Abdelkarim Ouerghi

List of Publications by Year
in descending order

59	2,279	218677	214800
papers	citations	26 h-index	47 g-index

59	59	59	4027
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High carrier mobility in single-crystal PtSe₂ grown by molecular beam epitaxy on ZnO(0001). 2D Materials, 2022, 9, 015015.	4.4	10
2	Ferromagnetism and Rashba Spinâ€“Orbit Coupling in the Two-Dimensional (V,Pt)Se₂ Alloy. ACS Applied Electronic Materials, 2022, 4, 259-268.	4.3	5
3	Evidence for highly p-type doping and type II band alignment in large scale monolayer WSe₂/Se-terminated GaAs heterojunction grown by molecular beam epitaxy. Nanoscale, 2022, 14, 5859-5868.	5.6	12
4	HgTe Nanocrystal-Based Photodiode for Extended Short-Wave Infrared Sensing with Optimized Electron Extraction and Injection. ACS Applied Nano Materials, 2022, 5, 8602-8611.	5.0	13
5	2D Monolayer of the 1Tâ€™ Phase of Alloyed WSSe from Colloidal Synthesis. Journal of Physical Chemistry C, 2021, 125, 11058-11065.	3.1	9
6	Electronic band gap of van der Waals Î±-As2Te3 crystals. Applied Physics Letters, 2021, 119, .	3.3	4
7	Indirect to direct band gap crossover in two-dimensional WS2(1â^'x)Se2x alloys. Npj 2D Materials and Applications, 2021, 5, .	7.9	31
8	Multi-order phononic frequency comb generation within a MoS2 electromechanical resonator. Applied Physics Letters, 2021, 119, .	3.3	6
9	Strain and Spin-Orbit Coupling Engineering in Twisted WS2/Graphene Heterobilayer. Nanomaterials, 2021, 11, 2921.	4.1	10
10	Time-Resolved Photoemission to Unveil Electronic Coupling between Absorbing and Transport Layers in a Quantum Dot-Based Solar Cell. Journal of Physical Chemistry C, 2020, 124, 23400-23409.	3.1	12
11	Phase Transition in a Memristive Suspended MoS₂ Monolayer Probed by Opto- and Electro-Mechanics. ACS Nano, 2020, 14, 13611-13618.	14.6	13
12	Structural and electronic transitions in few layers of isotopically pure hexagonal boron nitride. Physical Review B, 2020, 102, .	3.2	6
13	Reconfigurable 2D/0D pâ€“n Graphene/HgTe Nanocrystal Heterostructure for Infrared Detection. ACS Nano, 2020, 14, 4567-4576.	14.6	60
14	Revealing the Band Structure of FAPI Quantum Dot Film and Its Interfaces with Electron and Hole Transport Layer Using Time Resolved Photoemission. Journal of Physical Chemistry C, 2020, 124, 3873-3880.	3.1	10
15	Gate tunable vertical geometry phototransistor based on infrared HgTe nanocrystals. Applied Physics Letters, 2020, 117, .	3.3	16
16	Optoelectronic properties of methyl-terminated germanane. Applied Physics Letters, 2019, 115, .	3.3	18
17	Charge transfer and band gap opening of a ferrocene/graphene heterostructure. Carbon, 2019, 153, 557-564.	10.3	15
18	Evidence for a narrow band gap phase in 1Tâ€² WS2 nanosheet. Applied Physics Letters, 2019, 115, .	3.3	25

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19	Strong interlayer hybridization in the aligned SnS2/WSe2 hetero-bilayer structure. Npj 2D Materials and Applications, 2019, 3, .	7.9	39
20	Ionic Glassâ€“Gated 2D Materialâ€“Based Phototransistor: MoSe₂ over LaF₃ as Case Study. Advanced Functional Materials, 2019, 29, 1902723.	14.9	24
21	Field-Effect Transistor and Photo-Transistor of Narrow-Band-Gap Nanocrystal Arrays Using Ionic Glasses. Nano Letters, 2019, 19, 3981-3986.	9.1	23
22	Evidence of direct electronic band gap in two-dimensional van der Waals indium selenide crystals. Physical Review Materials, 2019, 3, .	2.4	18
23	Electronic coupling in the F4-TCNQ/single-layer GaSe heterostructure. Physical Review Materials, 2019, 3, .	2.4	5
24	Graphene FETs Based on High Resolution Nanoribbons for HF Low Power Applications. Electronic Materials Letters, 2018, 14, 133-138.	2.2	5
25	Electronic band structure of Two-Dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">WS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> /Graphene van der Waals Heterostructures. Physical Review B, 2018, 97, .	3.2	63
26	Probing Charge Carrier Dynamics to Unveil the Role of Surface Ligands in HgTe Narrow Band Gap Nanocrystals. Journal of Physical Chemistry C, 2018, 122, 859-865.	3.1	37
27	Intrinsic Properties of Suspended MoS₂ on SiO₂/Si Pillar Arrays for Nanomechanics and Optics. ACS Nano, 2018, 12, 3235-3242.	14.6	62
28	Strategy to overcome recombination limited photocurrent generation in CsPbX3 nanocrystal arrays. Applied Physics Letters, 2018, 112, .	3.3	19
29	Nanomechanical Strain Concentration on a Two-Dimensional Nanobridge within a Large Suspended Bilayer Graphene for Molecular Mass Detection. ACS Applied Nano Materials, 2018, 1, 6752-6759.	5.0	6
30	Valence band inversion and spin-orbit effects in the electronic structure of monolayer GaSe. Physical Review B, 2018, 98, .	3.2	47
31	Wave-Function Engineering in HgSe/HgTe Colloidal Heterostructures To Enhance Mid-infrared Photoconductive Properties. Nano Letters, 2018, 18, 4590-4597.	9.1	24
32	Flat electronic bands in long sequences of rhombohedral-stacked graphene. Physical Review B, 2018, 97, .	3.2	46
33	Van der Waals epitaxy of two-dimensional single-layer h-BN on graphite by molecular beam epitaxy: Electronic properties and band structure. Applied Physics Letters, 2018, 112, .	3.3	50
34	Tunable Doping in Hydrogenated Single Layered Molybdenum Disulfide. ACS Nano, 2017, 11, 1755-1761.	14.6	86
35	Stacking fault and defects in single domain multilayered hexagonal boron nitride. Applied Physics Letters, 2017, 110, .	3.3	20
36	Direct observation of the band structure in bulk hexagonal boron nitride. Physical Review B, 2017, 95, .	3.2	65

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37	Electronic structure of CdSe-ZnS 2D nanoplatelets. Applied Physics Letters, 2017, 110, .	3.3	21
38	Charge Dynamics and Optolectronic Properties in HgTe Colloidal Quantum Wells. Nano Letters, 2017, 17, 4067-4074.	9.1	48
39	Interface dipole and band bending in the hybrid <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>p</mml:mi><mml:mo>â^'</mml:mo><mml:mi>n</mml:mi heterojunction <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:mi>GaN</mml:mi><mml:mrow Physical Review B, 2017, 96, .	3.2	57
40	HgSe Self-Doped Nanocrystals as a Platform to Investigate the Effects of Vanishing Confinement. ACS Applied Materials & Interfaces, 2017, 9, 36173-36180.	8.0	40
41	Nanostructures in suspended mono- and bilayer epitaxial graphene. Carbon, 2017, 125, 162-167.	10.3	13
42	Tunable quasiparticle band gap in few-layer GaSe/graphene van der Waals heterostructures. Physical Review B, 2017, 96, .	3.2	99
43	Electrolytic phototransistor based on graphene-MoS2 van der Waals p-n heterojunction with tunable photoresponse. Applied Physics Letters, 2016, 109, .	3.3	41
44	van der Waals Epitaxy of GaSe/Graphene Heterostructure: Electronic and Interfacial Properties. ACS Nano, 2016, 10, 9679-9686.	14.6	154
45	Large area graphene nanomesh: an artificial platform for edge-electrochemical biosensing at the sub-attomolar level. Nanoscale, 2016, 8, 15479-15485.	5.6	28
46	Bandgap inhomogeneity of MoS2 monolayer on epitaxial graphene bilayer in van der Waals p-n junction. Carbon, 2016, 110, 396-403.	10.3	27
47	Large area molybdenum disulphide- epitaxial graphene vertical Van der Waals heterostructures. Scientific Reports, 2016, 6, 26656.	3.3	73
48	Band Alignment and Minigaps in Monolayer MoS₂-Graphene van der Waals Heterostructures. Nano Letters, 2016, 16, 4054-4061.	9.1	288
49	Metallic Functionalization of CdSe 2D Nanoplatelets and Its Impact on Electronic Transport. Journal of Physical Chemistry C, 2016, 120, 12351-12361.	3.1	29
50	Atomically Sharp Interface in an h-BN-epitaxial graphene van der Waals Heterostructure. Scientific Reports, 2015, 5, 16465.	3.3	62
51	Tuning the work function of monolayer graphene on 4H-SiC (0001) with nitric acid. Nanotechnology, 2015, 26, 445702.	2.6	13
52	Self-organized metal-semiconductor epitaxial graphene layer on off-axis 4H-SiC(0001). Nano Research, 2015, 8, 1026-1037.	10.4	23
53	Evidence for Flat Bands near the Fermi Level in Epitaxial Rhombohedral Multilayer Graphene. ACS Nano, 2015, 9, 5432-5439.	14.6	92
54	Wettability effect of graphene-based surfaces on silicon carbide and their influence on hydrophobicity of nanocrystalline cerium oxide films. Journal of Colloid and Interface Science, 2015, 441, 71-77.	9.4	19

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55	Investigation of structural and electronic properties of epitaxial graphene on 3C–SiC(100)/Si(100) substrates. Nanotechnology, Science and Applications, 2014, 7, 85.	4.6	10
56	Single step fabrication of N-doped graphene/Si3N4/SiC heterostructures. Nano Research, 2014, 7, 835-843.	10.4	17
57	Reversible Charge-Transfer Doping in Graphene due to Reaction with Polymer Residues. Journal of Physical Chemistry C, 2014, 118, 13890-13897.	3.1	19
58	Epitaxial Graphene on 4H-SiC(0001) Grown under Nitrogen Flux: Evidence of Low Nitrogen Doping and High Charge Transfer. ACS Nano, 2012, 6, 10893-10900.	14.6	95
59	Large-Area and High-Quality Epitaxial Graphene on Off-Axis SiC Wafers. ACS Nano, 2012, 6, 6075-6082.	14.6	97