Joshua E Goldberger

List of Publications by Year
in descending order

98 papers	19,909 citations	66250 44 h-index	42259 96 g-index
107 all docs	107 docs citations	107 times ranked	29094 citing authors

#	Article	IF	Citations
1	Progress, Challenges, and Opportunities in Two-Dimensional Materials Beyond Graphene. ACS Nano, 2013, 7, 2898-2926.	7.3	4,062
2	Low-Temperature Wafer-Scale Production of ZnO Nanowire Arrays. Angewandte Chemie - International Edition, 2003, 42, 3031-3034.	7.2	1,562
3	General Route to Vertical ZnO Nanowire Arrays Using Textured ZnO Seeds. Nano Letters, 2005, 5, 1231-1236.	4.5	1,382
4	SEMICONDUCTOR NANOWIRES AND NANOTUBES. Annual Review of Materials Research, 2004, 34, 83-122.	4.3	1,304
5	Langmuirâ^'Blodgett Silver Nanowire Monolayers for Molecular Sensing Using Surface-Enhanced Raman Spectroscopy. Nano Letters, 2003, 3, 1229-1233.	4.5	1,267
6	Single-crystal gallium nitride nanotubes. Nature, 2003, 422, 599-602.	13.7	1,214
7	Stability and Exfoliation of Germanane: A Germanium Graphane Analogue. ACS Nano, 2013, 7, 4414-4421.	7.3	910
8	Nanoribbon Waveguides for Subwavelength Photonics Integration. Science, 2004, 305, 1269-1273.	6.0	879
9	Silicon Vertically Integrated Nanowire Field Effect Transistors. Nano Letters, 2006, 6, 973-977.	4.5	730
10	Buckled two-dimensional Xene sheets. Nature Materials, 2017, 16, 163-169.	13.3	641
11	ZnO Nanowire Transistors. Journal of Physical Chemistry B, 2005, 109, 9-14.	1.2	561
12	Crystallographic alignment of high-density gallium nitride nanowire arrays. Nature Materials, 2004, 3, 524-528.	13.3	454
13	Pressure-controlled interlayer magnetism in atomically thin CrI3. Nature Materials, 2019, 18, 1303-1308.	13.3	364
14	Metalorganic Chemical Vapor Deposition Route to GaN Nanowires with Triangular Cross Sections. Nano Letters, 2003, 3, 1063-1066.	4.5	362
15	Inorganic Nanotubes:â€‰ A Novel Platform for Nanofluidics. Accounts of Chemical Research, 2006, 39, 239-248.	7.6	293
16	Self-Organized GaN Quantum Wire UV Lasers. Journal of Physical Chemistry B, 2003, 107, 8721-8725.	1.2	281
17	Improving the stability and optical properties of germanane via one-step covalent methyl-termination. Nature Communications, 2014, 5, 3389.	5.8	201
18	Watching GaN Nanowires Grow. Nano Letters, 2003, 3, 867-869.	4.5	188

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19	Fine-Tuning the pH Trigger of Self-Assembly. Journal of the American Chemical Society, 2012, 134, 3647-3650.	6.6	178
20	A synergistic assembly of nanoscale lamellar photoconductor hybrids. Nature Materials, 2009, 8, 68-75.	13.3	174
21	Aligned neurite outgrowth and directed cell migration in self-assembled monodomain gels. Biomaterials, 2014, 35, 185-195.	5.7	173
22	Synthesis and Thermoelectrical Characterization of Lead Chalcogenide Nanowires. Advanced Materials, 2007, 19, 3047-3051.	11.1	156
23	Fundamental Spin Interactions Underlying the Magnetic Anisotropy in the Kitaev Ferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CrI</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></ Physical Review Letters, 2020, 124, 017201.	2.9	132
24	Raman Spectroscopy, Photocatalytic Degradation, and Stabilization of Atomically Thin Chromium Tri-iodide. Nano Letters, 2018, 18, 4214-4219.	4.5	131
25	Low-Temperature Wafer-Scale Production of ZnO Nanowire Arrays. Angewandte Chemie, 2003, 115, 3139-3142.	1.6	129
26	Coexisting ferromagneticâ€“antiferromagnetic state in twisted bilayer CrI3. Nature Nanotechnology, 2022, 17, 143-147.	15.6	115
27	Self-assembly and conductivity of hydrogen-bonded oligothiophene nanofiber networks. Chemical Communications, 2011, 47, 5702.	2.2	95
28	Covalently-Controlled Properties by Design in Group IV Graphane Analogues. Accounts of Chemical Research, 2015, 48, 144-151.	7.6	94
29	Gate-tunable spin waves in antiferromagnetic atomic bilayers. Nature Materials, 2020, 19, 838-842.	13.3	90
30	Electrostatic Control of Bioactivity. Angewandte Chemie - International Edition, 2011, 50, 6292-6295.	7.2	79
31	Deterministic switching of a perpendicularly polarized magnet using unconventional spinâ€“orbit torques in WTe2. Nature Materials, 2022, 21, 1029-1034.	13.3	75
32	A tenascin-C mimetic peptide amphiphile nanofiber gel promotes neurite outgrowth and cell migration of neurosphere-derived cells. Acta Biomaterialia, 2016, 37, 50-58.	4.1	74
33	Tailoring the Electronic Structure of Covalently Functionalized Germanane via the Interplay of Ligand Strain and Electronegativity. Chemistry of Materials, 2016, 28, 8071-8077.	3.2	71
34	Tunable gaps and enhanced mobilities in strain-engineered silicane. Journal of Applied Physics, 2014, 115, .	1.1	68
35	A first principles method to simulate electron mobilities in 2D materials. New Journal of Physics, 2014, 16, 105009.	1.2	60
36	Distinct magneto-Raman signatures of spin-flip phase transitions in CrI3. Nature Communications, 2020, 11, 3879.	5.8	59

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37	Mineralization of peptide amphiphile nanofibers and its effect on the differentiation of human mesenchymal stem cells. Acta Biomaterialia, 2012, 8, 2456-2465.	4.1	56
38	Electrostatics of nanowire transistors with triangular cross sections. Journal of Applied Physics, 2006, 99, 054310.	1.1	54
39	Synthesis of 1T, 2H, and 6R Germanane Polytypes. Chemistry of Materials, 2018, 30, 1335-1343.	3.2	53
40	Mechanism of the pH-Controlled Self-Assembly of Nanofibers from Peptide Amphiphiles. Journal of Physical Chemistry C, 2014, 118, 16272-16278.	1.5	52
41	Crystal structures of disordered A2Mn3+M5+O6 (A=Sr, Ca; M=Sb, Nb, Ru) perovskites. Journal of Solid State Chemistry, 2004, 177, 1651-1659.	1.4	49
42	EuSn₂As₂: an exfoliatable magnetic layered Zintlâ€“Klemm phase. Inorganic Chemistry Frontiers, 2017, 4, 378-386.	3.0	48
43	Large area epitaxial germanane for electronic devices. 2D Materials, 2015, 2, 035012.	2.0	47
44	Decomposition-Induced Room-Temperature Magnetism of the Na-Intercalated Layered Ferromagnet Fe_{3â€“x}GeTe₂. Nano Letters, 2019, 19, 5031-5035.	4.5	46
45	The Fermi surface geometrical origin of axis-dependent conduction polarity in layered materials. Nature Materials, 2019, 18, 568-572.	13.3	46
46	Dimensional Reduction of a Layered Metal Chalcogenide into a 1D Near-IR Direct Band Gap Semiconductor. Journal of the American Chemical Society, 2012, 134, 5044-5047.	6.6	44
47	The structure and amorphization of germanane. Journal of Materials Chemistry C, 2014, 2, 3185.	2.7	44
48	Phase separation over an extended compositional range:â€ƒStudies of theCa1â^'xBixMnO3(x<~0.25)phase diagram. Physical Review B, 2000, 62, 14928-14942.	1.1	42
49	Synthesis and Stability of Two-Dimensional Ge/Sn Graphane Alloys. Chemistry of Materials, 2014, 26, 6941-6946.	3.2	42
50	NaSn₂As₂: An Exfoliatable Layered van der Waals Zintl Phase. ACS Nano, 2016, 10, 9500-9508.	7.3	39
51	Covalent functionalization of two-dimensional group 14 graphane analogues. Chemical Society Reviews, 2018, 47, 6201-6223.	18.7	38
52	Li Intercalation into 1D TiS2(en) Chains. Journal of the American Chemical Society, 2014, 136, 2986-2989.	6.6	35
53	Improved Topotactic Reactions for Maximizing Organic Coverage of Methyl Germanane. Chemistry of Materials, 2016, 28, 4735-4740.	3.2	34
54	Nonaqueous, Molecular Precursor Route to Hybrid Inorganic/Organic Zirconiaâ^'Silica Materials Containing Covalently Linked Organic Bridges. Chemistry of Materials, 2003, 15, 1040-1046.	3.2	33

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55	Electronic, Magnetic, and Structural Properties of Sr₂MnRuO₆ and LaSrMnRuO₆ Double Perovskites. Journal of the American Ceramic Society, 2008, 91, 1796-1806.	1.9	32
56	Epitaxial co-deposition growth of CaGe₂ films by molecular beam epitaxy for large area germanane. Journal of Materials Research, 2014, 29, 410-416.	1.2	30
57	Transition Metal-Free Alkyne Hydrogenation Catalysis with BaGa₂, a Hydrogen Absorbing Layered Zintl Phase. Journal of the American Chemical Society, 2019, 141, 19969-19972.	6.6	29
58	Highly efficient transverse thermoelectric devices with Re₄Si₇ crystals. Energy and Environmental Science, 2021, 14, 4009-4017.	15.6	29
59	Revealing the Spectrum of Unknown Layered Materials with Superhuman Predictive Abilities. Journal of Physical Chemistry Letters, 2018, 9, 6967-6972.	2.1	25
60	Orienting Periodic Organicâ^'Inorganic Nanoscale Domains Through One-Step Electrodeposition. ACS Nano, 2011, 5, 565-573.	7.3	24
61	Electronic, magnetic and structural properties of A2VMoO6 perovskites (A=Ca, Sr). Journal of Solid State Chemistry, 2006, 179, 2120-2125.	1.4	23
62	Optical properties and Raman-active phonon modes of two-dimensional honeycomb Zintl phases. Journal of Materials Chemistry C, 2017, 5, 11259-11266.	2.7	23
63	Assembling p-type molecules on single wall carbon nanotubes for photovoltaic devices. Chemical Communications, 2009, , 3705.	2.2	21
64	Programming pH-Triggered Self-Assembly Transitions via Isomerization of Peptide Sequence. Langmuir, 2014, 30, 15383-15387.	1.6	21
65	Water activated doping and transport in multilayered germanane crystals. Journal of Physics Condensed Matter, 2016, 28, 034001.	0.7	21
66	Probing Peptide Amphiphile Self-Assembly in Blood Serum. Biomacromolecules, 2014, 15, 4488-4494.	2.6	19
67	The Chemical Design Principles for Axis-Dependent Conduction Polarity. Journal of the American Chemical Society, 2020, 142, 2812-2822.	6.6	18
68	Group-13 and group-15 doping of germanane. Beilstein Journal of Nanotechnology, 2017, 8, 1642-1648.	1.5	17
69	Atomic-Scale Derivatives of Solid-State Materials. Chemistry of Materials, 2015, 27, 3549-3559.	3.2	15
70	Dimensionally Reduced One-Dimensional Chains of TiSe₂. Chemistry of Materials, 2013, 25, 1477-1479.	3.2	13
71	Computationally Guided Discovery of Axis-Dependent Conduction Polarity in NaSnAs Crystals. Chemistry of Materials, 2021, 33, 946-951.	3.2	13
72	Basal-plane thermal conductivity of nanocrystalline and amorphized thin germanane. Applied Physics Letters, 2016, 109, 131907.	1.5	11

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73	Balancing the intermolecular forces in peptide amphiphiles for controlling self-assembly transitions. Organic and Biomolecular Chemistry, 2017, 15, 5220-5226.	1.5	11
74	Rational Synthesis of Dimensionally Reduced TiS₂ Phases. Chemistry of Materials, 2014, 26, 4776-4780.	3.2	10
75	Suppression of magnetic ordering in Fe-deficient <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Fe</mml:mi><mml:mrow><mml:mn>3</mml:mn> mathvariant="normal">Te</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> from application of pressure. Physical Review B, 2020, 102, .	1.1	9
76	Cr_xPt_{1â€“x}Te₂ (x â‰ˆ 0.45): A Family of Air-Stable and Exfoliatable van der Waals Ferromagnets. ACS Nano, 2022, 16, 3852-3860.	7.3	9
77	Adiabatic and isothermal configurations for Re4Si7 transverse thermoelectric power generators. Applied Physics Reviews, 2022, 9, .	5.5	9
78	Influence of Surface Chemistry on Water Absorption in Functionalized Germanane. Chemistry of Materials, 2020, 32, 1537-1544.	3.2	8
79	Inter- and Intralayer Compression of Germanane. Journal of Physical Chemistry C, 2014, 118, 28196-28201.	1.5	7
80	Identification of Ge vacancies as electronic defects in methyl- and hydrogen-terminated germanane. Applied Physics Letters, 2018, 113, 061110.	1.5	7
81	Alkyne Hydrogenation Catalysis across a Family of Ga/In Layered Zintl Phases. ACS Applied Materials & Interfaces, 2021, 13, 52152-52159.	4.0	6
82	Synthesis and characterization of a new family of layered Pb_xSn_{4â^'x}As₃alloys. Journal of Materials Chemistry C, 2021, 9, 6477-6483.	2.7	5
83	A Vanadium Chalcogenide Dicubane. European Journal of Inorganic Chemistry, 2016, 2016, 28-32.	1.0	4
84	Identification of turbostratic twisting in germanane. Journal of Materials Chemistry C, 2019, 7, 10092-10097.	2.7	4
85	Synthesis, structural, and electronic properties of Sr_{1â^'x}Ca_xPdAs. Inorganic Chemistry Frontiers, 2020, 7, 2833-2839.	3.0	3
86	Low-Pressure Induced Disproportionation of Barium Distannide. Journal of Physical Chemistry C, 2021, 125, 15496-15502.	1.5	3
87	Dynamics of Two Distinct Exciton Populations in Methyl-Functionalized Germanane. Nano Letters, 2022, 22, 1183-1189.	4.5	3
88	Low-Temperature Wafer-Scale Production of ZnO Nanowire Arrays.. ChemInform, 2003, 34, no.	0.1	2
89	Anomalous electronic properties in layered, disordered ZnVSb. Physical Review Materials, 2021, 5, .	0.9	2
90	Lucky Number 13: A 13-Layer Polytype of the Alkyne Hydrogenation Catalyst CaGaGe. Inorganic Chemistry, 2021, 60, 14530-14534.	1.9	2

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91	Single-Crystal Gallium Nitride Nanotubes.. ChemInform, 2003, 34, no.	0.1	1
92	(Invited) Germanium at the Atomic Scale. ECS Transactions, 2014, 64, 625-628.	0.3	1
93	Electron Diffraction of Germanane. Microscopy and Microanalysis, 2017, 23, 1744-1745.	0.2	1
94	Stepwise trimethylsilyl and trimethylgermyl substitutions at tetraborylmethane. Journal of Organometallic Chemistry, 2018, 873, 50-56.	0.8	1
95	RÃ¼cktitelbild: Electrostatic Control of Bioactivity (Angew. Chem. 28/2011). Angewandte Chemie, 2011, 123, 6308-6308.	1.6	0
96	Finding a Needle in a Haystack: Success stories of Data Mining and Machine Learning for Electronic Materials Selection. , 2021, , .		0
97	Ca₂Ga₄Ge₆ and Ca₃Ga₄Ge₆: Synthesis, Structure, and Electronic Properties. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2022, 648, .	0.6	0
98	Chemical methods for Xenes. , 2022, , 255-294.		0