Mehmet Topsakal

List of Publications by Year
in descending order

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38 papers	9,096 citations	218677 26 h-index	361022 35 g-index
38 all docs	38 docs citations	38 times ranked	8808 citing authors

#	Article	IF	Citations
1	Two- and One-Dimensional Honeycomb Structures of Silicon and Germanium. Physical Review Letters, 2009, 102, 236804.	7.8	2,837
2	Monolayer honeycomb structures of group-IV elements and III-V binary compounds: First-principles calculations. Physical Review B, 2009, 80, .	3.2	1,769
3	First-principles study of two- and one-dimensional honeycomb structures of boron nitride. Physical Review B, 2009, 79, .	3.2	580
4	Electronic and magnetic properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>3</mml:mn><mml:mi>d</mml:mi></mml:mrow></mml:math>transition-metal atom adsorbed graphene and graphene nanoribbons. Physical Review B, 2008, 77, .	3.2	452
5	First-principles study of defects and adatoms in silicon carbide honeycomb structures. Physical Review B, 2010, 81, .	3.2	344
6	The response of mechanical and electronic properties of graphane to the elastic strain. Applied Physics Letters, 2010, 96, .	3.3	344
7	First-principles study of zinc oxide honeycomb structures. Physical Review B, 2009, 80, .	3.2	298
8	A Comparative Study of Lattice Dynamics of Three- and Two-Dimensional MoS₂. Journal of Physical Chemistry C, 2011, 115, 16354-16361.	3.1	298
9	Structures of fluorinated graphene and their signatures. Physical Review B, 2011, 83, .	3.2	254
10	Elastic and plastic deformation of graphene, silicene, and boron nitride honeycomb nanoribbons under uniaxial tension: A first-principles density-functional theory study. Physical Review B, 2010, 81, .	3.2	219
11	Kinetic pathways of ionic transport in fast-charging lithium titanate. Science, 2020, 367, 1030-1034.	12.6	197
12	Graphene coatings: An efficient protection from oxidation. Physical Review B, 2012, 85, .	3.2	178
13	Current-voltage<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:mi>I</mml:mi><mml:mtext>-2</mml:mtext><mml:mn of armchair graphene nanoribbons under uniaxial strain. Physical Review B, 2010, 81, .	3.2	148
14	Superlattice structures of graphene-based armchair nanoribbons. Physical Review B, 2008, 78, .	3.2	148
15	Armchair nanoribbons of silicon and germanium honeycomb structures. Physical Review B, 2010, 81, .	3.2	137
16	First-principles approach to monitoring the band gap and magnetic state of a graphene nanoribbon via its vacancies. Physical Review B, 2008, 78, .	3.2	120
17	Frictional Figures of Merit for Single Layered Nanostructures. Physical Review Letters, 2012, 108, 126103.	7.8	110
18	Long-range interactions in carbon atomic chains. Physical Review B, 2010, 82, .	3.2	86

#	Article	IF	Citations
19	Spin confinement in the superlattices of graphene ribbons. Applied Physics Letters, 2008, 92, .	3.3	79
20	Atomic and electronic structure of exfoliated black phosphorus. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	73
21	Classification of local chemical environments from x-ray absorption spectra using supervised machine learning. Physical Review Materials, 2019, 3, .	2.4	66
22	Bandgap Restructuring of the Layered Semiconductor Gallium Telluride in Air. Advanced Materials, 2016, 28, 6465-6470.	21.0	58
23	Multi-Stage Structural Transformations in Zero-Strain Lithium Titanate Unveiled by in Situ X-ray Absorption Fingerprints. Journal of the American Chemical Society, 2017, 139, 16591-16603.	13.7	57
24	Effects of Charging and Electric Field on Graphene Oxide. Journal of Physical Chemistry C, 2013, 117, 5943-5952.	3.1	47
25	Domain formation on oxidized graphene. Physical Review B, 2012, 86, .	3.2	40
26	Effects of static charging and exfoliation of layered crystals. Physical Review B, 2012, 85, .	3.2	35
27	Static charging of graphene and graphite slabs. Applied Physics Letters, 2011, 98, .	3.3	23
28	Operandostructural and chemical evolutions of TiS₂in Na-ion batteries. Journal of Materials Chemistry A, 2020, 8, 12339-12350.	10.3	23
29	A New Line Defect in NdTiO₃ Perovskite. Nano Letters, 2016, 16, 6816-6822.	9.1	18
30	Identification of dopant site and its effect on electrochemical activity in Mn-doped lithium titanate. Physical Review Materials, 2018, 2, .	2.4	17
31	Nonresonant valence-to-core x-ray emission spectroscopy of niobium. Physical Review B, 2018, 97, .	3.2	11
32	Electronic structure of BaSnO3 investigated by high-energy-resolution electron energy-loss spectroscopy and ab initio calculations. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	2.1	11
33	Metallic line defect in wide-bandgap transparent perovskite BaSnO ₃. Science Advances, 2021, 7, .	10.3	11
34	Probing ferroelectricity by x-ray absorption spectroscopy in molecular crystals. Physical Review Materials, 2020, 4, .	2.4	4
35	Decomposition of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">L</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi>Cu</mml:mi><mml:msub><mml:mi	2.4	2
36	Machine-Learning Assisted Structure Determination of Metallic Nanoparticles: A Benchmark. , 2020, , 127-140.		1

#	Article	IF	Citations
37	Electronic Structure of New Line Defect in Strained NdTiCb on SrTiO3. Microscopy and Microanalysis, 2015, 21, 2073-2074.	0.4	0
38	Probing the Electronic Structure of BaSnO3 by EELS Analysis and ab initio Calculations. Microscopy and Microanalysis, 2017, 23, 1602-1603.	0.4	0