Robert M Jacobberger

List of Publications by Year
in descending order

49 papers	1,738 citations	257450 24 h-index	276875 41 g-index
50 all docs	50 docs citations	50 times ranked	2948 citing authors

#	Article	IF	Citations
1	Non-fullerene acceptors with direct and indirect hexa-fluorination afford >17% efficiency in polymer solar cells. Energy and Environmental Science, 2022, 15, 645-659.	30.8	65
2	Using Molecular Design to Enhance the Coherence Time of Quintet Multiexcitons Generated by Singlet Fission in Single Crystals. Journal of the American Chemical Society, 2022, 144, 2276-2283.	13.7	35
3	Graphene nanoribbons initiated from molecularly derived seeds. Nature Communications, 2022, 13, .	12.8	9
4	Effect of Crystallinity on Endoergic Singlet Fission in Perylenediimide Single Crystals and Polycrystalline Films. Journal of Physical Chemistry C, 2022, 126, 10287-10297.	3.1	10
5	Photophysics of Zinc 2,11,20,29-Tetra-<i>tert</i>-butyl-2,3-Naphthalocyanine: Aggregation-Induced S₂ Emission and Rapid Intersystem Crossing in the Solid State. Journal of Physical Chemistry C, 2022, 126, 11680-11689.	3.1	1
6	Effect of Germanium Surface Orientation on Graphene Chemical Vapor Deposition and Graphene-Induced Germanium Nanofaceting. Chemistry of Materials, 2022, 34, 6769-6778.	6.7	4
7	CVD Synthesis of Graphene Nanomesh on Ge(001). ECS Meeting Abstracts, 2022, MA2022-01, 876-876.	0.0	0
8	Materials Science Challenges to Graphene Nanoribbon Electronics. ACS Nano, 2021, 15, 3674-3708.	14.6	108
9	Aligned 2D carbon nanotube liquid crystals for wafer-scale electronics. Science Advances, 2021, 7, eabh0640.	10.3	40
10	To Fluorinate or Not to Fluorinate in Organic Solar Cells: Achieving a Higher PCE of 15.2% when the Donor Polymer is Halogenâ€Free. Advanced Energy Materials, 2021, 11, 2102648.	19.5	33
11	Pnictogens Allotropy and Phase Transformation during van der Waals Growth. Nano Letters, 2020, 20, 8258-8266.	9.1	7
12	Exploring driving forces for length growth in graphene nanoribbons during chemical vapor deposition of hydrocarbons on Ge(0Â0Â1) via kinetic Monte Carlo simulations. Applied Surface Science, 2020, 527, 146784.	6.1	8
13	Boundary-directed epitaxy of block copolymers. Nature Communications, 2020, 11, 4151.	12.8	22
14	Rotational self-alignment of graphene seeds for nanoribbon synthesis on Ge(001) via chemical vapor deposition. APL Materials, 2020, 8, .	5.1	5
15	Van Der Waals Growth of III-V Semiconductors on Graphene. ECS Meeting Abstracts, 2020, MA2020-01, 835-835.	0.0	1
16	Anisotropic Synthesis of Armchair Graphene Nanoribbon Arrays from Sub-5 nm Seeds at Variable Pitches on Germanium. Journal of Physical Chemistry Letters, 2019, 10, 4266-4272.	4.6	17
17	Synthesis of Armchair Graphene Nanoribbons on Germanium-on-Silicon. Journal of Physical Chemistry C, 2019, 123, 18445-18454.	3.1	12
18	Scalable Alignment of Carbon Nanotubes via Shear. ECS Transactions, 2019, 93, 117-120.	0.5	3

#	Article	IF	Citations
19	Passivation of Germanium by Graphene for Stable Graphene/Germanium Heterostructure Devices. ACS Applied Nano Materials, 2019, 2, 4313-4322.	5.0	11
20	Dynamics of Antimoneneâ€“Graphene Van Der Waals Growth. Advanced Materials, 2019, 31, e1900569.	21.0	30
21	Alignment of semiconducting graphene nanoribbons on vicinal Ge(001). Nanoscale, 2019, 11, 4864-4875.	5.6	26
22	CVD Synthesis of Armchair Graphene Nanoribbons on Ge/Si(001). ECS Transactions, 2019, 93, 133-136.	0.5	2
23	Tightly Pitched sub-10 nm Graphene Nanoribbon Arrays via Seed Mediated Growth on Ge (001). ECS Transactions, 2019, 93, 121-124.	0.5	3
24	Synthesis of Semiconducting Graphene Nanoribbons on Ge and Ge/Si via Chemical Vapor Deposition. ECS Transactions, 2019, 93, 129-132.	0.5	2
25	Substrateâ€Wide Confined Shear Alignment of Carbon Nanotubes for Thin Film Transistors. Advanced Electronic Materials, 2019, 5, 1800593.	5.1	34
26	Seed-Initiated Anisotropic Growth of Unidirectional Armchair Graphene Nanoribbon Arrays on Germanium. Nano Letters, 2018, 18, 898-906.	9.1	43
27	Growth and Luminescence of Polytypic InP on Epitaxial Graphene. Advanced Functional Materials, 2018, 28, 1705592.	14.9	17
28	Driving chemical interactions at graphene-germanium van der Waals interfaces via thermal annealing. Applied Physics Letters, 2018, 113, .	3.3	9
29	Invariance of Water Permeance through Size-Differentiated Graphene Oxide Laminates. ACS Nano, 2018, 12, 7855-7865.	14.6	71
30	Epitaxial graphene-encapsulated surface reconstruction of Ge(110). Physical Review Materials, 2018, 2, .	2.4	16
31	High-Performance Charge Transport in Semiconducting Armchair Graphene Nanoribbons Grown Directly on Germanium. ACS Nano, 2017, 11, 8924-8929.	14.6	38
32	Passivation of Germanium by Graphene. ACS Applied Materials & Interfaces, 2017, 9, 17629-17636.	8.0	25
33	Layer-Controlled Chemical Vapor Deposition Growth of MoS₂ Vertical Heterostructures via van der Waals Epitaxy. ACS Nano, 2016, 10, 7039-7046.	14.6	122
34	Sub-5â€‰nm, globally aligned graphene nanoribbons on Ge(001). Applied Physics Letters, 2016, 108, .	3.3	31
35	Directed self-assembly of block copolymer films on atomically-thin graphene chemical patterns. Scientific Reports, 2016, 6, 31407.	3.3	20
36	Orientation Control of Selected Organic Semiconductor Crystals Achieved by Monolayer Graphene Templates. Advanced Materials Interfaces, 2016, 3, 1600621.	3.7	16

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37	Graphene-induced Ge (001) surface faceting. Surface Science, 2016, 647, 90-95.	1.9	35
38	Controlling the density of pinhole defects in monolayer graphene synthesized via chemical vapor deposition on copper. Carbon, 2016, 100, 1-6.	10.3	26
39	Simple Graphene Synthesis via Chemical Vapor Deposition. Journal of Chemical Education, 2015, 92, 1903-1907.	2.3	57
40	Tailoring the Growth Rate and Surface Facet for Synthesis of High-Quality Continuous Graphene Films from CH₄ at 750 Â°C via Chemical Vapor Deposition. Journal of Physical Chemistry C, 2015, 119, 11516-11523.	3.1	14
41	Electronic and Mechanical Properties of Grapheneâ€“Germanium Interfaces Grown by Chemical Vapor Deposition. Nano Letters, 2015, 15, 7414-7420.	9.1	103
42	Direct oriented growth of armchair graphene nanoribbons on germanium. Nature Communications, 2015, 6, 8006.	12.8	157
43	Diffusion-Assisted Photoexcitation Transfer in Coupled Semiconducting Carbon Nanotube Thin Films. ACS Nano, 2014, 8, 5383-5394.	14.6	33
44	Highly Stretchable Carbon Nanotube Transistors with Ion Gel Gate Dielectrics. Nano Letters, 2014, 14, 682-686.	9.1	152
45	Semiconducting Carbon Nanotube Aerogel Bulk Heterojunction Solar Cells. Small, 2014, 10, 3299-3306.	10.0	52
46	Graphene Growth Dynamics on Epitaxial Copper Thin Films. Chemistry of Materials, 2013, 25, 871-877.	6.7	133
47	Design length scales for carbon nanotube photoabsorber based photovoltaic materials and devices. Journal of Applied Physics, 2013, 113, 204504.	2.5	17
48	Existence of Erbium Hexaboride Nanowires. Journal of the American Ceramic Society, 2012, 95, 3992-3996.	3.8	8
49	Rare Earth Hexaboride Nanowires: General Synthetic Design and Analysis Using Atom Probe Tomography. Chemistry of Materials, 2011, 23, 2606-2610.	6.7	55