Sven Barth

List of Publications by Year
in descending order

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Version: 2024-02-01

69	2,792	172457	175258
papers	citations	29 h-index	52 g-index

70	70	70	3981
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Synthesis and applications of one-dimensional semiconductors. Progress in Materials Science, 2010, 55, 563-627.	32.8	450
2	Size-Dependent Photoconductance in SnO2 Nanowires. Small, 2005, 1, 713-717.	10.0	271
3	Ordered Iron Oxide Nanotube Arrays of Controlled Geometry and Tunable Magnetism by Atomic Layer Deposition. Journal of the American Chemical Society, 2007, 129, 9554-9555.	13.7	232
4	Fabrication and electrical characterization of circuits based on individual tin oxide nanowires. Nanotechnology, 2006, 17, 5577-5583.	2.6	135
5	Toward a Systematic Understanding of Photodetectors Based on Individual Metal Oxide Nanowires. Journal of Physical Chemistry C, 2008, 112, 14639-14644.	3.1	130
6	Moleculeâ€Based Chemical Vapor Growth of Aligned SnO₂ Nanowires and Branched SnO₂/V₂O₅ Heterostructures. Small, 2007, 3, 2070-2075.	10.0	118
7	Insight into the Role of Oxygen Diffusion in the Sensing Mechanisms of SnO₂ Nanowires. Advanced Functional Materials, 2008, 18, 2990-2994.	14.9	96
8	Chemical Vapor Growth of Oneâ€dimensional Magnetite Nanostructures. Advanced Materials, 2008, 20, 1550-1554.	21.0	92
9	Direct-write of free-form building blocks for artificial magnetic 3D lattices. Scientific Reports, 2018, 8, 6160.	3.3	87
10	Nanoscale Ferroelectric and Piezoelectric Properties of Sb₂S₃ Nanowire Arrays. Nano Letters, 2012, 12, 868-872.	9.1	61
11	Precursors for direct-write nanofabrication with electrons. Journal of Materials Chemistry C, 2020, 8, 15884-15919.	5.5	56
12	Defect Transfer from Nanoparticles to Nanowires. Nano Letters, 2011, 11, 1550-1555.	9.1	52
13	Diameter-Controlled Solid-Phase Seeding of Germanium Nanowires: Structural Characterization and Electrical Transport Properties. Chemistry of Materials, 2011, 23, 3335-3340.	6.7	48
14	Amplified electrochemical DNA-sensing of nanostructured metal oxide films deposited on disposable graphite electrodes functionalized by chemical vapor deposition. Sensors and Actuators B: Chemical, 2009, 136, 432-437.	7.8	47
15	The elastic moduli of oriented tin oxide nanowires. Nanotechnology, 2009, 20, 115705.	2.6	44
16	Gas sensors based on individual indium oxide nanowire. Sensors and Actuators B: Chemical, 2017, 238, 447-454.	7.8	44
17	Alkane and Alkanethiol Passivation of Halogenated Ge Nanowires. Chemistry of Materials, 2010, 22, 6370-6377.	6.7	42
18	Seedless Growth of Sub-10 nm Germanium Nanowires. Journal of the American Chemical Society, 2010, 132, 13742-13749.	13.7	42

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19	Microwave-assisted solutionâ€“liquidâ€“solid growth of Ge_{1â^'x}Sn_x nanowires with high tin content. Chemical Communications, 2015, 51, 12282-12285.	4.1	42
20	Magnetic Characterization of Direct-Write Free-Form Building Blocks for Artificial Magnetic 3D Lattices. Materials, 2018, 11, 289.	2.9	40
21	Microwave-Assisted Ge_{1â€“x}Sn_x Nanowire Synthesis: Precursor Species and Growth Regimes. Chemistry of Materials, 2015, 27, 6125-6130.	6.7	39
22	Crystalline Niobium Carbide Superconducting Nanowires Prepared by Focused Ion Beam Direct Writing. ACS Nano, 2019, 13, 6287-6296.	14.6	37
23	Studies on Surface Facets and Chemical Composition of Vapor Grown One-Dimensional Magnetite Nanostructures. Crystal Growth and Design, 2009, 9, 1077-1081.	3.0	36
24	Epitaxial Ge_{0.81}Sn_{0.19} Nanowires for Nanoscale Mid-Infrared Emitters. ACS Nano, 2019, 13, 8047-8054.	14.6	34
25	Pushing the Composition Limit of Anisotropic Ge_{1â€“x}Sn_x Nanostructures and Determination of Their Thermal Stability. Chemistry of Materials, 2017, 29, 9802-9813.	6.7	33
26	Localized growth and in situ integration of nanowires for device applications. Chemical Communications, 2012, 48, 4734.	4.1	32
27	Site-selectively grown SnO2 NWs networks on micromembranes for efficient ammonia sensing in humid conditions. Sensors and Actuators B: Chemical, 2016, 232, 402-409.	7.8	31
28	Site-Specific Growth and in Situ Integration of Different Nanowire Material Networks on a Single Chip: Toward a Nanowire-Based Electronic Nose for Gas Detection. ACS Sensors, 2018, 3, 727-734.	7.8	31
29	Direct Synthesis of Hyperdoped Germanium Nanowires. ACS Nano, 2018, 12, 1236-1241.	14.6	30
30	Metastable Group IV Allotropes and Solid Solutions: Nanoparticles and Nanowires. Chemistry of Materials, 2020, 32, 2703-2741.	6.7	26
31	Low temperature humidity sensor based on Ge nanowires selectively grown on suspended microhotplates. Sensors and Actuators B: Chemical, 2017, 243, 669-677.	7.8	23
32	Electron Induced Surface Reactions of HFeCo₃(CO)₁₂, a Bimetallic Precursor for Focused Electron Beam Induced Deposition (FEBID). Journal of Physical Chemistry C, 2018, 122, 2648-2660.	3.1	22
33	Ferromagnetic Nanostructures by Atomic Layer Deposition: From Thin Films Towards Core-Shell Nanotubes. ECS Transactions, 2007, 11, 139-148.	0.5	21
34	Gate voltage induced phase transition in magnetite nanowires. Applied Physics Letters, 2013, 102, 073112.	3.3	21
35	Growth of monocrystalline In2O3 nanowires by a seed orientation dependent vapourâ€“solidâ€“solid mechanism. Journal of Materials Chemistry C, 2014, 2, 5747.	5.5	17
36	Structure and energetics in dissociative electron attachment to HFeCo3(CO)12. European Physical Journal D, 2016, 70, 1.	1.3	17

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37	Formation and decay of negative ion states up to 11ÂeV above the ionization energy of the nanofabrication precursor HFeCo₃(CO)₁₂. Chemical Science, 2017, 8, 5949-5952.	7.4	16
38	Electron interactions with the heteronuclear carbonyl precursor H₂FeRu₃(CO)₁₃ and comparison with HFeCo₃(CO)₁₂: from fundamental gas phase and surface science studies to focused electron beam induced deposition. Beilstein Journal of Nanotechnology, 2018, 9, 555-579.	2.8	16
39	Living up to its potentialâ€"Direct-write nanofabrication with focused electron beams. Journal of Applied Physics, 2021, 130, .	2.5	14
40	One-Dimensional Semiconductor Nanostructures: Growth, Characterization and Device Applications. Zeitschrift Fur Physikalische Chemie, 2008, 222, 307-317.	2.8	13
41	Solution-based low-temperature synthesis of germanium nanorods and nanowires. Monatshefte FÃ¼r Chemie, 2018, 149, 1315-1320.	1.8	13
42	Inducing imperfections in germanium nanowires. Nano Research, 2017, 10, 1510-1523.	10.4	11
43	Glycol modified cis -diisopropoxy- bis (N) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 507 transformation to nanocrystalline zirconia. Journal of Coordination Chemistry, 2008, 61, 2234-2245.	2.2	10
44	Size-controlled growth of germanium nanowires from ternary eutectic alloy catalysts. Journal of Materials Chemistry C, 2014, 2, 4597-4605.	5.5	10
45	Nanostructured ZrO2 membranes prepared by liquid-injection chemical vapor deposition. Microporous and Mesoporous Materials, 2012, 163, 229-236.	4.4	9
46	High-k Dielectric Passivation: Novel Considerations Enabling Cell Specific Lysis Induced by Electric Fields. ACS Applied Materials & Interfaces, 2016, 8, 21228-21235.	8.0	9
47	Magnetoelectrical Transport Improvements of Postgrowth Annealed Ironâ€"Cobalt Nanocomposites: A Possible Route for Future Room-Temperature Spintronics. ACS Applied Nano Materials, 2018, 1, 3364-3374.	5.0	9
48	Influence of precursor chemistry on CVD grown TiO2 coatings: differential cell growth and biocompatibility. RSC Advances, 2013, 3, 11234.	3.6	7
49	Electron beam lithography for contacting single nanowires on non-flat suspended substrates. Sensors and Actuators B: Chemical, 2019, 286, 616-623.	7.8	7
50	Temperature-Dependent Growth Characteristics of Nb- and CoFe-Based Nanostructures by Direct-Write Using Focused Electron Beam-Induced Deposition. Micromachines, 2020, 11, 28.	2.9	7
51	Gas Nanosensors Based on Individual Indium Oxide Nanostructures. Procedia Engineering, 2015, 120, 795-798.	1.2	6
52	Lead-supported germanium nanowire growth. Materials Letters, 2016, 173, 248-251.	2.6	6
53	Drastic Changes in Material Composition and Electrical Properties of Gallium-Seeded Germanium Nanowires. Crystal Growth and Design, 2019, 19, 2531-2536.	3.0	6
54	Direct Writing of Cobalt Silicide Nanostructures Using Single-Source Precursors. ACS Applied Materials & Interfaces, 2021, 13, 48252-48259.	8.0	6

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55	Synthesis and characterisation of thioether functionalised gallium and indium alkoxides. Dalton Transactions, 2015, 44, 16439-16445.	3.3	5
56	Thioether functionalised gallium and indium alkoxides in materials synthesis. New Journal of Chemistry, 2016, 40, 6962-6969.	2.8	5
57	Lowâ€temperature solâ€“gel transformation of methyl silicon precursors to silicaâ€based hybrid materials. Applied Organometallic Chemistry, 2008, 22, 629-636.	3.5	4
58	Synthesis and Magnetic Characterization of Coaxial Ge_{1â€“x}Mn_x/a-Si Heterostructures. Crystal Growth and Design, 2011, 11, 5253-5259.	3.0	4
59	Locally Grown SnO 2 NWs as Low Power Ammonia Sensor. Procedia Engineering, 2015, 120, 215-219.	1.2	4
60	Aerosol-assisted CVD of thioether-functionalised indium aminoalkoxides. Monatshefte FÃ¼r Chemie, 2017, 148, 1385-1392.	1.8	4
61	Individual Gallium Oxide Nanowires for Humidity Sensing at Low Temperature. Proceedings (mdpi), 2017, 1, .	0.2	4
62	Low-cost Fabrication of Zero-power Metal Oxide Nanowire Gas Sensors: Trends and Challenges. Procedia Engineering, 2015, 120, 488-491.	1.2	2
63	Monomeric aminoalcoholates of aluminium(III), gallium(III), and indium(III). Monatshefte FÃ¼r Chemie, 2016, 147, 341-348.	1.8	2
64	One-dimensional semiconductor nanostructures: growth, characterization and device applications. , 2006, 6340, 45.		1
65	Kinetics of the charge ordering in magnetite below the Verwey temperature. Journal of Physics Condensed Matter, 2014, 26, 472202.	1.8	1
66	Gas Sensors Based on Individual (Ga, In)2O3 Nanowires. Proceedings (mdpi), 2017, 1, 321.	0.2	1
67	Localized and In-Situ Integration of Different Nanowire Materials for Electronic Nose Applications. Proceedings (mdpi), 2018, 2, 957.	0.2	1
68	Gas Sensing Devices Based on 1D Metal-Oxide Nanostructures: Fabrication, Testing and Device Integration. ECS Transactions, 2008, 13, 57-64.	0.5	0
69	Vanadium and Manganese Carbonyls as Precursors in Electron-Induced and Thermal Deposition Processes. Nanomaterials, 2022, 12, 1110.	4.1	0