Mehmet Yagmurcukardes

List of Publications by Year
in descending order

46 papers	1,686 citations	257450 24 h-index	289244 40 g-index

46 all docs	46 docs citations	46 times ranked	1782 citing authors

#	Article	IF	Citations
1	Quantum properties and applications of 2D Janus crystals and their superlattices. Applied Physics Reviews, 2020, 7, .	11.3	156
2	Mechanical properties of monolayer GaS and GaSe crystals. Physical Review B, 2016, 94, .	3.2	122
3	Electronic, vibrational, elastic, and piezoelectric properties of monolayer Janus MoSTe phases: A first-principles study. Physical Review B, 2019, 100, .	3.2	120
4	Pentagonal monolayer crystals of carbon, boron nitride, and silver azide. Journal of Applied Physics, 2015, 118, .	2.5	91
5	Single-Layer Janus-Type Platinum Dichalcogenides and Their Heterostructures. Journal of Physical Chemistry C, 2019, 123, 4549-4557.	3.1	81
6	Nanoribbons: From fundamentals to state-of-the-art applications. Applied Physics Reviews, 2016, 3, .	11.3	77
7	Janus two-dimensional transition metal dichalcogenide oxides: First-principles investigation of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">W</mml:mi><mml:mi>X</mml:mi><mml:mi mathvariant="normal">O</mml:mi></mml:mrow></mml:math> monolayers with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>X</mml:mi><mml:mo>=</mml:mo><mml:mi mathvariant="normal">S</mml:mi></mml:math> , Se, and Te. Physical Review B, 2021, 103, .	3.2	73
8	Stable single layer of Janus MoSO: Strong out-of-plane piezoelectricity. Physical Review B, 2020, 101, .	3.2	67
9	Electro-optical properties of monolayer and bilayer boron-doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mrow><mml:msub><mml:mtext>C</mml:mtext><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:ma Tunable electronic structure via strain engineering and electric field. Carbon, 2020, 168, 220-229.	10.3	66
10	Van der Waals heterostructures of MoS₂and Janus MoSSe monolayers on graphitic boron-carbon-nitride (BC₃,C₃N,C₃N₄andC₄N₃ nanosheets: a first-principles study. Journal Physics D: Applied Physics, 2020, 53, 355106.	2.8	64
11	A Dirac-semimetal two-dimensional BeN4: Thickness-dependent electronic and optical properties. Applied Physics Letters, 2021, 118, .	3.3	64
12	Nitrogenated, phosphorated and arsenicated monolayer holey graphenes. Physical Chemistry Chemical Physics, 2016, 18, 3144-3150.	2.8	57
13	Electronic and vibrational properties of PbI2 : From bulk to monolayer. Physical Review B, 2018, 98, .	3.2	49
14	Tuning electronic and magnetic properties of monolayer Î±-RuCl₃ by in-plane strain. Journal of Materials Chemistry C, 2018, 6, 2019-2025.	5.5	47
15	Strain mapping in single-layer two-dimensional crystals via Raman activity. Physical Review B, 2018, 97, .	3.2	43
16	Blue Energy Conversion from Holey-Graphene-like Membranes with a High Density of Subnanometer Pores. Nano Letters, 2020, 20, 8634-8639.	9.1	42
17	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mg</mml:mi><mml:msub><mml:mrow><mml:mo>(</m van der Waals heterobilayer: Electric field tunable band-gap crossover. Physical Review B, 2016, 94, .	3.2	40
18	Two-Dimensional Covalent Crystals by Chemical Conversion of Thin van der Waals Materials. Nano Letters, 2019, 19, 6475-6481.	9.1	32

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19	Single-layer Janus black arsenic-phosphorus (b-AsP): Optical dichroism, anisotropic vibrational, thermal, and elastic properties. Physical Review B, 2020, 101, .	3.2	31
20	Vanadium dopant- and strain-dependent magnetic properties of single-layer VI3. Applied Surface Science, 2020, 508, 144937.	6.1	30
21	Exponentially selective molecular sieving through angstrom pores. Nature Communications, 2021, 12, 7170.	12.8	29
22	Hydrogen-induced structural transition in single layer ReS ₂. 2D Materials, 2017, 4, 035013.	4.4	26
23	Monolayer fluoro-InSe: Formation of a thin monolayer via fluorination of InSe. Physical Review B, 2019, 100, .	3.2	26
24	Raman fingerprint of stacking order in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>HfS</mml:mi><mml:mn>2</mml:mn></mml heterobilayer. Physical Review B, 2019, 99, .	3.2	26
25	Controlled growth mechanism of poly (3-hexylthiophene) nanowires. Nanotechnology, 2016, 27, 455604.	2.6	25
26	Enhanced Stability of Single-Layer w-Gallenene through Hydrogenation. Journal of Physical Chemistry C, 2018, 122, 28302-28309.	3.1	25
27	Surface functionalization of the honeycomb structure of zinc antimonide (ZnSb) monolayer: A first-Principles study. Surface Science, 2021, 707, 121796.	1.9	17
28	Electro-optical and mechanical properties of Zinc antimonide (ZnSb) monolayer and bilayer: A first-principles study. Applied Surface Science, 2021, 540, 148289.	6.1	16
29	First-principles investigation of electronic, mechanical and thermoelectric properties of graphene-like XBi (X = Si, Ge, Sn) monolayers. Physical Chemistry Chemical Physics, 2021, 23, 12471-12478.	2.8	16
30	Single-layer structures of a₁₀₀- and b₀₁₀-Gallenene: a tight-binding approach. Physical Chemistry Chemical Physics, 2019, 21, 15798-15804.	2.8	15
31	Vertical van der Waals Heterostructure of Single Layer InSe and SiGe. Journal of Physical Chemistry C, 2019, 123, 31232-31237.	3.1	14
32	Stable single-layers of calcium halides (CaX₂, X = F, Cl, Br, I). Journal of Chemical Physics, 2020, 152, 164116.	3.0	13
33	Hematite at its thinnest limit. 2D Materials, 2020, 7, 025029.	4.4	13
34	Prediction of monoclinic single-layer Janus <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ga</mml:mi><mml:mn>2</mml:mn></mml: (<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>X</mml:mi></mml:math> = S) Tj ETQq0 0 0 rgBT /Overloc	3.2	12
35	Electronic and magnetic properties of single-layer FeCl2 with defects. Physical Review B, 2021, 103, .	3.2	9
36	Determining the Molecular Orientation on the Metal Nanoparticle Surface through Surface-Enhanced Raman Spectroscopy and Density Functional Theory Simulations. Journal of Physical Chemistry C, 2021, 125, 16289-16295.	3.1	8

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37	Stable Janus TaSe2 single-layers via surface functionalization. Applied Surface Science, 2021, 538, 148064.	6.1	7
38	Aluminum and lithium sulfur batteries: a review of recent progress and future directions. Journal of Physics Condensed Matter, 2021, 33, 253002.	1.8	7
39	Optoelectronic properties of confined water in angstrom-scale slits. Physical Review B, 2020, 102, .	3.2	6
40	Electrospun polyacrylonitrile (PAN) nanofiber: preparation, experimental characterization, organic vapor sensing ability and theoretical simulations of binding energies. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	2.3	6
41	Interface-dependent phononic and optical properties of GeO/MoSO heterostructures. Nanoscale, 2022, 14, 865-874.	5.6	5
42	Stable anisotropic single-layer of ReTe2: a first principles prediction. Turkish Journal of Physics, 2020, 44, 450-457.	1.1	4
43	Functionalization of single-layer TaS₂ and formation of ultrathin Janus structures. Journal of Materials Research, 2020, 35, 1397-1406.	2.6	4
44	Vibrational and optical identification of GeO₂ and GeO single layers: a first-principles study. Physical Chemistry Chemical Physics, 2021, 23, 21307-21315.	2.8	3
45	Interaction of Ge with single layer GaAs: From Ge-island nucleation to formation of novel stable monolayers. Applied Surface Science, 2020, 505, 144218.	6.1	1
46	First-Principles Investigation of Structural, Raman and Electronic Characteristics of Single Layer Ge3N4. Applied Surface Science, 2021, 572, 151361.	6.1	1