

Xavier Roy

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6630422/publications.pdf>

Version: 2024-02-01

86
papers

3,956
citations

116194

36
h-index

145109

60
g-index

94
all docs

94
docs citations

94
times ranked

5083
citing authors

#	ARTICLE	IF	CITATIONS
1	Site-Selective Surface Modification of 2D Superatomic Re ₆ Se ₈ . Journal of the American Chemical Society, 2022, 144, 74-79.	6.6	10
2	Superatom Regiochemistry Dictates the Assembly and Surface Reactivity of a Two-Dimensional Material. Journal of the American Chemical Society, 2022, 144, 1119-1124.	6.6	6
3	Reversible strain-induced magnetic phase transition in a van der Waals magnet. Nature Nanotechnology, 2022, 17, 256-261.	15.6	93
4	Broad-band Chiral Absorbance of Visible Light. Journal of the American Chemical Society, 2022, 144, 5263-5267.	6.6	3
5	High-Spin Superatom Stabilized by Dual Subshell Filling. Journal of the American Chemical Society, 2022, 144, 5172-5179.	6.6	8
6	Controlling Ligand Coordination Spheres and Cluster Fusion in Superatoms. Journal of the American Chemical Society, 2022, 144, 306-313.	6.6	10
7	The Magnetic Genome of Two-Dimensional van der Waals Materials. ACS Nano, 2022, 16, 6960-7079.	7.3	149
8	Coupling between magnetic order and charge transport in a two-dimensional magnetic semiconductor. Nature Materials, 2022, 21, 754-760.	13.3	60
9	Visualizing Atomically Layered Magnetism in CrSBr. Advanced Materials, 2022, 34, e2201000.	11.1	22
10	From atom-precise nanoclusters to superatom materials. Journal of Chemical Physics, 2022, 156, 170401.	1.2	11
11	Increased Molecular Conductance in Oligo[<i>n</i>]phenylene Wires by Thermally Enhanced Dihedral Planarization. Nano Letters, 2022, 22, 4919-4924.	4.5	9
12	Spin injection by spin-charge coupling in proximity induced magnetic graphene. 2D Materials, 2022, 9, 045003.	2.0	6
13	Spin Waves and Magnetic Exchange Hamiltonian in CrSBr. Advanced Science, 2022, 9, .	5.6	20
14	High-performance organic pseudocapacitors via molecular contortion. Nature Materials, 2021, 20, 1136-1141.	13.3	103
15	Magnetic Order and Symmetry in the 2D Semiconductor CrSBr. Nano Letters, 2021, 21, 3511-3517.	4.5	141
16	Superatomic solid solutions. Nature Chemistry, 2021, 13, 607-613.	6.6	15
17	Electrical and thermal generation of spin currents by magnetic bilayer graphene. Nature Nanotechnology, 2021, 16, 788-794.	15.6	71
18	Interlayer electronic coupling on demand in a 2D magnetic semiconductor. Nature Materials, 2021, 20, 1657-1662.	13.3	94

#	ARTICLE	IF	CITATIONS
19	Exchange Bias from Frustrated Spins. ACS Central Science, 2021, 7, 1295-1297.	5.3	1
20	A single-molecule blueprint for synthesis. Nature Reviews Chemistry, 2021, 5, 695-710.	13.8	24
21	Polytypism, Anisotropic Transport, and Weyl Nodes in the van der Waals Metal TaFeTe ₄ . Journal of the American Chemical Society, 2021, 143, 109-113.	6.6	4
22	Cyclopropenylidenes as Strong Carbene Anchoring Groups on Au Surfaces. Journal of the American Chemical Society, 2020, 142, 19902-19906.	6.6	11
23	Intermolecular Resonance Correlates Electron Pairs Down a Supermolecular Chain: Antiferromagnetism in K-Doped p-Terphenyl. Journal of the American Chemical Society, 2020, 142, 20624-20630.	6.6	3
24	Layered Antiferromagnetism Induces Large Negative Magnetoresistance in the van der Waals Semiconductor CrSBr. Advanced Materials, 2020, 32, e2003240.	11.1	116
25	Mechanically Tunable Quantum Interference in Ferrocene-Based Single-Molecule Junctions. Nano Letters, 2020, 20, 6381-6386.	4.5	52
26	Single-Electron Currents in Designer Single-Cluster Devices. Journal of the American Chemical Society, 2020, 142, 14924-14932.	6.6	16
27	Strong polaronic effect in a superatomic two-dimensional semiconductor. Journal of Chemical Physics, 2020, 152, 171101.	1.2	8
28	Charge carrier scattering and ultrafast Auger dynamics in two-dimensional superatomic semiconductors. Applied Physics Letters, 2020, 116, 201109.	1.5	1
29	Dimensional Control of Assembling Metal Chalcogenide Clusters. European Journal of Inorganic Chemistry, 2020, 2020, 1245-1254.	1.0	19
30	Gold-Carbon Contacts from Oxidative Addition of Aryl Iodides. Journal of the American Chemical Society, 2020, 142, 7128-7133.	6.6	31
31	Shape Matching in Superatom Chemistry and Assembly. Journal of the American Chemical Society, 2020, 142, 11993-11998.	6.6	11
32	FeOF/TiO ₂ Hetero-Nanostructures for High-Areal-Capacity Fluoride Cathodes. ACS Applied Materials & Interfaces, 2020, 12, 33803-33809.	4.0	12
33	Doping-Induced Superconductivity in the van der Waals Superatomic Crystal Re ₆ Se ₈ Cl ₂ . Nano Letters, 2020, 20, 1718-1724.	4.5	28
34	Superatoms in materials science. Nature Reviews Materials, 2020, 5, 371-387.	23.3	105
35	Dimensional Control of Assembling Metal Chalcogenide Clusters. European Journal of Inorganic Chemistry, 2020, 2020, 1243-1243.	1.0	0
36	Hierarchical Coherent Phonons in a Superatomic Semiconductor. Advanced Materials, 2019, 31, e1903209.	11.1	9

#	ARTICLE	IF	CITATIONS
37	Solution-Processable Superatomic Thin-Films. <i>Journal of the American Chemical Society</i> , 2019, 141, 10967-10971.	6.6	11
38	In Situ Coupling of Single Molecules Driven by Gold-Catalyzed Electrooxidation. <i>Angewandte Chemie</i> , 2019, 131, 16154-16158.	1.6	3
39	Nickel Phosphinidene Molecular Clusters from Organocyclophosphine Precursors. <i>Chemistry - A European Journal</i> , 2019, 25, 10840-10844.	1.7	8
40	Ligand Effect on the Electronic Structure of Cobalt Sulfide Clusters: A Combined Experimental and Theoretical Study. <i>Journal of Physical Chemistry C</i> , 2019, 123, 25121-25127.	1.5	13
41	Determination of the structure and geometry of N-heterocyclic carbenes on Au(111) using high-resolution spectroscopy. <i>Chemical Science</i> , 2019, 10, 930-935.	3.7	64
42	Tuning the electronic properties of hexanuclear cobalt sulfide superatoms via ligand substitution. <i>Chemical Science</i> , 2019, 10, 1760-1766.	3.7	24
43	In Situ Coupling of Single Molecules Driven by Gold-Catalyzed Electrooxidation. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 16008-16012.	7.2	23
44	Mo ₆ S ₃ Br ₆ : An Anisotropic 2D Superatomic Semiconductor. <i>Advanced Functional Materials</i> , 2019, 29, 1902951.	7.8	10
45	Microporous Battery Electrodes from Molecular Cluster Precursors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 11292-11297.	4.0	8
46	Two-Dimensional Fullerene Assembly from an Exfoliated van der Waals Template. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 6125-6129.	7.2	18
47	Multifunctional Vesicles from a Self-assembled Cluster-Containing Diblock Copolymer. <i>Journal of the American Chemical Society</i> , 2018, 140, 5607-5611.	6.6	23
48	Superatomic Two-Dimensional Semiconductor. <i>Nano Letters</i> , 2018, 18, 1483-1488.	4.5	41
49	Controlled Electrochemical Intercalation of Graphene/h-BN van der Waals Heterostructures. <i>Nano Letters</i> , 2018, 18, 460-466.	4.5	49
50	Two-Dimensional Fullerene Assembly from an Exfoliated van der Waals Template. <i>Angewandte Chemie</i> , 2018, 130, 6233-6237.	1.6	6
51	Molecular Clusters: Nanoscale Building Blocks for Solid-State Materials. <i>Accounts of Chemical Research</i> , 2018, 51, 919-929.	7.6	126
52	Spontaneous Electronic Band Formation and Switchable Behaviors in a Phase-Rich Superatomic Crystal. <i>Journal of the American Chemical Society</i> , 2018, 140, 15601-15605.	6.6	17
53	Electron Cartography in Clusters. <i>Angewandte Chemie</i> , 2018, 130, 14011-14016.	1.6	4
54	Modulating the hierarchical/fibrous assembly of Au nanoparticles with atomic precision. <i>Nature Communications</i> , 2018, 9, 3871.	5.8	77

#	ARTICLE	IF	CITATIONS
55	Electron Cartography in Clusters. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 13815-13820.	7.2	24
56	In Situ Formation of N-Heterocyclic Carbene-Bound Single-Molecule Junctions. <i>Journal of the American Chemical Society</i> , 2018, 140, 8944-8949.	6.6	54
57	Two-Dimensional Hierarchical Semiconductor with Addressable Surfaces. <i>Journal of the American Chemical Society</i> , 2018, 140, 9369-9373.	6.6	22
58	Designing Three-Dimensional Architectures for High-Performance Electron Accepting Pseudocapacitors. <i>Journal of the American Chemical Society</i> , 2018, 140, 10960-10964.	6.6	78
59	Unbalanced Hole and Electron Diffusion in Lead Bromide Perovskites. <i>Nano Letters</i> , 2017, 17, 1727-1732.	4.5	100
60	Electronically Transparent Au-N Bonds for Molecular Junctions. <i>Journal of the American Chemical Society</i> , 2017, 139, 14845-14848.	6.6	76
61	Two-Dimensional Nanosheets from Redox-Active Superatoms. <i>ACS Central Science</i> , 2017, 3, 1050-1055.	5.3	38
62	Distinct properties of the triplet pair state from singlet fission. <i>Science Advances</i> , 2017, 3, e1700241.	4.7	102
63	Dimerization of Endohedral Fullerene in a Superatomic Crystal. <i>Chemistry - A European Journal</i> , 2017, 23, 13305-13308.	1.7	13
64	Phonon Speed, Not Scattering, Differentiates Thermal Transport in Lead Halide Perovskites. <i>Nano Letters</i> , 2017, 17, 5734-5739.	4.5	94
65	Single-crystal-to-single-crystal intercalation of a low-bandgap superatomic crystal. <i>Nature Chemistry</i> , 2017, 9, 1170-1174.	6.6	56
66	Room-temperature current blockade in atomically defined single-cluster junctions. <i>Nature Nanotechnology</i> , 2017, 12, 1050-1054.	15.6	75
67	Orientational order controls crystalline and amorphous thermal transport in superatomic crystals. <i>Nature Materials</i> , 2017, 16, 83-88.	13.3	94
68	Patterning Superatom Dopants on Transition Metal Dichalcogenides. <i>Nano Letters</i> , 2016, 16, 3385-3389.	4.5	47
69	Solvent-dependent conductance decay constants in single cluster junctions. <i>Chemical Science</i> , 2016, 7, 2701-2705.	3.7	31
70	Limits of Carrier Diffusion in <i>n</i> -Type and <i>p</i> -Type CH ₃ NH ₃ PbI ₃ Perovskite Single Crystals. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3510-3518.	2.1	86
71	Building Diatomic and Triatomic Superatom Molecules. <i>Nano Letters</i> , 2016, 16, 5273-5277.	4.5	65
72	High Oxidation State Iridium Mono- μ_4 -oxo Dimers Related to Water Oxidation Catalysis. <i>Journal of the American Chemical Society</i> , 2016, 138, 15917-15926.	6.6	41

#	ARTICLE	IF	CITATIONS
73	van der Waals Solids from Self-Assembled Nanoscale Building Blocks. <i>Nano Letters</i> , 2016, 16, 1445-1449.	4.5	56
74	Quantitative Intramolecular Singlet Fission in Bipentacenes. <i>Journal of the American Chemical Society</i> , 2015, 137, 8965-8972.	6.6	324
75	Ligand Control of Manganese Telluride Molecular Cluster Core Nuclearity. <i>Inorganic Chemistry</i> , 2015, 54, 8348-8355.	1.9	28
76	Ferromagnetic Ordering in Superatomic Solids. <i>Journal of the American Chemical Society</i> , 2014, 136, 16926-16931.	6.6	58
77	Assembling Hierarchical Cluster Solids with Atomic Precision. <i>Journal of the American Chemical Society</i> , 2014, 136, 15873-15876.	6.6	56
78	Nanoscale Atoms in Solid-State Chemistry. <i>Science</i> , 2013, 341, 157-160.	6.0	199
79	Innenrücktitelbild: Quantum Soldering of Individual Quantum Dots (<i>Angew. Chem.</i> 50/2012). <i>Angewandte Chemie</i> , 2012, 124, 12797-12797.	1.6	0
80	Quantum Soldering of Individual Quantum Dots. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 12473-12476.	7.2	37
81	Molecular Scaffolding of Prussian Blue Analogues Using a Phenanthroline-Extended Triptycene Ligand. <i>Crystal Growth and Design</i> , 2011, 11, 4551-4558.	1.4	28
82	Prussian Blue Nanocontainers: Selectively Permeable Hollow Metal-Organic Capsules from Block Ionomer Emulsion-Induced Assembly. <i>Journal of the American Chemical Society</i> , 2011, 133, 8420-8423.	6.6	80
83	Soluble Prussian Blue Nanoworms from the Assembly of Metal-Organic Block Ionomers. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 1597-1602.	7.2	41
84	Coordination Chemistry: New Routes to Mesostructured Materials. <i>Chemistry - A European Journal</i> , 2009, 15, 6552-6559.	1.7	42
85	Mesostructured Prussian Blue Analogues. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 511-514.	7.2	68
86	Cover Picture: Mesostructured Prussian Blue Analogues (<i>Angew. Chem. Int. Ed.</i> 3/2008). <i>Angewandte Chemie - International Edition</i> , 2007, 47, 419-419.	7.2	0