AgnÃ¨s Dewaele

List of Publications by Year
in descending order

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55 papers	5,339 citations	126907 33 h-index	155660 55 g-index
55 all docs	55 docs citations	55 times ranked	3546 citing authors

#	Article	IF	Citations
1	Equations of state of six metals above94GPa. Physical Review B, 2004, 70, .	3.2	693
2	Melting of Iron at Earthâ€™s Inner Core Boundary Based on Fast X-ray Diffraction. Science, 2013, 340, 464-466.	12.6	486
3	Compression curves of transition metals in the Mbar range: Experiments and projector augmented-wave calculations. Physical Review B, 2008, 78, .	3.2	383
4	Quasihydrostatic Equation of State of Iron above 2ÂMbar. Physical Review Letters, 2006, 97, 215504.	7.8	350
5	Thermoelastic properties and crystal structure of MgSiO3perovskite at lower mantle pressure and temperature conditions. Geophysical Research Letters, 2000, 27, 21-24.	4.0	257
6	Equations of state of MgO, Au, Pt, NaCl-B1, and NaCl-B2: Internally consistent high-temperature pressure scales. High Pressure Research, 2007, 27, 431-446.	1.2	232
7	High pressureâ€“high temperature equations of state of neon and diamond. Physical Review B, 2008, 77, .	3.2	176
8	P-V-T equation of state of MgSiO3 perovskite. Physics of the Earth and Planetary Interiors, 1998, 105, 21-31.	1.9	171
9	Isothermal equation of state for gold with a He-pressure medium. Physical Review B, 2008, 78, .	3.2	157
10	Optical pressure sensors for high-pressureâ€“high-temperature studies in a diamond anvil cell. High Pressure Research, 2007, 27, 447-463.	1.2	154
11	High Melting Points of Tantalum in a Laser-Heated Diamond Anvil Cell. Physical Review Letters, 2010, 104, 255701.	7.8	151
12	Toward an international practical pressure scale: A proposal for an IPPS ruby gauge (IPPS-Ruby2020). High Pressure Research, 2020, 40, 299-314.	1.2	143
13	Synthesis of FeH ₅ : A layered structure with atomic hydrogen slabs. Science, 2017, 357, 382-385.	12.6	142
14	New Iron Hydrides under High Pressure. Physical Review Letters, 2014, 113, 265504.	7.8	127
15	High-pressureâ€“high-temperature equation of state of KCl and KBr. Physical Review B, 2012, 85, .	3.2	122
16	Toroidal diamond anvil cell for detailed measurements under extreme static pressures. Nature Communications, 2018, 9, 2913.	12.8	119
17	P-V-T equation of state of periclase from synchrotron radiation measurements. Journal of Geophysical Research, 2000, 105, 2869-2877.	3.3	116
18	Measurement of refractive index and equation of state in dense He,H2,H2O,and Ne under high pressure in a diamond anvil cell. Physical Review B, 2003, 67, .	3.2	102

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19	Melting of lead under high pressure studied using second-scale time-resolved x-ray diffraction. Physical Review B, 2007, 76, .	3.2	99
20	Coupling static and dynamic compressions: first measurements in dense hydrogen. High Pressure Research, 2004, 24, 25-31.	1.2	96
21	Synthesis and stability of xenon oxides Xe2O5 and Xe3O2 under pressure. Nature Chemistry, 2016, 8, 784-790.	13.6	89
22	Equation of state of rhenium and application for ultra high pressure calibration. Journal of Applied Physics, 2014, 115, .	2.5	74
23	Temperature and pressure distribution in the laser-heated diamondâ€“anvil cell. Review of Scientific Instruments, 1998, 69, 2421-2426.	1.3	68
24	Pressurizing conditions in helium-pressure-transmitting medium. High Pressure Research, 2007, 27, 419-429.	1.2	66
25	Melting curve and fluid equation of state of carbon dioxide at high pressure and high temperature. Journal of Chemical Physics, 2006, 125, 054504.	3.0	65
26	In situ characterization of the high pressure â€“ high temperature melting curve of platinum. Scientific Reports, 2019, 9, 13034.	3.3	65
27	X-Ray Magnetic Circular Dichroism Measurements in Ni up to 200ÂGPa: Resistant Ferromagnetism. Physical Review Letters, 2011, 107, 237202.	7.8	56
28	High-pressure structural transformations of Sn up to 138 GPa: Angle-dispersive synchrotron x-ray diffraction study. Physical Review B, 2013, 88, .	3.2	54
29	Mechanism of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mo>â”</mml:mo><mml:mi>Îµ</mml:mi></mml:mrow></mml:math>transformation in iron. Physical Review B, 2015, 91, .	3.2	50
30	High Pressure and High Temperature Synthesis of the Iron Pernitride FeN₂. Inorganic Chemistry, 2018, 57, 6245-6251.	4.0	46
31	Mechanical properties of tantalum under high pressure. Physical Review B, 2005, 72, .	3.2	40
32	High pressure-temperature phase diagram and equation of state of titanium. Physical Review B, 2015, 91, .	3.2	40
33	Methodology for in situ synchrotron X-ray studies in the laser-heated diamond anvil cell. High Pressure Research, 2017, 37, 170-180.	1.2	34
34	Refinement of the equation of state of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î±</mml:mi></mml:math>-uranium. Physical Review B, 2013, 88, .	3.2	31
35	Oxygen/noble gas binary phase diagrams at 296 K and high pressures. Physical Review B, 2010, 82, .	3.2	26
36	Xenon and Argon: A contrasting behavior in olivine at depth. Geochimica Et Cosmochimica Acta, 2011, 75, 6271-6284.	3.9	25

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37	Oxygen impurities reduce the metallization pressure of xenon. Physical Review B, 2012, 86, .	3.2	23
38	Study of the iron nitride FeN into the megabar regime. Journal of Alloys and Compounds, 2018, 733, 53-58.	5.5	22
39	Following the phase transitions of iron in 3D with X-ray tomography and diffraction under extreme conditions. Acta Materialia, 2020, 192, 30-39.	7.9	21
40	Reaction between nickel or iron and xenon under high pressure. High Pressure Research, 2017, 37, 137-146.	1.2	17
41	Iron under conditions close to the Î±â^'Î³â^'Ïµ triple point. Applied Physics Letters, 2018, 112, .	3.3	17
42	Equation of state of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î±</mml:mi></mml:math>-Al<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2013, 88, .	3.2	16
43	Phase transitions and equation of state of zirconium under high pressure. Physical Review B, 2020, 102, .	3.2	16
44	An x-ray topographic study of diamond anvils: Correlation between defects and helium diffusion. Journal of Applied Physics, 2006, 99, 104906.	2.5	15
45	Recent Tomographic Imaging Developments at the PSICHE Beamline. Integrating Materials and Manufacturing Innovation, 2019, 8, 551-558.	2.6	15
46	Equations of State of Simple Solids (Including Pb, NaCl and LiF) Compressed in Helium or Neon in the Mbar Range. Minerals (Basel, Switzerland), 2019, 9, 684.	2.0	14
47	The Î± â†' Ï‰ phase transformation in zirconium followed with ms-scale time-resolved X-ray absorption spectroscopy. High Pressure Research, 2016, 36, 237-249.	1.2	12
48	Low temperature equation of state of iron. Applied Physics Letters, 2017, 111, .	3.3	10
49	Stability and equation of state of face-centered cubic and hexagonal close packed phases of argon under pressure. Scientific Reports, 2021, 11, 15192.	3.3	10
50	Argon-neon binary diagram and ArNe2 Laves phase. Journal of Chemical Physics, 2019, 151, 124708.	3.0	6
51	Magnetic phase diagram of iron at high pressure and temperature. Physical Review B, 2022, 106, .	3.2	5
52	Thermal parameters of the Earth's lower mantle. Physics of the Earth and Planetary Interiors, 1998, 107, 261-267.	1.9	4
53	Sound velocity and refractive index of pure N2 fluid and of equimolar N2â€“CO2 fluid mixture up to 15 GPa. Journal of Chemical Physics, 2020, 153, 114503.	3.0	4
54	Martensitic fcc-hcp transformation pathway in solid krypton and xenon and its effect on their equations of state. Physical Review B, 2022, 105, .	3.2	4

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55	Compression of CsCl and CsBr in the megabar range. High Pressure Research, 2020, 40, 402-410.	1.2	3