

Hasan SahIn

List of Publications by Year in Descending Order

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

141
papers

11,197
citations

45
h-index

105
g-index

144
ext. papers

12,610
ext. citations

4.4
avg, IF

6.67
L-index

#	Paper	IF	Citations
141	Interface-dependent phononic and optical properties of GeO/MoSO heterostructures.. <i>Nanoscale</i> , 2022 ,	7.7	1
140	Experimental modeling of antimony sulfides-rich geothermal deposits and their solubility in the presence of polymeric antiscalants. <i>Geothermics</i> , 2022 , 104, 102452	4.3	1
139	Toward single-layer Janus crystals: Off-balance materials from synthesis to nanotechnology applications. <i>Journal of Applied Physics</i> , 2021 , 129, 160902	2.5	1
138	Stable Janus TaSe2 single-layers via surface functionalization. <i>Applied Surface Science</i> , 2021 , 538, 148064.	4.7	4
137	Electronic and magnetic properties of single-layer FeCl2 with defects. <i>Physical Review B</i> , 2021 , 103,	3.3	3
136	Ultra-thin structures of manganese fluorides: conversion from manganese dichalcogenides by fluorination. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 10218-10224	3.6	0
135	Origin of anomalous band-gap bowing in two-dimensional tin-lead mixed perovskite alloys. <i>Physical Review B</i> , 2021 , 104,	3.3	2
134	Cesium manganese chloride: Stable lead-free perovskite from bulk to single layer. <i>Journal of Magnetism and Magnetic Materials</i> , 2021 , 531, 167845	2.8	1
133	Electronic properties of intrinsic vacancies in single-layer CaF2 and its heterostructure with monolayer MoS2. <i>Journal of Applied Physics</i> , 2021 , 130, 055301	2.5	1
132	First-principles investigation of structural, Raman and electronic characteristics of single layer Ge3N4. <i>Applied Surface Science</i> , 2021 , 572, 151361	6.7	1
131	Vibrational and optical identification of GeO and GeO single layers: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 21307-21315	3.6	1
130	Raman and optical characteristics of van der Waals heterostructures of single layers of GaP and GaSe: a first-principles study. <i>Inorganic Chemistry Frontiers</i> , 2021 , 8, 2771-2781	6.8	1
129	Prevalence of oxygen defects in an in-plane anisotropic transition metal dichalcogenide. <i>Physical Review B</i> , 2020 , 102,	3.3	5
128	Stable single-layers of calcium halides (CaX, X = F, Cl, Br, I). <i>Journal of Chemical Physics</i> , 2020 , 152, 164116.	5.9	9
127	Fabrication of a Postfunctionalizable, Biorepellent, Electroactive Polyurethane Interface on a Gold Surface by Surface-Assisted Polymerization. <i>Langmuir</i> , 2020 , 36, 6828-6836	4	2
126	Quantum properties and applications of 2D Janus crystals and their superlattices. <i>Applied Physics Reviews</i> , 2020 , 7, 011311	17.3	64
125	Octahedrally coordinated single layered CaF: robust insulating behaviour. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 2949-2954	3.6	8

124	Orthorhombic CsPbI ₃ perovskites: Thickness-dependent structural, optical and vibrational properties. <i>Computational Condensed Matter</i> , 2020 , 23, e00453	1.7	5
123	Parametrizing nonbonded interactions between silica and water from first principles. <i>Applied Surface Science</i> , 2020 , 504, 144359	6.7	4
122	Interaction of Ge with single layer GaAs: From Ge-island nucleation to formation of novel stable monolayers. <i>Applied Surface Science</i> , 2020 , 505, 144218	6.7	1
121	Vanadium dopant- and strain-dependent magnetic properties of single-layer VI ₃ . <i>Applied Surface Science</i> , 2020 , 508, 144937	6.7	20
120	The effect of DOPA hydroxyl groups on wet adhesion to polystyrene surface: An experimental and theoretical study. <i>Materials Chemistry and Physics</i> , 2020 , 243, 122606	4.4	3
119	Kagome-like silicene: A novel exotic form of two-dimensional epitaxial silicon. <i>Applied Surface Science</i> , 2020 , 530, 147195	6.7	12
118	Novel ultra-thin two-dimensional structures of strontium chloride. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 12527-12532	7.1	1
117	Structural, electronic and vibrational properties of ultra-thin octahedrally coordinated structure of EuO ₂ . <i>Journal of Magnetism and Magnetic Materials</i> , 2020 , 493, 165668	2.8	1
116	Functionalization of single-layer TaS ₂ and formation of ultrathin Janus structures. <i>Journal of Materials Research</i> , 2020 , 35, 1397-1406	2.5	1
115	Stacking-dependent excitonic properties of bilayer blue phosphorene. <i>Physical Review B</i> , 2019 , 100,	3.3	11
114	Gd ³⁺ -Doped CsPbI ₃ Nanocrystals with Better Phase Stability and Optical Properties. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 24865-24872	3.8	32
113	Single-Layer Janus-Type Platinum Dichalcogenides and Their Heterostructures. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 4549-4557	3.8	54
112	Monitoring the crystal orientation of black-arsenic via vibrational spectra. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 1228-1236	7.1	9
111	Experimental and first-principles investigation of Cr-driven color change in cesium lead halide perovskites. <i>Journal of Applied Physics</i> , 2019 , 125, 225705	2.5	3
110	Green fabrication of lanthanide-doped hydroxide-based phosphors: Y(OH):Eu nanoparticles for white light generation. <i>Beilstein Journal of Nanotechnology</i> , 2019 , 10, 1200-1210	3	1
109	Raman fingerprint of stacking order in HfS ₂ /Ta(OH) ₂ heterobilayer. <i>Physical Review B</i> , 2019 , 99,	3.3	22
108	Two-Dimensional Covalent Crystals by Chemical Conversion of Thin van der Waals Materials. <i>Nano Letters</i> , 2019 , 19, 6475-6481	11.5	26
107	Color-Tunable All-Inorganic CsPbBr ₃ Perovskites Nanoplatelet Films for Photovoltaic Devices. <i>ACS Applied Nano Materials</i> , 2019 , 2, 5149-5155	5.6	3

106	Defect tolerant and dimension dependent ferromagnetism in MnSe. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 16718-16725	3.6	13
105	Vertical van der Waals Heterostructure of Single Layer InSe and SiGe. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 31232-31237	3.8	11
104	Increasing solubility of metal silicates by mixed polymeric antiscalants. <i>Geothermics</i> , 2019 , 77, 106-114	4.3	12
103	Janus single layers of In ₂ SSe: A first-principles study. <i>Physical Review B</i> , 2018 , 97,	3.3	65
102	Tuning electronic and magnetic properties of monolayer ERuCl ₃ by in-plane strain. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 2019-2025	7.1	31
101	Monitoring the Doping and Diffusion Characteristics of Mn Dopants in Cesium Lead Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 11543-11549	3.8	12
100	Theoretical and experimental investigation of conjugation of 1,6-hexanedithiol on MoS ₂ . <i>Materials Research Express</i> , 2018 , 5, 036415	1.7	6
99	Strain mapping in single-layer two-dimensional crystals via Raman activity. <i>Physical Review B</i> , 2018 , 97,	3.3	32
98	Experimental and computational investigation of graphene/SAMs/n-Si Schottky diodes. <i>Applied Surface Science</i> , 2018 , 428, 1010-1017	6.7	6
97	Electronic and vibrational properties of PbI ₂ : From bulk to monolayer. <i>Physical Review B</i> , 2018 , 98,	3.3	33
96	Ab initio and semiempirical modeling of excitons and trions in monolayer TiS ₃ . <i>Physical Review B</i> , 2018 , 98,	3.3	7
95	Structural, electronic and phononic properties of PtSe ₂ : from monolayer to bulk. <i>Semiconductor Science and Technology</i> , 2018 , 33, 085002	1.8	55
94	Bilayers of Janus WSSe: monitoring the stacking type via the vibrational spectrum. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 17380-17386	3.6	34
93	CsPbBr ₃ perovskites: Theoretical and experimental investigation on water-assisted transition from nanowire formation to degradation. <i>Physical Review Materials</i> , 2018 , 2,	3.2	45
92	Hydrogenated derivatives of hexacoordinated metallic CuSi monolayer.. <i>RSC Advances</i> , 2018 , 8, 39976-39982	3.98	2
91	Enhanced Stability of Single-Layer w-Gallene through Hydrogenation. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 28302-28309	3.8	14
90	Monitoring the effect of asymmetrical vertical strain on Janus single layers of MoSSe via vibrational spectrum. <i>Journal of Chemical Physics</i> , 2018 , 149, 084707	3.9	7
89	Monolayer AsTe : Stable Robust Metal in 2D, 1D and 0D. <i>ChemPhysChem</i> , 2018 , 19, 2176-2182	3.2	2

88	Atomic-scale understanding of dichlorobenzene-assisted poly 3-hexylthiophene-2,5-diyl nanowire formation mechanism. <i>Journal of Molecular Structure</i> , 2017 , 1134, 681-686	3.4	2
87	Angle resolved vibrational properties of anisotropic transition metal trichalcogenide nanosheets. <i>Nanoscale</i> , 2017 , 9, 4175-4182	7.7	49
86	h-AlN-Mg(OH) ₂ van der Waals bilayer heterostructure: Tuning the excitonic characteristics. <i>Physical Review B</i> , 2017 , 95,	3.3	19
85	Fundamental mechanisms responsible for the temperature coefficient of resonant frequency in microwave dielectric ceramics. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 1508-1516	3.8	8
84	Hydrogen-induced structural transition in single layer ReS ₂ . <i>2D Materials</i> , 2017 , 4, 035013	5.9	20
83	Ultra-thin ZnSe: Anisotropic and flexible crystal structure. <i>Applied Surface Science</i> , 2017 , 409, 426-430	6.7	6
82	Thinning CsPb ₂ Br ₅ perovskite down to monolayers: Cs-dependent stability. <i>Physical Review B</i> , 2017 , 96,	3.3	22
81	Hydrogenation-driven phase transition in single-layer TiSe. <i>Nanotechnology</i> , 2017 , 28, 495709	3.4	5
80	Adsorption and diffusion characteristics of lithium on hydrogenated β - and β -silicene. <i>Beilstein Journal of Nanotechnology</i> , 2017 , 8, 1742-1748	3	0
79	Few-layer MoS as nitrogen protective barrier. <i>Nanotechnology</i> , 2017 , 28, 415706	3.4	5
78	Stability, electronic and phononic properties of β - and 1T structures of SiTe ($x = 1, 2$) and their vertical heterostructures. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 395504	1.8	5
77	Hydrogen-induced $sp^2 \rightarrow sp^3$ rehybridization in epitaxial silicene. <i>Physical Review B</i> , 2017 , 96,	3.3	5
76	Stable monolayer β -phase of CdTe: strain-dependent properties. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 12249-12255	7.1	4
75	Stable ultra-thin CdTe crystal: a robust direct gap semiconductor. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 485302	1.8	3
74	2D vibrational properties of epitaxial silicene on Ag(111). <i>2D Materials</i> , 2017 , 4, 015008	5.9	27
73	Introduction to the Physics of Silicene and other 2D Materials. <i>Lecture Notes in Physics</i> , 2017 ,	0.8	22
72	A Brief History of Silicene. <i>Lecture Notes in Physics</i> , 2017 , 1-11	0.8	
71	Freestanding Silicene. <i>Lecture Notes in Physics</i> , 2017 , 13-39	0.8	1

70	Silicene on Ag Substrate. <i>Lecture Notes in Physics</i> , 2017 , 41-52	0.8	1
69	Multilayer Silicene. <i>Lecture Notes in Physics</i> , 2017 , 53-61	0.8	
68	Germanene, Stanene and Other 2D Materials. <i>Lecture Notes in Physics</i> , 2017 , 63-85	0.8	2
67	Strain Engineering of 2D Materials. <i>Lecture Notes in Physics</i> , 2017 , 87-96	0.8	3
66	Silicene as oxidation-resistant ultra-thin coating material. <i>Beilstein Journal of Nanotechnology</i> , 2017 , 8, 1808-1814	3	3
65	Strong dichroic emission in the pseudo one dimensional material ZrS. <i>Nanoscale</i> , 2016 , 8, 16259-16265	7.7	48
64	Single layer PbI ₂ : hydrogenation-driven reconstructions. <i>RSC Advances</i> , 2016 , 6, 89708-89714	3.7	10
63	Optical properties of GaS-Ca(OH) ₂ bilayer heterostructure. <i>Physical Review B</i> , 2016 , 93,	3.3	17
62	New family of graphene-based organic semiconductors: An investigation of photon-induced electronic structure manipulation in half-fluorinated graphene. <i>Physical Review B</i> , 2016 , 93,	3.3	4
61	Bilayer SnS ₂ : Tunable stacking sequence by charging and loading pressure. <i>Physical Review B</i> , 2016 , 93,	3.3	33
60	Structural changes in a Schiff base molecular assembly initiated by scanning tunneling microscopy tip. <i>Nanotechnology</i> , 2016 , 27, 335601	3.4	4
59	Unusual lattice vibration characteristics in whiskers of the pseudo-one-dimensional titanium trisulfide TiS. <i>Nature Communications</i> , 2016 , 7, 12952	17.4	54
58	Mg(OH) ₂ /WS ₂ van der Waals heterobilayer: Electric field tunable band-gap crossover. <i>Physical Review B</i> , 2016 , 94,	3.3	35
57	Computing optical properties of ultra-thin crystals. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2016 , 6, 351-368	7.9	13
56	Exciton pumping across type-I gallium chalcogenide heterojunctions. <i>Nanotechnology</i> , 2016 , 27, 065203	3.4	19
55	Mechanical properties of monolayer GaS and GaSe crystals. <i>Physical Review B</i> , 2016 , 94,	3.3	82
54	Unusual dimensionality effects and surface charge density in 2D Mg(OH) ₂ . <i>Scientific Reports</i> , 2016 , 6, 20525	4.9	38
53	Anisotropic electronic, mechanical, and optical properties of monolayer WTe ₂ . <i>Journal of Applied Physics</i> , 2016 , 119, 074307	2.5	56

52	Nanoribbons: From fundamentals to state-of-the-art applications. <i>Applied Physics Reviews</i> , 2016 , 3, 041302, 3	1.7	55
51	Giant magnetic anisotropy in doped single layer molybdenum disulfide and fluorographene. <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 195301	1.8	4
50	Quantum-Transport Characteristics of a p-n Junction on Single-Layer TiS. <i>ChemPhysChem</i> , 2016 , 17, 3985-3991	3.2	6
49	Controlled growth mechanism of poly (3-hexylthiophene) nanowires. <i>Nanotechnology</i> , 2016 , 27, 455604	3.4	23
48	Realization of a p-n junction in a single layer boron-phosphide. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 13013-20	3.6	93
47	Environmental Changes in MoTe ₂ Excitonic Dynamics by Defects-Activated Molecular Interaction. <i>ACS Nano</i> , 2015 , 9, 5326-32	16.7	144
46	Vacancy Formation and Oxidation Characteristics of Single Layer TiS ₃ . <i>Journal of Physical Chemistry C</i> , 2015 , 119, 10709-10715	3.8	44
45	Tuning Carrier Confinement in the MoS ₂ /WS ₂ Lateral Heterostructure. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 9580-9586	3.8	65
44	Structural Transitions in Monolayer MoS ₂ by Lithium Adsorption. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 10602-10609	3.8	92
43	Mechanical properties of monolayer sulphides: a comparative study between MoS ₂ , HfS ₂ and TiS ₃ . <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 27742-9	3.6	78
42	Engineering excitonic dynamics and environmental stability of post-transition metal chalcogenides by pyridine functionalization technique. <i>Nanoscale</i> , 2015 , 7, 17109-15	7.7	12
41	Pentagonal monolayer crystals of carbon, boron nitride, and silver azide. <i>Journal of Applied Physics</i> , 2015 , 118, 104303	2.5	69
40	Portlandite crystal: Bulk, bilayer, and monolayer structures. <i>Physical Review B</i> , 2015 , 91,	3.3	26
39	TiS ₃ nanoribbons: Width-independent band gap and strain-tunable electronic properties. <i>Physical Review B</i> , 2015 , 92,	3.3	51
38	Structural and phononic characteristics of nitrogenated holey graphene. <i>Physical Review B</i> , 2015 , 92,	3.3	63
37	Tuning the magnetic anisotropy in single-layer crystal structures. <i>Physical Review B</i> , 2015 , 92,	3.3	33
36	Hexagonal AlN: Dimensional-crossover-driven band-gap transition. <i>Physical Review B</i> , 2015 , 91,	3.3	86
35	Stable half-metallic monolayers of FeCl ₂ . <i>Applied Physics Letters</i> , 2015 , 106, 192404	3.4	77

34	Graphane. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2015 , 5, 255-272	7.9	39
33	Electronic and magnetic properties of 1 T-TiSe 2 nanoribbons. <i>2D Materials</i> , 2015 , 2, 044002	5.9	16
32	Tuning the optical, magnetic, and electrical properties of ReSe2 by nanoscale strain engineering. <i>Nano Letters</i> , 2015 , 15, 1660-6	11.5	293
31	Monolayer behaviour in bulk ReS2 due to electronic and vibrational decoupling. <i>Nature Communications</i> , 2014 , 5, 3252	17.4	728
30	Formation and diffusion characteristics of Pt clusters on Graphene, 1H-MoS2 and 1T-TaS2. <i>Annalen Der Physik</i> , 2014 , 526, 423-429	2.6	11
29	Luminescence, patterned metallic regions, and photon-mediated electronic changes in single-sided fluorinated graphene sheets. <i>ACS Nano</i> , 2014 , 8, 7801-8	16.7	22
28	Tuning of the electronic and optical properties of single-layer black phosphorus by strain. <i>Physical Review B</i> , 2014 , 90,	3.3	235
27	Doping of rhenium disulfide monolayers: a systematic first principles study. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 16771-9	3.6	56
26	Monolayers of MoS2 as an oxidation protective nanocoating material. <i>Journal of Applied Physics</i> , 2014 , 116, 083508	2.5	47
25	Ag and Au atoms intercalated in bilayer heterostructures of transition metal dichalcogenides and graphene. <i>APL Materials</i> , 2014 , 2, 092801	5.7	8
24	Formation and stability of point defects in monolayer rhenium disulfide. <i>Physical Review B</i> , 2014 , 89,	3.3	118
23	Ferromagnetism in stacked bilayers of Pd/C60. <i>Journal of Magnetism and Magnetic Materials</i> , 2014 , 349, 128-134	2.8	9
22	First-principles investigation of B- and N-doped fluorographene. <i>Physical Review B</i> , 2013 , 88,	3.3	10
21	Stone-Wales defects in silicene: Formation, stability, and reactivity of defect sites. <i>Physical Review B</i> , 2013 , 88,	3.3	86
20	Adsorption and absorption of boron, nitrogen, aluminum, and phosphorus on silicene: Stability and electronic and phonon properties. <i>Physical Review B</i> , 2013 , 87,	3.3	157
19	Phonon softening and direct to indirect band gap crossover in strained single-layer MoSe2. <i>Physical Review B</i> , 2013 , 87,	3.3	162
18	Anomalous Raman spectra and thickness-dependent electronic properties of WSe2. <i>Physical Review B</i> , 2013 , 87,	3.3	341
17	Adsorption of alkali, alkaline-earth, and 3d transition metal atoms on silicene. <i>Physical Review B</i> , 2013 , 87,	3.3	259

16	Chlorine Adsorption on Graphene: Chlorographene. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 24075-24083	4.83	118
15	Frictional figures of merit for single layered nanostructures. <i>Physical Review Letters</i> , 2012 , 108, 126103	7.4	94
14	Stable, Single-Layer MX ₂ Transition-Metal Oxides and Dichalcogenides in a Honeycomb-Like Structure. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 8983-8999	3.8	992
13	Graphene coatings: An efficient protection from oxidation. <i>Physical Review B</i> , 2012 , 85,	3.3	153
12	Adsorption of carbon adatoms to graphene and its nanoribbons. <i>Journal of Applied Physics</i> , 2011 , 109, 013704	2.5	53
11	Structural, mechanical, and electronic properties of defect-patterned graphene nanomeshes from first principles. <i>Physical Review B</i> , 2011 , 84,	3.3	69
10	Mechanical and Electronic Properties of MoS ₂ Nanoribbons and Their Defects. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 3934-3941	3.8	391
9	Structures of fluorinated graphene and their signatures. <i>Physical Review B</i> , 2011 , 83,	3.3	222
8	Spintronic properties of zigzag-edged triangular graphene flakes. <i>Journal of Applied Physics</i> , 2010 , 108, 074301	2.5	61
7	Electronic and magnetic properties of graphane nanoribbons. <i>Physical Review B</i> , 2010 , 81,	3.3	122
6	Monolayer honeycomb structures of group-IV elements and III-V binary compounds: First-principles calculations. <i>Physical Review B</i> , 2009 , 80,	3.3	1401
5	Two- and one-dimensional honeycomb structures of silicon and germanium. <i>Physical Review Letters</i> , 2009 , 102, 236804	7.4	2380
4	Magnetization of graphane by dehydrogenation. <i>Applied Physics Letters</i> , 2009 , 95, 222510	3.4	105
3	First-principles calculations of spin-dependent conductance of graphene flakes. <i>Physical Review B</i> , 2008 , 78,	3.3	87
2	Temperature dependence of critical currents of two-gap superconductors. <i>EPJ Applied Physics</i> , 2006 , 36, 267-270	1.1	5
1	Analysis of Fertility in Turkey: The Importance of Future Fertility Preferences. <i>Sosyoekonomi</i> , 223-234		