Pierre Darancet

List of Publications by Year
in descending order

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41 papers	2,225 citations	257357 24 h-index	276775 41 g-index
44 all docs	44 docs citations	44 times ranked	3374 citing authors

#	Article	IF	Citations
1	Machine learning the metastable phase diagram of covalently bonded carbon. Nature Communications, 2022, 13, .	5.8	9
2	Synthesis of borophane polymorphs through hydrogenation of borophene. Science, 2021, 371, 1143-1148.	6.0	129
3	Electronic Structure of Metallophthalocyanines, MPc (M = Fe, Co, Ni, Cu, Zn, Mg) and Fluorinated MPc. Journal of Physical Chemistry A, 2021, 125, 4055-4061.	1.1	17
4	Observation of Single-Electron Transport and Charging on Individual Point Defects in Atomically Thin WSe₂. Journal of Physical Chemistry C, 2021, 125, 14056-14064.	1.5	5
5	Mechanistic Investigation of Molybdenum Disulfide Defect Photoluminescence Quenching by Adsorbed Metallophthalocyanines. Journal of the American Chemical Society, 2021, 143, 17153-17161.	6.6	12
6	Range-separated hybrid functionals for mixed dimensional heterojunctions: Application to phthalocyanines/MoS2. APL Materials, 2021, 9, .	2.2	9
7	Monolayer and Bilayer Perfluoropentacene on Cu(111). Journal of Physical Chemistry C, 2020, 124, 653-658.	1.5	2
8	Microscopic Theory of Plasmons in Substrate-Supported Borophene. Nano Letters, 2020, 20, 2986-2992.	4.5	11
9	Two-Dimensional Molecular Charge Density Waves in Single-Layer-Thick Islands of a Dirac Fermion System. ACS Nano, 2020, 14, 8887-8893.	7.3	5
10	Molecular-Scale Characterization of Photoinduced Charge Separation in Mixed-Dimensional InSeâ€“Organic van der Waals Heterostructures. ACS Nano, 2020, 14, 3509-3518.	7.3	17
11	Inverse Design of a Graphene-Based Quantum Transducer via Neuroevolution. Journal of Physical Chemistry C, 2020, 124, 26117-26123.	1.5	8
12	Charge Separation in Epitaxial SnS/MoS₂ Vertical Heterojunctions Grown by Low-Temperature Pulsed MOCVD. ACS Applied Materials & Interfaces, 2019, 11, 40543-40550.	4.0	16
13	Large Band Edge Tunability in Colloidal Nanoplatelets. Nano Letters, 2019, 19, 7124-7129.	4.5	15
14	Electronic Coupling in Metallophthalocyanineâ€“Transition Metal Dichalcogenide Mixed-Dimensional Heterojunctions. ACS Nano, 2019, 13, 4183-4190.	7.3	54
15	Anisotropic structural dynamics of monolayer crystals revealed by femtosecond surface X-ray scattering. Nature Photonics, 2019, 13, 425-430.	15.6	28
16	Quantum Paraelastic Two-Dimensional Materials. Physical Review Letters, 2019, 122, 015703.	2.9	13
17	First-Principles Investigation of Borophene as a Monolayer Transparent Conductor. Journal of Physical Chemistry C, 2018, 122, 4037-4045.	1.5	89
18	Cross-plane coherent acoustic phonons in two-dimensional organic-inorganic hybrid perovskites. Nature Communications, 2018, 9, 2019.	5.8	71

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19	Slow thermal equilibration in methylammonium lead iodide revealed by transient mid-infrared spectroscopy. Nature Communications, 2018, 9, 2792.	5.8	25
20	Spatially resolved, substrate-induced rectification in C60 bilayers on copper. Journal of Chemical Physics, 2017, 146, .	1.2	3
21	Theory of Thermal Relaxation of Electrons in Semiconductors. Physical Review Letters, 2017, 119, 136602.	2.9	78
22	Surface-Area-Dependent Electron Transfer Between Isoenergetic 2D Quantum Wells and a Molecular Acceptor. Journal of the American Chemical Society, 2016, 138, 11109-11112.	6.6	35
23	Mechanism for Siâ€“Si Bond Rupture in Single Molecule Junctions. Journal of the American Chemical Society, 2016, 138, 16159-16164.	6.6	29
24	Large Spatially Resolved Rectification in a Donorâ€“Acceptor Molecular Heterojunction. Nano Letters, 2016, 16, 2603-2607.	4.5	21
25	Adsorption-Induced Solvent-Based Electrostatic Gating of Charge Transport through Molecular Junctions. Nano Letters, 2015, 15, 4498-4503.	4.5	34
26	Molecular diodes enabled by quantum interference. Faraday Discussions, 2014, 174, 79-89.	1.6	29
27	Tunable Charge Transport in Single-Molecule Junctions via Electrolytic Gating. Nano Letters, 2014, 14, 1400-1404.	4.5	107
28	Three-dimensional metallic and two-dimensional insulating behavior in octahedral tantalum dichalcogenides. Physical Review B, 2014, 90, .	1.1	124
29	Determination of Energy Level Alignment and Coupling Strength in 4,4â€²-Bipyridine Single-Molecule Junctions. Nano Letters, 2014, 14, 794-798.	4.5	112
30	Physical Adsorption and Charge Transfer of Molecular Br₂ on Graphene. ACS Nano, 2014, 8, 2943-2950.	7.3	58
31	Tuning Rectification in Single-Molecular Diodes. Nano Letters, 2013, 13, 6233-6237.	4.5	169
32	Low-Energy Charge-Transfer Excitons in Organic Solids from First-Principles: The Case of Pentacene. Journal of Physical Chemistry Letters, 2013, 4, 2197-2201.	2.1	166
33	Quantitative Currentâ€“Voltage Characteristics in Molecular Junctions from First Principles. Nano Letters, 2012, 12, 6250-6254.	4.5	72
34	Quantitative molecular orbital energies within a G0W0 approximation. European Physical Journal B, 2012, 85, 1.	0.6	52
35	Simultaneous Determination of Conductance and Thermopower of Single Molecule Junctions. Nano Letters, 2012, 12, 354-358.	4.5	251
36	Inverse Rectification in Donorâ€“Acceptor Molecular Heterojunctions. ACS Nano, 2011, 5, 9256-9263.	7.3	77

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37	Electronic energy level alignment at metal-molecule interfaces with a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:math>approach. Physical Review B, 2011, 84, .	1.1	75
38	Quantum transport through resistive nanocontacts: Effective one-dimensional theory and conductance formulas for nonballistic leads. Physical Review B, 2010, 81, .	1.1	13
39	Coherent Electronic Transport through Graphene Constrictions: Subwavelength Regime and Optical Analogy. Physical Review Letters, 2009, 102, 136803.	2.9	74
40	Quenching of the Quantum Hall Effect in Multilayered Epitaxial Graphene: The Role of Undoped Planes. Physical Review Letters, 2008, 101, 116806.	2.9	12
41	Ab initioGWelectron-electron interaction effects in quantum transport. Physical Review B, 2007, 75, .	1.1	97