Murat Durandurdu

List of Publications by Year
in descending order

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100 papers	1,205 citations	430754 18 h-index	434063 31 g-index
100 all docs	100 docs citations	100 times ranked	1334 citing authors

#	Article	IF	Citations
1	Amorphous BC5 from first principles calculations. Journal of Non-Crystalline Solids, 2022, 592, 121743.	1.5	1
2	A first principles study of amorphous and crystalline silicon tetraboride. Materials Chemistry and Physics, 2021, 258, 123928.	2.0	2
3	Amorphous zircon at high pressure. Journal of Physics and Chemistry of Solids, 2021, 153, 109991.	1.9	0
4	Amorphous boron phosphide: An ab initio investigation. Journal of Non-Crystalline Solids, 2021, 570, 121006.	1.5	2
5	Formation of a very high-density amorphous phase of carbon and its crystallization into a simple cubic structure at high pressure. Computational Materials Science, 2021, 200, 110822.	1.4	1
6	Theoretical investigation of substituent effects on the relative stabilities and electronic structure of [BnXn]2â¯ clusters. Journal of Molecular Modeling, 2021, 27, 365.	0.8	3
7	Pressure-induced amorphization, mechanical and electronic properties of zeolitic imidazolate framework (ZIF-8). Materials Chemistry and Physics, 2020, 240, 122222.	2.0	16
8	Liquid and amorphous states of boron subarsenide. Journal of the American Ceramic Society, 2020, 103, 176-182.	1.9	1
9	High pressure modifications in amorphous boron suboxide: An ab initio study. Ceramics International, 2020, 46, 5968-5975.	2.3	2
10	Tetrahedral amorphous boron nitride: A hard material. Journal of the American Ceramic Society, 2020, 103, 973-978.	1.9	3
11	Amorphous boron carbide from ab initio simulations. Computational Materials Science, 2020, 173, 109397.	1.4	6
12	Stoichiometric amorphous boron carbide (BC). Journal of Materials Science, 2020, 55, 14709-14716.	1.7	1
13	Amorphous silicon triboride: A first principles study. Journal of Non-Crystalline Solids, 2020, 536, 119995.	1.5	1
14	Amorphous silicon hexaboride at high pressure. Philosophical Magazine, 2020, 100, 1818-1833.	0.7	5
15	Ab initio simulation of amorphous BC3. Computational Materials Science, 2020, 178, 109622.	1.4	2
16	Amorphous boron arsenide. Journal of Non-Crystalline Solids, 2019, 524, 119656.	1.5	1
17	Amorphous boron suboxide. Journal of the American Ceramic Society, 2019, 102, 4546-4554.	1.9	4
18	Very low density amorphous phase of zircon. Journal of Non-Crystalline Solids, 2019, 513, 137-143.	1.5	4

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19	Phase transition of ZrN under pressure. Philosophical Magazine, 2019, 99, 942-955.	0.7	3
20	Hard boron rich boron nitride nanoglasses. Journal of the American Ceramic Society, 2018, 101, 1929-1939.	1.9	6
21	MgCu metallic glass. Philosophical Magazine, 2018, 98, 633-645.	0.7	1
22	Permanent densification of amorphous zinc oxide under pressure: A first principles study. Journal of Non-Crystalline Solids, 2018, 481, 27-32.	1.5	4
23	Amorphous silicon hexaboride: a first-principles study. Philosophical Magazine, 2018, 98, 2723-2733.	0.7	3
24	Solute aggregation in Ca72Zn28 metallic glass. Journal of Non-Crystalline Solids, 2018, 500, 410-416.	1.5	1
25	Pressureâ€induced Amorphization of MOFâ€5: A First Principles Study. ChemistrySelect, 2018, 3, 8056-8063.	0.7	18
26	An in-depth investigation of Mg-Zn-Ca metallic glasses: A first principles study. Computational Materials Science, 2018, 153, 326-337.	1.4	3
27	Hydrogenated amorphous boron nitride: A first principles study. Journal of Non-Crystalline Solids, 2018, 502, 159-163.	1.5	5
28	Amorphous zirconia at high pressure. Journal of the American Ceramic Society, 2018, 101, 5411-5418.	1.9	1
29	Amorphous magnesium silicide. Journal of Non-Crystalline Solids, 2018, 498, 118-124.	1.5	0
30	Amorphous zirconia: ab initio molecular dynamics simulations. Philosophical Magazine, 2017, 97, 1334-1345.	0.7	7
31	Two successive amorphousâ€toâ€amorphous phase transformations in TiO₂. Journal of the American Ceramic Society, 2017, 100, 3903-3911.	1.9	6
32	Densification of amorphous boron under pressure. Journal of Non-Crystalline Solids, 2017, 471, 274-279.	1.5	3
33	High-density amorphous phase of CdO. Journal of Non-Crystalline Solids, 2017, 463, 64-67.	1.5	0
34	Ferromagnetism in amorphous MgO. Philosophical Magazine, 2017, 97, 2129-2141.	0.7	1
35	Polyamorphism in Aluminum Nitride: A First Principles Molecular Dynamics Study. Journal of the American Ceramic Society, 2016, 99, 1594-1600.	1.9	8
36	Amorphous boron nitride at high pressure. Philosophical Magazine, 2016, 96, 1950-1964.	0.7	5

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37	Nanosegregated amorphous AlBN₂ alloy. Philosophical Magazine, 2016, 96, 3200-3210.	0.7	4
38	Local structure of As2O3 glass from first principles simulations. Journal of Non-Crystalline Solids, 2016, 436, 18-21.	1.5	3
39	n-type conductivity in Si-doped amorphous AlN: anab initioinvestigation. Philosophical Magazine, 2016, 96, 1110-1121.	0.7	0
40	Pressure-induced phase transformations in amorphous arsenic. Journal of Non-Crystalline Solids, 2016, 437, 6-9.	1.5	0
41	Atomic structure of amorphous CdO from first principles simulations. Journal of Non-Crystalline Solids, 2015, 412, 11-15.	1.5	7
42	Hexagonal nanosheets in amorphous BN: A first principles study. Journal of Non-Crystalline Solids, 2015, 427, 41-45.	1.5	13
43	Novel high-pressure phase of ZrO2: An ab initio prediction. Journal of Solid State Chemistry, 2015, 230, 233-236.	1.4	10
44	High-pressure phase transitions of TiN: anab initioconstant pressure study. Philosophical Magazine, 2015, 95, 2376-2384.	0.7	2
45	Liquid boron and amorphous boron: An ab initio molecular dynamics study. Journal of Non-Crystalline Solids, 2015, 417-418, 10-14.	1.5	10
46	Uncovering Nanoclusters in Amorphous AlN: An Ab Initio Study. Journal of the American Ceramic Society, 2015, 98, 1095-1098.	1.9	5
47	New high-pressure phase of MgH 2 : An ab initio constant-pressure study. Europhysics Letters, 2014, 105, 46001.	0.7	3
48	Atomic structure of amorphous Mg40Cu35Ti25 alloy: An ab initio molecular dynamics study. Solid State Communications, 2013, 154, 30-33.	0.9	3
49	Nanosize icosahedral quasicrystal in Mg90Ca10 glass: An ab initio molecular dynamics study. Journal of Chemical Physics, 2012, 137, 034503.	1.2	4
50	Nanoscale icosahedral packing in amorphous Mg 50 Ni 50 : An ab initio study. Europhysics Letters, 2012, 100, 26002.	0.7	2
51	Ab initio modeling of metallic Pd80Si20 glass. Computational Materials Science, 2012, 65, 44-47.	1.4	29
52	Formation of Cotunnite Phase in ZrO₂ under Uniaxial Stress: A First Principles Study. Journal of the American Ceramic Society, 2011, 94, 932-937.	1.9	6
53	Pressure-induced phase transformation of BaS: An ab initio constant pressure study. Chemical Physics, 2010, 367, 80-82.	0.9	12
54	Formation of a Cmcm phase in SnS at high pressure; an ab initio constant pressure study. Solid State Communications, 2010, 150, 870-874.	0.9	24

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55	Orthorhombic intermediate phases for the wurtzite-to-rocksalt phase transformation of CdSe: An ab initio constant pressure study. Chemical Physics, 2010, 369, 55-58.	0.9	9
56	Formation of Anatase Phase in HfO₂ in Tensile Stress: An Ab Initio Study. Journal of the American Ceramic Society, 2010, 93, 1467-1469.	1.9	0
57	Formation of a two-dimensional layered structure in silica under shear stresses: Anab initiostudy. Physical Review B, 2010, 81, .	1.1	3
58	Vibrational properties of amorphous germanium under pressure and its thermal expansion and GrÃ¼neisen parameters. Journal of Non-Crystalline Solids, 2010, 356, 977-981.	1.5	5
59	Ab initio molecular dynamics study of pressure-induced phase transformation in KCl. Computational Materials Science, 2010, 48, 672-676.	1.4	4
60	Formation of an anataselike phase in silica under anisotropic stress: Anab initioconstant-pressure study. Physical Review B, 2009, 80, .	1.1	7
61	The structural phase transition of ZnSe under hydrostatic and nonhydrostatic compressions: anab initiomolecular dynamics study. Journal of Physics Condensed Matter, 2009, 21, 125403.	0.7	11
62	New transformation mechanism for a zinc-blende to rocksalt phase transformation in MgS. Journal of Physics Condensed Matter, 2009, 21, 452204.	0.7	8
63	Pressure-induced phase transformation of 4H-SiC: An ab initio constant-pressure study. Europhysics Letters, 2009, 87, 36001.	0.7	11
64	Expanded phase of ZrO ₂ : An ab initio constant-pressure study. Europhysics Letters, 2009, 88, 66001.	0.7	7
65	Pressure-induced phase transition of BeO. Solid State Communications, 2009, 149, 345-348.	0.9	17
66	Pressure-induced phase transition in wurtzite ZnS: An ab initio constant pressure study. Journal of Physics and Chemistry of Solids, 2009, 70, 645-649.	1.9	31
67	Fcc-to-bct phase transformation of aluminum under triaxial stresses: an ab initio constant pressure study. European Physical Journal B, 2009, 72, 241-245.	0.6	3
68	High-pressure phases ofZrO2: Anab initioconstant-pressure study. Physical Review B, 2009, 79, .	1.1	39
69	First principles study of structural phase stability of wide-gap semiconductors MgTe, MgS and MgSe. Computational Materials Science, 2009, 47, 593-598.	1.4	71
70	Pressure-induced phase transition in AlN: An ab initio molecular dynamics study. Journal of Alloys and Compounds, 2009, 480, 917-921.	2.8	22
71	High-density amorphous phase of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>GeS</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>under pressure. Physical Review B, 2009, 79, .	1.1	18
72	Pressure-induced phase transition of zinc-blende AlN: An ab initio molecular dynamics study. Journal of Physics and Chemistry of Solids, 2008, 69, 2894-2897.	1.9	22

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73	Diamond to Î²-Sn phase transition of silicon under hydrostatic and nonhydrostatic compressions. Journal of Physics Condensed Matter, 2008, 20, 325232.	0.7	11
74	An ab initio constant-pressure study of pressure-induced phase transition of MgSe. Europhysics Letters, 2008, 84, 56001.	0.7	4
75	Phase transformation of 6H-SiC at high pressure: An ab initio constant-pressure study. Europhysics Letters, 2008, 84, 26003.	0.7	8
76	Pressure-induced phase transformation in CdO: An ab initio constant-pressure study. Europhysics Letters, 2008, 84, 66003.	0.7	9
77	Ab initiosimulations of the structural phase transformation of2Hâ€SiCat high pressure. Physical Review B, 2007, 75, .	1.1	36
78	Structural phase transition of gold under uniaxial, tensile, and triaxial stresses: Anab initiostudy. Physical Review B, 2007, 76, .	1.1	15
79	New B₂O₃ Crystals Predicted from Concurrent Molecular Dynamics Simulations and First-Principles Calculations. Journal of Physical Chemistry C, 2007, 111, 13712-13720.	1.5	21
80	Ab initiomolecular dynamics study of pressure-induced phase transition in ZnS. Journal of Physics Condensed Matter, 2006, 18, 9483-9491.	0.7	14
81	Ab initio modeling of small diameter silicon nanowires. Physica Status Solidi (B): Basic Research, 2006, 243, R7-R9.	0.7	14
82	Electronic and mechanical properties of wurtzite type SiC nanowires. Physica Status Solidi (B): Basic Research, 2006, 243, R37-R39.	0.7	17
83	Transformation pathways of silica under high pressure. Nature Materials, 2006, 5, 977-981.	13.3	91
84	Transition pathway in GaAs under uniaxial stress: anab initiostudy. Journal of Physics Condensed Matter, 2006, 18, 4887-4894.	0.7	5
85	Ab initiosimulation of polyamorphic phase transition in hydrogenated silicon. Physical Review B, 2006, 73, .	1.1	5
86	Phase transition of GeSe2 at high pressure. Physica Status Solidi (B): Basic Research, 2005, 242, 3085-3090.	0.7	6
87	Cmcmphase of GeS at high pressure. Physical Review B, 2005, 72, .	1.1	17
88	Structural phase transition of germanium under uniaxial stress:â€ƒAnab initiostudy. Physical Review B, 2005, 71, .	1.1	16
89	Ab initiosimulation of the rhombohedralâ€“toâ€“simple-cubic transition in arsenic. Physical Review B, 2005, 72, .	1.1	7
90	Pressure-induced amorphous-to-amorphous phase transition inGaAs. Physical Review B, 2004, 70, .	1.1	5

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91	Pressure-induced phase transition of SiC. Journal of Physics Condensed Matter, 2004, 16, 4411-4417.	0.7	35
92	Mechanically Controlled, Seeded Formation of a Nanoscale Metastable Phase in Ionic Compounds. Nano Letters, 2004, 4, 1769-1773.	4.5	1
93	High-pressure phases of amorphous and crystalline silicon. Physical Review B, 2003, 67, .	1.1	40
94	Ab initiosimulation of pressure-induced low-energy excitations in amorphous silicon. Physical Review B, 2002, 66, .	1.1	12
95	First-order pressure-induced polyamorphism in germanium. Physical Review B, 2002, 66, .	1.1	41
96	Pressure-induced structural phase transition of paracrystalline silicon. Physical Review B, 2002, 66, .	1.1	8
97	Ab initiosimulation of high-pressure phases of GaAs. Physical Review B, 2002, 66, .	1.1	28
98	Simulation of pressure-induced polyamorphism in a chalcogenide glassGeSe2. Physical Review B, 2002, 65, .	1.1	78
99	Ab initiosimulation of first-order amorphous-to-amorphous phase transition of silicon. Physical Review B, 2001, 64, .	1.1	80
100	Approximateab initiocalculations of electronic structure of amorphous silicon. Physical Review B, 2000, 62, 15307-15310.	1.1	26