) and Rb ₂₄ Ga ₂₄ Sn ₁₁₂ . 2019 , 7, 74	0
448	Influence of angularities on magma tapping processes. 2019 , 381, 140-156	1
447	Elastic, electronic, chemical bonding and thermodynamic properties of the ternary nitride CaTiN: Ab initio predictions. 2019 , 92, 74-85	1
446	Phase transition boundary between fcc and hcp structures in Fe-Si alloy and its implications for terrestrial planetary cores. 2019 , 104, 94-99	15
445	Thermal equation of state of ruthenium characterized by resistively heated diamond anvil cell. 2019 , 9, 14459	2
444	New normal mode constraints on bulk inner core velocities and density. 2019 , 295, 106310	6
443	Mass Transport and Structural Properties of Binary Liquid Iron Alloys at High Pressure. 2019 , 20, 3556-3568	5
442	Lower Mantle Dynamics Perceived With 50 Years of Hindsight From Plate Tectonics. 2019 , 20, 5619-5649	4
441	Finite Strain Analysis of Shear and Compressional Wave Velocities. 2019 , 124, 11651-11677	2
440	Electronic Property and Negative Thermal Expansion Behavior of SiGe (= 8, 32, 40, 104) Clathrate Solid Solution from First Principles. 2019 , 9,	1
439	Equations of State for the Deep Earth: Some Fundamental Considerations. 2019 , 9, 636	3
438	High-pressure polymorphs of gadolinium orthovanadate: X-ray diffraction, Raman spectroscopy, and ab initio calculations. 2019 , 100,	9

437	Interaction mechanisms between organic and inorganic phases in calcium silicate hydrates/poly(vinyl alcohol) composites. 2019 , 125, 105891	17
436	Carbon versus Other Light Elements in Earth's Core. 2019 , 40-65	2
435	Origin and Early Differentiation of Carbon and Associated Life-Essential Volatile Elements on Earth. 2019 , 4-39	9
434	Elastic constants of single-crystal Pt measured up to 20 GPa based on inelastic X-ray scattering: Implication for the establishment of an equation of state. 2019 , 351, 236-242	5
433	Polyamorphic transition in a transition metal based metallic glass under high pressure. 2019 , 99,	6
432	Elastic properties of liquid and glassy propane-based alcohols under high pressure: the increasing role of hydrogen bonds in a homologous family. 2019 , 21, 2665-2672	6
431	Determination of the accuracy and reliability of molecular dynamics simulations in estimating the melting point of iron: Roles of interaction potentials and initial system configurations. 2019 , 290, 111204	7
430	Electronic correlations in dense iron: from moderate pressure to Earth's core conditions. 2019 , 31, 373001	3
429	Low viscosity of the Earth's inner core. 2019 , 10, 2483	16
428	The Orson Anderson Era of Mineral Physics at Lamont in the 1960s. 2019 , 9, 342	4
427	Evidence for Fe-Si-O liquid immiscibility at deep Earth pressures. 2019 , 116, 10238-10243	16
426	Investigation of the crystal structure of polymorphic KNbO ₃ nanowires by pressure. 2019 , 9, 045207	
425	First-Principles Analysis of Vibrational Properties of Type II SiGe Alloy Clathrates. 2019 , 9,	0
424	Study of thermo-elastic and lattice dynamics properties of half-Heusler compounds XMgAl (X = Li, Na) by computational investigations. 2019 , 33, 1950093	3
423	High-pressure phase transformations in NdVO under hydrostatic, conditions: a structural powder x-ray diffraction study. 2019 , 31, 235401	10
422	Liquid Iron Equation of State to the Terapascal Regime From Ab Initio Simulations. 2019 , 124, 3350-3364	13
421	Study of elastic, structural, electronic, magnetic, and topological properties of β -Fe ₂ C carbide under pressure. 2019 , 131, 196-212	4
420	First-Principles Investigation on Type-II Aluminum-Substituted Ternary and Quaternary Clathrate Semiconductors R ₈ Al ₈ Si ₁₂₈ (R = Cs, Rb), Cs ₈ Na ₁₆ Al ₂₄ Si ₁₁₂ . 2019 , 9, 125	0

419	Velocity-Density Systematics of Fe-5wt%Si: Constraints on Si Content in the Earth's Inner Core. 2019 , 124, 3436-3447	12
418	Thermoelastic properties of deuterated melamine, C ₃ N ₆ D ₆ , between 4.2B20 K at 5 kPa and between 0.1B.0 GPa at 295 K from neutron powder diffraction and DFT calculations. 2019 , 39, 160-178	2
417	Phase relations in the system FeNiSi to 200 GPa and 3900 K and implications for Earth's core. 2019 , 512, 83-88	14
416	Rapid Prediction of Anisotropic Lattice Thermal Conductivity: Application to Layered Materials. 2019 , 31, 2048-2057	13
415	Structure change of monoclinic ZrO baddeleyite involving softenings of bulk modulus and atom vibrations. 2019 , 75, 742-749	2
414	Monoclinic-tetragonal-monoclinic phase transitions in EuBiVO under pressure. 2019 , 31, 485401	7
413	Thermal Equation of State of Fe ₃ C to 327 GPa and Carbon in the Core. 2019 , 9, 744	2
412	Theoretical Studies on the Geometrical and Electronic Structures of C-Doped ZnO under High Pressure. 2019 , 93, 2407-2413	1
411	Pressure-induced polymorphism in SrB ₆ and deformation mechanisms of covalent networks. 2019 , 100,	5
410	Static compression of Fe ₄ N to 77 GPa and its implications for nitrogen storage in the deep Earth. 2019 , 104, 1781-1787	5
409	Short- and Intermediate-Range Structure and Dynamics of Fe-Ni-C Liquid Under Compression. 2019 , 7,	5
408	Carbon Partitioning Between the Earth's Inner and Outer Core. 2019 , 124, 12812-12824	12
407	IronMagnesium compounds under high pressure. 2019 , 43, 17403-17407	2
406	LiCrO ₂ Under Pressure: In-Situ Structural and Vibrational Studies. 2019 , 9, 2	4
405	Pre-mission InSights on the Interior of Mars. 2019 , 215, 1	61
404	Thermodynamics with the GrEisen parameter: Fundamentals and applications to high pressure physics and geophysics. 2019 , 286, 42-68	23
403	Nitrogen Content in the Earth's Outer Core. 2019 , 46, 89-98	7
402	Electrical resistivity of fcc phase iron hydrides at high pressures and temperatures. 2019 , 351, 147-153	14

401	Increase of the oxygen vacancy component in bridgmanite with temperature. 2019 , 505, 141-151	10
400	Computational investigations of XMgGa (X = Li, Na) half Heusler compounds for thermo-elastic and vibrational properties. 2019 , 554, 102-106	7
399	Abundant polymorphic transitions in the Al _{0.6} CoCrFeNi high-entropy alloy. 2019 , 8, 1-9	20
398	Polymorphs of ZnV ₂ O ₆ under Pressure: A First-Principle Investigation. 2019 , 123, 3239-3253	11
397	Measurement of the temperature distribution on the surface of the laser heated specimen in a diamond anvil cell system by the tandem imaging acousto-optical filter. 2019 , 39, 131-149	9
396	High pressure synchrotron x-ray diffraction study of the Mn _{0.94} Ti _{0.06} CoGe alloy. 2019 , 554, 5-8	0
395	Phase transition, mechanical stability and optical response of MnSe: Pressure effect. 2019 , 553, 6-10	2
394	Modification of poly(ethylene glycol) on the microstructure and mechanical properties of calcium silicate hydrates. 2019 , 115, 20-30	27
393	Partitioning of C into ϵ -carbides by Si addition and its effect on the initial deformation mechanism of Fe-Mn-Al-C lightweight steels. 2019 , 775, 554-564	19
392	Fluid Dynamics of Earth's Core: Geodynamo, Inner Core Dynamics, Core Formation. 2020 , 129-212	1
391	Enlightening the stable ferromagnetic phase of SrAO ₃ (A= Cr, Fe and Co) compounds using spin polarized quantum mechanical approach. 2020 , 63, 84-91	10
390	Influence of Point Source on Love-Type Waves in Anisotropic Layer Overlying Viscoelastic FGM Half-Space: Green's Function Approach. 2020 , 20, 04019141	4
389	Machine learning models for the prediction of energy, forces, and stresses for Platinum. 2020 , 174, 109483	12
388	High-pressure responses of alkali metal hydrogen carbonates, RbHCO ₃ and CsHCO ₃ : Findings of new phases and unique compressional behavior. 2020 , 283, 121139	2
387	Ab initio compressibility of metastable low albite: revealing a lambda-type singularity at pressures of the Earth's upper mantle. 2020 , 47, 1	0
386	The Role of Redox on Bridgmanite Crystal Chemistry and Calcium Speciation in the Lower Mantle. 2020 , 125, e2020JB020783	2
385	Elasticity of single-crystal NaCl under high-pressure: simultaneous measurement of x-ray inelastic scattering and diffraction. 2020 , 40, 465-477	1
384	The signal of outermost-core stratification in body-wave and normal-mode data. 2020 , 223, 1338-1354	4

383	High-pressure Raman scattering and x-ray diffraction studies of MgTa ₂ O ₆ . 2020 , 10, 065324	4
382	Microscopic insight into the structural transition of single crystal iron under the ramp wave loading. 2020 , 182, 109772	1
381	Sound Velocity of Liquid Fe ₂ P at High Pressure. 2020 , 257, 2000171	0
380	New pressure-induced phase transition to Co ₂ Si-type Fe ₂ P. 2020 , 105, 1752-1755	0
379	Mechanical behavior and phase change of alkali-silica reaction products under hydrostatic compression. 2020 , 76, 674-682	9
378	Experimental elasticity of Earth's deep mantle. 2020 , 1, 455-469	7
377	Spin Transitions and Compressibility of β -Fe ₇ N ₃ and β -Fe ₄ N: Implications for Iron Alloys in Terrestrial Planet Cores. 2020 , 125, e2020JB020660	2
376	Thermal equation of state of post-aragonite CaCO ₃ -Pmmn. 2020 , 105, 1365-1374	0
375	Thermal Pressure in the Laser-Heated Diamond Anvil Cell: A Quantitative Study and Implications for the Density Versus Mineralogy Correlation of the Mantle. 2020 , 125, e2020JB020006	2
374	Thermoelastic properties of tungsten at simultaneous high pressure and temperature. 2020 , 128, 105105	2
373	Pressure-stabilized divalent ozonide CaO and its impact on Earth's oxygen cycles. 2020 , 11, 4702	3
372	Density and sound velocity of liquid Fe-S alloys at Earth's outer core P-T conditions. 2020 , 105, 1349-1354	2
371	Pressure-induced crystallization of an amorphous martensite alloy. 2020 , 128, 085901	
370	Doping by design: finding new n-type dopable ABX ₄ Zintl phases for thermoelectrics. 2020 , 8, 25306-25315	5
369	New n-Type Zintl Phases for Thermoelectrics: Discovery, Structural Characterization, and Band Engineering of the Compounds A ₂ CdP ₂ (A = Sr, Ba, Eu). 2020 , 32, 10697-10707	12
368	Earth tomography with atmospheric neutrino oscillations. 2020 , 80, 1	0
367	Phase Stability in Nickel Phosphides at High Pressures. 2020 , 4, 1978-1984	2
366	Exploring the role of electronic structure on photo-catalytic behavior of carbon-nitride polymorphs. 2020 , 168, 125-134	11

365	Effects of Composition, Pressure, and Temperature on the Elastic Properties of SiO ₂ -TiO ₂ Glasses: An Integrated Ultrasonic and Brillouin Study. 2020 , 10, 481	1
364	Hugoniot equation of state of cementite (Fe ₃ C) up to 250 GPa and its geophysical implications. 2020 , 306, 106506	1
363	Review on the exploration of condensed carbon formation mechanism in detonation products. 2020 , 10, 050701	4
362	Computational discovery of promising new n-type dopable ABX ₂ Zintl thermoelectric materials. 2020 , 7, 1809-1818	14
361	Silicon-Depleted Present-Day Earth's Outer Core Revealed by Sound Velocity Measurements of Liquid Fe-Si Alloy. 2020 , 125, e2020JB019399	5
360	A combined machine learning and density functional theory study of binary Ti-Nb and Ti-Zr alloys: Stability and Young's modulus. 2020 , 184, 109830	3
359	Room-temperature compression and equation of state of body-centered cubic zirconium. 2020 , 32, 12LT02	4
358	Melting Curve and Phase Relations of Fe-Ni Alloys: Implications for the Earth's Core Composition. 2020 , 47, e2020GL088169	13
357	Pressure dependence of Si diffusion in δ -Fe. 2020 , 105, 319-324	1
356	The carbon content of Earth and its core. 2020 , 117, 8743-8749	25
355	Do SnI molecules deform on heating and pressurization in the low-pressure crystalline phase?. 2020 , 32, 055401	1
354	Axial Compressibility and Thermal Equation of State of Hcp Fe-Bwt% Ni-Bwt% Si. 2020 , 10, 98	4
353	Analysis of Data on Zero and Negative Thermal Expansion Coefficients of Materials. 2020 , 58, 173-183	2
352	Strong Sequestration of Hydrogen Into the Earth's Core During Planetary Differentiation. 2020 , 47, e2020GL088303	13
351	Theoretical study of bulk and nanomaterials under high pressure. 2020 ,	
350	The relative contributions of scattering and viscoelasticity to the attenuation of S waves in Earth's mantle. 2020 , 11, 161-171	
349	Si-Mg isotopes in enstatite chondrites and accretion of reduced planetary bodies. 2020 , 10, 1273	4
348	The Interior and Atmosphere of the Habitable-zone Exoplanet K2-18b. 2020 , 891, L7	30

347	Computational analysis to study the effect of infusion of Tetracyanoquinodimethane in zinc based metal-organic framework. 2020 , 7, 015001	2
346	Density of NaAlSi ₂ O ₆ Melt at High Pressure and Temperature Measured by In-Situ X-ray Microtomography. 2020 , 10, 161	1
345	Tuning to more compressible phase in TiZrHfNb high entropy alloy by pressure. 2020 , 116, 031901	3
344	The composition of Mars. 2020 , 273, 137-162	61
343	Local-Basis-Function Equation of State for Ice VII to 450 GPa at 300 K. 2020 , 10, 92	5
342	Magnetic phase diagram of e ⁻ -FeH. 2020 , 101,	2
341	Compression experiments to 126 GPa and 2500 K and thermal equation of state of Fe ₃ S: Implications for sulphur in the Earth's core. 2020 , 534, 116080	4
340	Experimental and Simulation Efforts in the Astrobiological Exploration of Exooceans. 2020 , 216, 9	11
339	Structure and Behavior of the Ni End-Member Schreibersite Ni ₃ P under Compression to 50 GPa. 2020 , 10, 306	2
338	Elastic, electronic, optical and thermodynamic properties of Ba ₃ Ca ₂ Si ₂ N ₆ semiconductor: First-principles predictions. 2020 , 589, 412213	50
337	Reversibility of the structural transition in single crystal iron driven by uniaxial and triaxial strains: Atomistic study. 2021 , 191, 106064	4
336	Core Mantle Interactions. 2021 , 270-277	
335	Composition of the Earth's Core. 2021 , 150-163	1
334	Equation of State of TiN at High Pressures and Temperatures: A Possible Host for Nitrogen in Planetary Mantles. 2021 , 126, e2020JB020074	
333	Volume compression of period 4 elements: Zn, Ge, As, and Se above 200 GPa: Ordering of atomic volume by atomic number. 2021 , 129, 025901	3
332	Density-functional study of pressure-induced phase transitions and electronic properties of ZnVO.. 2021 , 11, 10401-10415	3
331	Encyclopedia of Solid Earth Geophysics. 2021 , 160-164	
330	Equation of State for Fe-9.0 wt% O up to 246 GPa: Implications for Oxygen in the Earth's Outer Core. 2021 , 126, e2020JB021056	1

329	The phase diagram of Ti-6Al-4V at high-pressures and high-temperatures. 2021 ,	5
328	Density of Fe-Ni-C Liquids at High Pressures and Implications for Liquid Cores of Earth and the Moon. 2021 , 126, e2020JB021089	2
327	Equation of State Measurements on Iron Near the Melting Curve at Planetary Core Conditions by Shock and Ramp Compressions. 2021 , 126, e2020JB020008	1
326	Equation of State and Entropy Theory Approach to Thermodynamic Scaling in Polymeric Glass-Forming Liquids. 2021 , 54, 3247-3269	8
325	High-Pressure Deformation of Iron-Nickel-Silicon Alloys and Implications for Earth's Inner Core. 2021 , 126, e2020JB021077	5
324	Pressure-induced spin crossover in a Fe ₇₈ Si ₉ B ₁₃ metallic glass. 2021 , 129, 165901	0
323	PVT Equation of State of Iridium Up to 80 GPa and 3100 K. 2021 , 11, 452	15
322	The trials and tribulations of the Hawaii hot spot model. 2021 , 215, 103544	2
321	Polymorphism of praseodymium orthovanadate under high pressure. 2021 , 103,	0
320	Impact of Torsional Waves in Dry Sandy Desert with Sand Dunes. 2021 , 9, 1211	0
319	A regime diagram for the slurry F-layer at the base of Earth's outer core. 2021 , 560, 116791	3
318	Concentration discontinuity of alkalis at high pressures. 2021 , 395, 127207	3
317	Structural transitions of 4:1 methanol-ethanol mixture and silicone oil under high pressure. 2021 , 6, 038402	7
316	Structural motifs and bonding in two families of boron structures predicted at megabar pressures. 2021 , 5,	3
315	Stagnant Slabs and Their Return Flows From Finite-Frequency Tomography of the 410-km and 660-km Discontinuities. 2021 , 126, e2020JB021099	1
314	Improving the photocatalytic activity of tetragonal BiVO ₄ with zircon-type structure through W doping; Ab initio calculations. 2021 , 264, 124439	3
313	Electrical conductivity and temperature of the Earth's mantle inferred from Bayesian inversion of Swarm vector magnetic data. 2021 , 314, 106702	0
312	Prediction of crystal structures and motifs in the Fe-Mg-O system at Earth's core pressures.	

311	Pressure-induced disordering of site occupation in iron–nickel nitrides. 2021 , 6, 038401	4
310	Synthesis and Compressibility of Novel Nickel Carbide at Pressures of Earth’s Outer Core. 2021 , 11, 516	2
309	Constraining Jumps in Density and Elastic Properties at the 660 km Discontinuity Using Normal Mode Data via the Backus-Gilbert Method. 2021 , 48, e2020GL092217	3
308	Behavior of light elements in iron-silicate-water-sulfur system during early Earth’s evolution. 2021 , 11, 12632	3
307	Seismic Wave Velocities in Earth’s Mantle from Mineral Elasticity. 2021 , 51-95	2
306	How deep is the ocean? Exploring the phase structure of water-rich sub-Neptunes. 2021 , 505, 3414-3432	4
305	On the Probability That a Rocky Planet’s Composition Reflects Its Host Star. 2021 , 2, 113	7
304	The crystal structure of Fe ₂ S at 90 GPa based on single-crystal X-ray diffraction techniques. 2021 ,	0
303	Elastic properties of confined fluids from molecular modeling to ultrasonic experiments on porous solids. 2021 , 8, 021317	1
302	First principle study on the mechanical response of ZrC and ZrN at high-pressure conditions: anisotropy perspective. 2021 , 47, 1135-1148	2
301	Una extensión teórica aplicada a los líquidos puros de cadena larga en la fase líquida para analizar su comportamiento en la fase sólida. 2021 , 34,	
300	Calculating detonation performance of explosives by VLWR thermodynamics code introduced with universal VINET equation of state. 2021 ,	
299	Bulk modulus of second-order pressure derivative for nanomaterials. 2021 , 44, 1	3
298	Synthesis and compression study of orthorhombic Fe ₇ (C, Si) ₃ : a possible constituent of the Earth’s core. 2021 , 41, 290-305	0
297	Influence of shear wave on the HCP nucleation in BCC iron under oblique shock conditions. 2021 , 158, 103878	1
296	Hadean geodynamics and the nature of early continental crust. 2021 , 359, 106178	18
295	First-principles calculations of thermodynamic properties of Ni sulfides in the upper mantle. 2021 , 48, 1	0
294	Synthesis of calcium polysulfides at high pressures. 2021 , 104,	0

293	Pressure-Induced Polymorphic Transformations of Ethylenediamine Bisborane. 2021 , 125, 18614-18622	2
292	Habitability and Biosignatures of Hycean Worlds. 2021 , 918, 1	3
291	Light elements in the Earth's core. 2021 , 2, 645-658	14
290	Earth's core could be the largest terrestrial carbon reservoir. 2021 , 2,	2
289	Half-Metallic CoO ₂ and Semiconducting NiO ₂ at High Pressures. 2100233	
288	Free energies of iron phases at high pressure and temperature: Molecular dynamics study. 2021 , 104,	3
287	Electronic, elastic, and topological behavior of MgH ₂ , MgTiH ₄ , and TiH ₂ under pressure. 2021 , 28, 102639	
286	MechElastic: A Python library for analysis of mechanical and elastic properties of bulk and 2D materials. 2021 , 267, 108068	6
285	Behavior of copper under high pressure: Experimental and theoretical analyses. 2021 , 31, 93-98	
284	Antipodal seismic reflections upon shear wave velocity structures within Earth's inner core. 2021 , 321, 106802	1
283	Pressure dependence of thermodynamic interaction parameters for binary solid solution phases: An atomistic simulation study. 2021 , 75, 102342	1
282	Investigation of electronic, optical and thermoelectric properties of perovskite BaTMO ₃ (TM=Zr, Hf): First principles calculations. 2021 , 887, 161361	1
281	Sound Velocities of Iron-Nickel (Fe ₉₀ Ni ₁₀) Alloy up to 8 GPa and 773 K: The Effect of Nickel on the Elastic Properties of bcc-Iron at High P-T. 2021 ,	
280	A planetary system with two transiting mini-Neptunes near the radius valley transition around the bright M dwarf TOI-776. 2021 , 645, A41	7
279	Encyclopedia of Solid Earth Geophysics. 2021 , 176-183	
278	Encyclopedia of Solid Earth Geophysics. 2021 , 893-906	1
277	Encyclopedia of Geochemistry. 1999 , 6-10	0
276	Seismic Anisotropy Tomography. 2002 , 191-232	2

275	Equation of State and Possible Critical Phase Transitions in MgSiO ₃ Perovskite at Lower-Mantle Conditions. 1988 , 91-112	10
274	Reduction of Mantle and Core Properties to a Standard State by Adiabatic Decompression. 1986 , 275-309	28
273	A Theoretical Model of Mixed Valence Electronic and Elastic Properties. 1977 , 229-246	2
272	A Review of Solute Effects on the Elastic Moduli of BCC Transition Metals. 1975 , 199-225	2
271	Geophysical Applications of High Pressure Research. 1979 , 1033-1048	2
270	Status of Equation of State of Solids. 1979 , 19-32	1
269	Phase Transitions in Group III \AA and II \AA Semiconductors at High Pressure. 1979 , 274-286	2
268	The Origin of the Moon and the Core of the Earth. 1966 , 224-233	3
267	Encyclopedia of Solid Earth Geophysics. 2020 , 1-6	1
266	Nuclear Resonance Vibrational Spectroscopy. 2020 , 257-278	3
265	Encyclopedia of Geochemistry. 2017 , 1-13	1
264	Planetary Interiors. 1959 , 419-448	6
263	Geophysical Aspects of Structure and Composition of the Earth. 1969 , 134-226	8
262	Equations of State and Their Applications in Geosciences. 2010 , 135-145	1
261	Mean-field methods in mantle convection. 1988 , 227-264	16
260	Infinite Prandtl number spherical-shell convection. 1988 , 265-290	11
259	Thermochemical Properties of Synthetic High-Pressure Compounds Relevant to the Earth's Mantle. 1982 , 441-464	100
258	The Elasticity of Periclase to 3 GPa and Some Geophysical Implications. 1982 , 93-113	124

257	Chemical Boundaries in the Mantle. 1991 , 379-401	3
256	Water in the Earth's Interior: Distribution and Origin. 2017 , 83-150	1
255	RECENT EVIDENCE CONCERNING THE STRUCTURE AND COMPOSITION OF THE EARTH'S MANTLE. 1965 , 1-131	9
254	OROGENIC FOLD-BELTS AND A HYPOTHESIS OF EARTH EVOLUTION. 1966 , 1-114	7
253	PHASE TRANSITIONS IN RUTILE-TYPE STRUCTURES. 1977 , 209-218	12
252	PHYSICS AND CHEMISTRY OF IRON AND POTASSIUM AT LOWER-MANTLE AND CORE PRESSURES. 1977 , 367-387	17
251	Origin of the Earth. 1972 , 4, 7-29	4
250	The System $\text{MgO}-\text{FeO}-\text{SiO}_2$ at High Pressures and Temperatures [Phase Equilibria and Elastic Properties. 1972 , 4, 161-187	4
249	The State of Mantle Minerals. 1972 , 189-219	2
248	Melting Temperatures in the Earth's Mantle . 1972 , 4, 221-232	4
247	The Role of Experimental Physical Acoustics in Geophysics. 1972 , 4, 521-540	1
246	STATIC P-T-V MEASUREMENTS ON MgO : COMPARISON WITH SHOCK WAVE DATA. 1984 , 57-60	44
245	Ab initio Pseudopotentials and the Structural Properties of Semiconductors. 1992 , 59-111	4
244	Acoustoelasticity of Elastic Solids. 2001 , 441-468	2
243	Elasticity of Oxides and Ionics. 2001 , 31-56	2
242	Elastic Properties of Minerals and Planetary Objects. 2001 , 325-376	5
241	HIGH-PRESSURE SURFACE SCIENCE. 2001 , 195-237	5
240	Simultaneous equation of state, pressure calibration and sound velocity measurements to lower mantle pressures using multi-anvil apparatus. 2005 , 49-66	7

239	Density measurements of molten materials at high pressure using synchrotron X-ray radiography: melting volume of FeS. 2005 , 185-194	2
238	Chemistry at extreme conditions: approaching the Earth's major interface. 2005 , 289-314	1
237	Palaeomagnetic Evidence for Continental Drift and its Geophysical Cause. 1962 , 1-40	28
236	Thermal Convection in the Earth's Mantle. 1962 , 145-176	19
235	The Theory of Convection in Spherical Shells and its Application to the Problem of Thermal Convection in the Earth's Mantle. 1962 , 3, 177-194	4
234	Mountain-Building Hypotheses. 1962 , 3, 195-234	6
233	The Exoplanet Handbook. 2018 ,	39
232	Minerals: Their Constitution and Origin. 2016 ,	18
231	Minerals: Their Constitution and Origin. 2016 , xxi-xxii	1
230	Minerals: Their Constitution and Origin. 2004 ,	100
229	Once Again on Preliminary Reference Earth Model. 2020 , 7, e2019EA001007	2
228	Density and Elasticity of Model Upper Mantle Compositions and their Implications for Whole Mantle Structure. 111-130	10
227	Synthesis of new nickel hydrides at high pressure. 2018 , 2,	10
226	High-pressure synthesis, crystal growth, and compression behavior of hexagonal CrN ₂ having one-dimensionally aligned nitrogen dimer. 2019 , 3,	9
225	Crystallization temperatures of tholeiite parental liquids: Implications for the existence of thermally driven mantle plumes. 2007 , 235-260	12
224	Electronic Structure and X-Ray Photoelectron Spectra of YNi ₄ B Compound. 2003 , 104, 487-494	4
223	Thermodynamics of deep geophysical media. 1999 , 1, 11-49	3
222	Origin of Earth's oceans: An assessment of the total amount, history and supply of water. 2016 , 50, 27-42	45

221	Development of dynamic high-pressure techniques in Russia. 1999 , 169, 323	24
220	Hydrogen at high pressure. 1999 , 169, 1223	22
219	Shock compression of condensed materials (laboratory studies). 2001 , 171, 387	12
218	Fe- ⁵⁴ Cr and Fe- ⁵⁴ H systems at pressures of the Earth's inner core. 2012 , 182, 521	9
217	High-pressure behavior of the Fe ₃ S system and composition of the Earth's inner core. 2017 , 187, 1105-1113	3
216	A New Reference for the Thermal Equation of State of Iron. 2020 , 10, 100	6
215	A Simple Derivation of the Birch-Murnaghan Equations of State (EOSs) and Comparison with EOSs Derived from Other Definitions of Finite Strain. 2019 , 9, 745	29
214	Exploration of the Earth's Interior Using Kawai-Type Apparatus. 2004 , 14, 158-166	4
213	Atomistic simulation of the bcc/fcc transition in iron driven by uniaxial strain. 2010 , 59, 4888	5
212	The World Hidden Beneath Us: Structure and Composition of the Earth. 2021 , 1-18	1
211	Pressure-induced C230/C37 transition and compression behavior of orthorhombic Fe ₂ S to Earth's core pressures and high temperatures. 2021 ,	1
210	Representation of elasticity in the Earth. 2002 , 87-107	
209	Miscellaneous developments. 2002 , 322-351	
208	Evidence on compressibility in the Earth. 2002 , 184-226	
207	The Texture of Rocks in the Earth's Deep Interior: Part II. Application of Texturing to the Deep Earth. 2004 , 1-11	1
206	Shock Waves and Polymorphic Phase Transformations in Solids. 2004 , 197-223	
205	Preface. 2007 , vii-viii	
204	Development of High-Pressure and High-Temperature In Situ X-ray Diffraction Experiments and the Study of the Earth's Deep Materials. 2008 , 18, 160-169	

- 203 Inseparability of science history and discovery. **2010**, 1, 25-41 o
- 202 Crystal Structure of Iron at the Center of the Earth. **2011**, 21, 91-97
- 201 Possible Role of Carbon and Hydrogen in the Earth's Core. **2011**, 21, 98-108
- 200 A Large Strain Isotropic Elasticity Model Based on Molecular Dynamics Simulations of a Metallic Glass. **2011**, 281-302
- 199 Research on softening of longitudinal mode under high pressure and equation of state of -Ce. **2012**, 61, 116401
- 198 First principles studies of phase transition and mechanical properties of uranium. **2013**, 62, 176104 1
- 197 Reine Stoffe in kondensierten Phasen. **2013**, 378-746
- 196 Composition and Structure of the Earth's Interior. **2014**, 375-427
- 195 Study of the Earth's Deep Interior and Crystallography. **2014**, 56, 166-172
- 194 Chemical Composition of the Solar System. **1967**, 9, 197-274
- 193 Applications of Equations of State to the Physics of the Earth's Interior. **1971**, 207-235
- 192 Construction of Earth Models. **1974**, 13-21
- 191 Earth models of type A. **1975**, 152-183
- 190 Some second approximations. **1975**, 227-260
- 189 Anomaly in the Elastic Properties of a Semiconductor under Pressure. **1976**, 305-308
- 188 THE CURRENT STATUS OF SPECULATIONS ON THE COMPOSITION OF THE CORE OF THE EARTH. **1978**, 27-50
- 187 An elastic block model for the relationship between the composition and the cell volume in the humites. **1979**, 9, 319-338
- 186 Upper Mantle Velocity Structure in the Tonga-Kermadec Island Arc Region. **1979**, 155-180

185 Physicochemical Model of the Formation of the Earth's Core. **1979**, 1277-1286

184 Das System Erde/Mond. **1979**, 33-67

183 Gravitational Heating of Jovian Satellites by Tidal Friction. **1982**, 117-121

182 SPECIAL APPLICATIONS. **1984**, 194-235

181 Equations of State and Geophysical Equations of State. **1984**, 3-65

180 Large Scale Computations in Solid State Physics. **1990**, 83-97

179 Geophysical and Geological Parameters Being Important for Modeling. **1991**, 57-69

178 Predicting New Hard Materials. **1996**, 531-543

177 An Improved Technique for Determining the Equation of State of Concrete and Geological Materials. **1997**, 1767-1774

176 REFERENCES. **1999**, 377-396

175 Equations of State. **1999**, 19-42

1

174 Validity of High Pressure Isothermal Equation of State for Carbon Nanotubes. **2015**, 9, 11-20

O

173 Incompressible and Compressible Analytical Viscoelastic Models. **2016**, 53-85

172 Minerals: Their Constitution and Origin. **2016**, 581-581

171 Minerals: Their Constitution and Origin. **2016**, xiii-xvi

170 Minerals: Their Constitution and Origin. **2016**, 590-602

169 Minerals: Their Constitution and Origin. **2016**, 574-574

168 Minerals: Their Constitution and Origin. **2016**, 462-472

167 Minerals: Their Constitution and Origin. **2016**, 270-283

166 Minerals: Their Constitution and Origin. **2016**, 133-148

165 Minerals: Their Constitution and Origin. **2016**, 118-130

164 Minerals: Their Constitution and Origin. **2016**, 325-335

163 Minerals with very low birefringence (up to white interference colors in 30 μ m thin sections), sorted according to birefringence. **2016**, 577-577

162 Minerals: Their Constitution and Origin. **2016**, 225-250

161 Minerals: Their Constitution and Origin. **2016**, 473-478

160 Minerals: Their Constitution and Origin. **2016**, 377-395

159 Minerals: Their Constitution and Origin. **2016**, 350-360

158 Sheet silicates. Weathering of silicate rocks. **2016**, 418-436

157 Minerals: Their Constitution and Origin. **2016**, 61-80

156 Minerals: Their Constitution and Origin. **2016**, 217-224

155 Minerals: Their Constitution and Origin. **2016**, 295-316

154 Minerals: Their Constitution and Origin. **2016**, 578-578

153 Minerals: Their Constitution and Origin. **2016**, 12-30

152 Nonmetallic luster, polyhedral cleavage (three systems), sorted according to hardness. **2016**, 570-571

151 Minerals: Their Constitution and Origin. **2016**, 49-58

150 Minerals: Their Constitution and Origin. **2016**, 31-36

149 Minerals: Their Constitution and Origin. **2016**, 582-589

148 Minerals: Their Constitution and Origin. **2016**, 261-269

147 Minerals: Their Constitution and Origin. **2016**, 563-563

146 Minerals: Their Constitution and Origin. **2016**, 189-216

145 Minerals: Their Constitution and Origin. **2016**, 518-525

144 Minerals: Their Constitution and Origin. **2016**, 37-41

143 Minerals: Their Constitution and Origin. **2016**, 481-500

142 Minerals: Their Constitution and Origin. **2016**, 579-580

141 Minerals: Their Constitution and Origin. **2016**, 575-575

140 Minerals: Their Constitution and Origin. **2016**, 317-324

139 Minerals: Their Constitution and Origin. **2016**, 564-564

138 Minerals: Their Constitution and Origin. **2016**, 3-11

137 Laboratory Astrophysics with Large-Scale Lasers: Laser Astrophysics. **2016**, 44, 577

136 Minerals: Their Constitution and Origin. **2016**, 336-349

135 Minerals: Their Constitution and Origin. **2016**, 572-573

134 Viscoelastic Relaxation Theory, Momentum and Poisson Equations. **2016**, 1-51

133 Minerals: Their Constitution and Origin. **2016**, 166-188

132 Minerals: Their Constitution and Origin. **2016**, 42-48

131 Minerals: Their Constitution and Origin. **2016**, 565-565

130 Minerals: Their Constitution and Origin. **2016**, 536-550

129 Minerals: Their Constitution and Origin. **2016**, 251-258

128 Minerals: Their Constitution and Origin. **2016**,

127 Minerals: Their Constitution and Origin. **2016**, 501-517

126 Minerals: Their Constitution and Origin. **2016**, 108-117

125 Minerals: Their Constitution and Origin. **2016**, 526-535

124 Minerals: Their Constitution and Origin. **2016**, 284-292

123 Minerals: Their Constitution and Origin. **2016**, 149-165

122 Minerals: Their Constitution and Origin. **2016**, 576-576

121 Minerals: Their Constitution and Origin. **2016**, 437-461

120 Sulfides and related minerals. Hydrothermal processes. **2016**, 361-376

119 Orthosilicates and ring silicates. Metamorphic mineral assemblages. **2016**, 396-417

118 Minerals: Their Constitution and Origin. **2016**, 568-569

117 Minerals: Their Constitution and Origin. **2016**, 566-567

116 Minerals: Their Constitution and Origin. **2016**, 551-562

115 Crystal symmetries: point-groups and space-groups. **2016**, 81-107

114 Thermal Transport in Micro- and Nanoscale Systems. **2017**, 1-51

- 113 Encyclopedia of Geochemistry. **2018**, 1-11 1
- 112 The Texture of Rocks in the Earth's Deep Interior: Part II Application of Texturing to the Deep Earth. **2018**,
- 111 Encyclopedia of Geochemistry. **2018**, 1186-1197 1
- 110 Third-Order Fuchs Elastic Constants and the Pressure Derivatives of the Second-Order Elastic Constants for Compressed Ne and Ar in the Model of Deformable Atoms. **2018**, 225-237
- 109 Encyclopedia of Geochemistry. **2018**, 418-429
- 108 Thermal expansibility and compressibility of prehnite and its geological implications. **2019**, 35, 146-152 1
- 107 Ab Initio Theory of the Equations of State for Light Rare-Gas Crystals. **2019**, 213-229
- 106 A New Modified Form of Murnaghan Thermodynamic Equation of State. **2020**, 841-848
- 105 Encyclopedia of Solid Earth Geophysics. **2020**, 1-14
- 104 Earth's Interior. **2020**, 549-571
- 103 The electronic structure, phase transition, elastic, thermodynamic, and thermoelectric properties of FeRh: high-temperature and high-pressure study. **2020**, 75, 789-801 0
- 102 Multi-phase equation of state of ultrapure hafnium to 120 GPa. **2021**, 34, 0
- 101 Effects of Hydrogen on the Phase Relations in Fe-FeS at Pressures of Mars-Sized Bodies. **2021**, 126, e2021JE006942
- 100 Anisotropic Interlayer Force Field for Transition Metal Dichalcogenides: The Case of Molybdenum Disulfide. **2021**, 17, 7237-7245 3
- 99 Atomic transport properties of liquid iron at conditions of planetary cores. **2021**, 155, 194505 1
- 98 Encyclopedia of Solid Earth Geophysics. **2020**, 1-8
- 97 Effect of defects on the phase transition of Al_{0.1}CoCrFeNi high-entropy alloy under high pressure. **2022**, 140, 107388 2
- 96 Sound velocity and compressibility of melts along the hedenbergite (CaFeSi₂O₆)-diopside (CaMgSi₂O₆) join at high pressure: Implications for stability and seismic signature of Fe-rich melts in the mantle. **2022**, 577, 117250 1

- 95 Thermal Pressure, Earth's Interior and Adiabatic Processes. **2020**, 175-215
- 94 Effect of the Heterogeneity, Initial Stress and Viscosity on the Propagation Characteristics of Shear Wave. **2020**, 137-148
- 93 Critical Phenomenon and Equations of States. **2020**, 101-130
- 92 Encyclopedia of Solid Earth Geophysics. **2020**, 1-8 1
- 91 Molecular Dynamics in Polymer Science. **2021**, 297-316
- 90 2.4.5 The transition zone. 252-253
- 89 2.4.6 The lower mantle. 254-255
- 88 2.4.8 References for 2.4. 257-258
- 87 Seismological Constraints on the Structure of the Earth's Core. **2007**, 31-68
- 86 Elastic softening of bulk modulus of monoclinic HfO₂ under high pressure. **2020**, 117, 182903 3
- 85 Computational design of thermoelectric alloys through optimization of transport and dopability. **2021**, 0
- 84 Automatic measurement and quality control of S3KS-SKKS differential traveltimes and the influence of mantle heterogeneity. 0
- 83 A deep learning potential applied in tobermorite phases and extended to calcium silicate hydrates. **2022**, 152, 106685 9
- 82 Melting phase equilibrium relations in the MgSiO₃-SiO₂ system under high pressures. **2022**, 0
- 81 Study of elastic properties of prototype solids under high pressure. **2022**, 30, e00626 0
- 80 Chemical and physical state of the core. **2022**, 33-73
- 79 Mineral Physics.
- 78 Insights at the neutron irradiation-induced structural homogenization effect of calcium silicate hydrates and degradation mechanism of mechanical properties: a molecular dynamics study. 1-13

- 77 The phase diagrams of beryllium and magnesium oxide at megabar pressures.. **2022**, 0
- 76 Pressure-induced two-dimensional to three-dimensional structural phase transition in 2H-type layered lead iodide PbI₂. **2022**, 120, 052106 4
- 75 The lithophile element budget of Earth's core. 0
- 74 Superionic iron alloys and their seismic velocities in Earth's inner core.. **2022**, 602, 258-262 4
- 73 Equation of states for dense ice up to 80 GPa at low-temperature conditions.. **2022**, 156, 064504
- 72 Shear Properties of Earth's Inner Core. **2022**, 50, 1
- 71 Geoneutrinos and geoscience: an intriguing joint-venture. **2022**, 45, 1-105 0
- 70 New Perspectives on the Exoplanet Radius Gap from a Mathematica Tool and Visualized Water Equation of State. **2021**, 923, 247 1
- 69 Neutron diffraction study of hydrogen site occupancy in Fe_{0.95}Si_{0.05} at 14.7 GPa and 800 K. **2021**, 116, 309-313
- 68 Structural Metamorphosis and Band Dislocation of Trirutile NiTa₂O₆ under Compression. **2022**, 126, 4106-4117 0
- 67 The absence of an effect of nickel on iron isotope fractionation during core formation. **2022**, 0
- 66 The Structure and Elasticity of CaO₃ Under High Pressure by First-Principles Simulation. **2022**, 10,
- 65 Forming planets around stars with non-solar elemental composition. 0
- 64 Internal structures and magnetic moments of rocky planets. Application to the first exoplanets discovered by TESS.
- 63 Effect of Sulfur on Hydrogenation of Metallic Iron and Evolution of the Earth's Core. **2022**, 61, 202-209
- 62 Iron-Carbon Alloy Under Shock Compression: Implications for the Carbon Concentration in Earth's Inner Core. **2022**, 127,
- 61 Reversible linear-compression behavior of free volume in a metallic glass. **2022**, 105, 1
- 60 Structural evolution in a pyrolitic magma ocean under mantle conditions. **2022**, 584, 117473 0

- 59 Re-entrant ferromagnetism at ultrahigh temperatures in epsilon-iron as possible origin of the geomagnetic field. **2022**, 326, 106856
- 58 Short-to-medium range atomic order of Zr-Cu metallic glasses under compression. **2022**, 208, 111345 0
- 57 About the gold properties and the approximations used to calculate high-pressure high-temperature properties. **2022**, 31, e00673 0
- 56 Newtonian gravitation derived by the elastic energy in the Earth's interior. **2022**, 35, 39-41 0
- 55 Transient variation in seismic wave speed points to fast fluid movement in the Earth's outer core. **2022**, 3, 0
- 54 Ab initio simulations of β - and δ -ammonium carbamate ($\text{NH}_4\text{NH}_2\text{CO}_2$), and the thermal expansivity of deuterated δ -ammonium carbamate from 4.2 to 180 K by neutron powder diffraction. **2022**, 78, 1
- 53 Compressional wave velocity for iron hydrides to 100 gigapascals via picosecond acoustics. **2022**, 49, 0
- 52 Thermodynamics of Point Defects in Solids and Relation with the Bulk Properties: Recent Results. **2022**, 12, 686 0
- 51 Structural and electronic properties of the random alloy $\text{Zn}_{0.5}\text{S}_{0.5}$. **2022**, 105, 0
- 50 Elastic properties of body-centered cubic iron in Earth's inner core. **2022**, 105, 1
- 49 On models to describe the volume in the context of establishing high-pressure Gibbs energy databases. **2022**, 78, 102435 2
- 48 Thermodynamic behavior of Na-majorite and khorringite-majorite garnet systems. **2022**, 1-8 0
- 47 Melting phase relations in FeSi at high pressure and implications for Earth's inner core crystallization. **2022**, 12, 2
- 46 Thermodynamic properties of geikielite (MgTiO_3) and ilmenite (FeTiO_3) derived from vibrational methods combined with Raman and infrared spectroscopic data. **2022**, 49, 0
- 45 Experimental evidence supporting an overturned iron-titanium-rich melt layer in the deep lunar interior. 0
- 44 Study of the SH-wave propagation in an MEFR layer bounded by heterogeneous viscoelastic layer and elastic half-space. 0
- 43 Resistivity of solid and liquid FeNiSi with applications to the cores of Earth, Mercury and Venus. **2022**, 12, 0
- 42 FeS_2 identified as a host of sulfur in Earth and planetary cores. **2022**, 593, 117650 1

- 41 Aufbau des Erdinnern. **2022**, 649-675
- 40 Sound velocity measurements of B2-Fe-Ni-Si alloy under high pressure by inelastic X-ray scattering: Implications for the composition of Earth's core. ○
- 39 Towards automatic finite-element methods for geodynamics via Firedrake. **2022**, 15, 5127-5166 2
- 38 Geochemical models of core-mantle differentiation.
- 37 Theoretical investigation of some fundamental physical properties of the ternary nitrides Ca_4SiN_4 and Ca_4GeN_4 under pressure and temperature effect. **2022**, 32, e00711 ○
- 36 High-pressure melting experiments of Fe_3S and a thermodynamic model of the Fe-S liquids for the Earth's core.
- 35 Mechanical properties of hexagonal silicon. **2022**, 220, 114936
- 34 Compositional heterogeneity in the mantle transition zone. **2022**, 3, 533-550
- 33 Single crystal elasticity and equation of state of tantalum up to 54 GPa. **2022**, 132, 055902
- 32 Shear softening of Earth's inner core as indicated by its high Poisson ratio and elastic anisotropy. **2022**,
- 31 Analysis of the First Pressure Derivative of the Isothermal Bulk Modulus using the Brennan-Stacey, Ullmann-Pankov, and Vinet-Redberg Equations of State for MgO and CaO Solids. 487-497
- 30 Hypergravity experiments on multiphase media evolution. ○
- 29 Introduction to special issue. **2022**, 1-7 ○
- 28 Planetary core radii: from Plato towards PLATO. **2022**, 65-178 1
- 27 Elastic Properties of Confined Fluids in Nanopores: An Acoustic-Propagation Model. ○
- 26 Interatomic potentials: achievements and challenges. **2023**, 8, ○
- 25 Effect of Hexagonality on the Pressure-dependent Lattice Dynamics of 4H-SiC. 1
- 24 Structure and dynamics of $\text{Fe}_{90}\text{Si}_{10}$ liquids close to Earth's liquid core conditions. ○

23	Thermal Evolution and Magnetic History of Rocky Planets. 2022 , 938, 131	o
22	Metastable phase of UTe ₂ formed under high pressure above 5 GPa. 2022 , 6,	1
21	Iron-rich Fe-O compounds at Earth's core pressures. 2022 , 100354	1
20	?????????????:1.?????????????. 2022 , 47, 2714	o
19	In-situ X-ray diffraction and radiography of iron-silicate-water-sulfur system simulating behaviors of light elements during early Earth's core-mantle segregation. 2022 , 42, 349-363	o
18	Intrinsic properties and dopability effects on the thermoelectric performance of binary Sn chalcogenides from first principles. 2,	o
17	Effects of alloying chalcopyrite CuTeSe ₂ with Na on the electronic structure and thermoelectric coefficients: DFT investigation. 2022 , 137,	o
16	Propagation of Newtonian gravitation derived by the elastic energy. 2022 , 35, 398-400	o
15	Thermal conductivity of iron and nickel during melting: Implication to the planetary liquid outer core. 2023 , 97,	o
14	Phase Relations of Ni ₂ In-Type and CaC ₂ -Type Structures Relative to Fe ₂ P-Type Structure of Titania at High Pressure: A Comparative Study. 2023 , 13, 9	o
13	Analytical Study of Nanomaterials Under High Pressure. 2022 , 19, 170-176	o
12	Antipodal waveform observations of seismic waves diffracting and refracting at the base of Earth's outer core. 2023 , 336, 106988	o
11	Improved Singum Model Based on Finite Deformation of Crystals with the Thermodynamic Equation of State. 2023 , 149,	o
10	The Nominal Ranges of Rocky Planet Masses, Radii, Surface Gravities, and Bulk Densities. 2023 , 944, 42	o
9	Early Water Delivery to Terrestrial Planet Regions during the Stages of Jupiter's Formation and Migration in the Grand Tack Model. 2023 , 4, 32	o
8	High-pressure equations of state and elastic properties of the hcp-Iron. 2023 , 2426, 012056	o
7	Crystallographic texture formation in Fe-9wt%Si alloy during deformation and phase transition at high pressure. 2023 , 234, 790-806	o
6	Lower shear velocity of HCP-Fe under anisotropic stress from first-principles calculations. 2023 , 37,	o

- 5 Effects of High Pressure on the Bandgap and the $d\bar{d}$ Crystal Field Transitions in Wolframite NiWO_4 . **2023**, 127, 6543-6551 o
- 4 Prediction of a Reentrant Phase Transition Behavior of Cotunnite in Zirconia and Hafnia at High Pressures. **2023**, 45, 10-19 o
- 3 Lattice constants and magnetism of L10-ordered FePt under high pressure. **2023**, 122, 152406 o
- 2 The multi-scale mechanical properties of calcium-silicate-hydrate. **2023**, 105097 o
- 1 Machine learning for shock compression of solids using scarce data. **2023**, 133, o