

# Jörg Schuster

## List of Publications by Year in descending order

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63  
papers

1,023  
citations

430754

18  
h-index

454834

30  
g-index

64  
all docs

64  
docs citations

64  
times ranked

1177  
citing authors

#	ARTICLE	IF	CITATIONS
1	Chemical Mechanism of AlF <sub>3</sub> Etching during AlMe <sub>3</sub> Exposure: A Thermodynamic and DFT Study. Journal of Physical Chemistry C, 2022, 126, 7410-7420.	1.5	2
2	Optimization of synthetic jet actuation by analytical modeling. Aircraft Engineering and Aerospace Technology, 2021, 93, 558-565.	0.7	0
3	Giant Piezoelectricity of Deformed Aluminum Nitride Stabilized through Noble Gas Interstitials for Energy Efficient Resonators. Advanced Electronic Materials, 2021, 7, 2100358.	2.6	5
4	Anisotropic transport properties of graphene-based conductor materials. Journal of Materials Science, 2021, 56, 14624-14631.	1.7	1
5	Giant Piezoelectricity of Deformed Aluminum Nitride Stabilized through Noble Gas Interstitials for Energy Efficient Resonators (Adv. Electron. Mater. 8/2021). Advanced Electronic Materials, 2021, 7, 2170032.	2.6	2
6	Electrical Characterization of Germanium Nanowires Using a Symmetric Hall Bar Configuration: Size and Shape Dependence. Nanomaterials, 2021, 11, 2917.	1.9	5
7	Ferrocenylâ€Pyrenes, Ferrocenylâ€10â€Phenanthrenediones, and Ferrocenylâ€10â€Dimethoxyphenanthrenes: Chargeâ€Transfer Studies and SWCNT Functionalization. Chemistry - A European Journal, 2020, 26, 2635-2652.	1.7	18
8	Formation and crystallographic orientation of NiSiâ€Si interfaces. Journal of Applied Physics, 2020, 128, 085301.	1.1	7
9	Quantifying the influence of graphene film nanostructure on the macroscopic electrical conductivity. Nano Express, 2020, 1, 020035.	1.2	8
10	Electron transport through NiSi <sub>2</sub> â€Si contacts and their role in reconfigurable field-effect transistors. Journal of Physics Condensed Matter, 2019, 31, 355002.	0.7	7
11	Towards Reconfigurable Electronics: Silicidation of Top-Down Fabricated Silicon Nanowires. Applied Sciences (Switzerland), 2019, 9, 3462.	1.3	16
12	Carbon Nanotubes for Mechanical Sensor Applications. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900584.	0.8	12
13	Role of Contacts In Carbon Nanotube Giant Piezoresistive Sensors. , 2019, , .		0
14	An improved Greenâ€™s function algorithm applied to quantum transport in carbon nanotubes. Computational Materials Science, 2019, 169, 109014.	1.4	1
15	Sensitivity control of carbon nanotube-based piezoresistive sensors by drain-induced barrier thinning. Sensors and Actuators A: Physical, 2019, 295, 288-295.	2.0	8
16	Strain and screening: Optical properties of a small-diameter carbon nanotube from first principles. Physical Review B, 2019, 99, .	1.1	10
17	Computationally efficient simulation method for conductivity modeling of 2D-based conductors. Computational Materials Science, 2019, 161, 364-370.	1.4	4
18	Radially resolved electronic structure and charge carrier transport in silicon nanowires. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 108, 181-186.	1.3	6

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19	Feasible Device Architectures for Ultrascaled CNTFETs. IEEE Nanotechnology Magazine, 2018, 17, 100-107.	1.1	14
20	Electronic transport through defective semiconducting carbon nanotubes. Journal of Physics Communications, 2018, 2, 105012.	0.5	4
21	Electrical Conductivity Modeling of Graphene-based Conductor Materials. ACS Applied Materials & Interfaces, 2018, 10, 43088-43094.	4.0	35
22	Influence of defect-induced deformations on electron transport in carbon nanotubes. Journal of Physics Communications, 2018, 2, 115023.	0.5	5
23	Improved recursive Green's function formalism for quasi one-dimensional systems with realistic defects. Journal of Computational Physics, 2017, 334, 607-619.	1.9	9
24	Ab initio study of the trimethylaluminum atomic layer deposition process on carbon nanotubes—An alternative initial step. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 01B113.	0.9	3
25	Multiparameter and Parallel Optimization of ReaxFF Reactive Force Field for Modeling the Atomic Layer Deposition of Copper. Journal of Physical Chemistry C, 2017, 121, 28077-28089.	1.5	10
26	Elastic and piezoresistive properties of nickel carbides from first principles. Physical Review B, 2017, 95, .	1.1	8
27	Electronic transport in metallic carbon nanotubes with mixed defects within the strong localization regime. Computational Materials Science, 2017, 138, 49-57.	1.4	15
28	Theoretical investigation of in situ k-restore processes for damaged ultra-low-k dielectrics. Microelectronic Engineering, 2016, 156, 121-125.	1.1	1
29	Empirical transport model of strained CNT transistors used for sensor applications. Journal of Computational Electronics, 2016, 15, 881-890.	1.3	8
30	Comparison of atomistic quantum transport and numerical device simulation for carbon nanotube field-effect transistors. , 2016, , .		3
31	Theoretical investigation of an in situ k-restore process for damaged ultra-low-k materials based on plasma enhanced fragmentation. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2015, 33, 052203.	0.6	3
32	Theoretical investigation of in situ k-restore processes for damaged ultra-low-k materials. , 2015, , .		1
33	Simulation of ALD chemistry of (nBu3P)2Cu(acac) and Cu(acac)2 precursors on Ta(110) surface. Microelectronic Engineering, 2015, 137, 23-31.	1.1	11
34	Interaction between carbon nanotubes and metals: Electronic properties, stability, and sensing. Microelectronic Engineering, 2015, 137, 124-129.	1.1	12
35	Optimized Monolithic 2-D Spin-Valve Sensor for High-Sensitivity Compass Applications. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	21
36	Surface chemistry of copper metal and copper oxide atomic layer deposition from copper( $\text{acac}$ ) acetylacetonate: a combined first-principles and reactive molecular dynamics study. Physical Chemistry Chemical Physics, 2015, 17, 26892-26902.	1.3	34

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37	Metallic carbon nanotubes with metal contacts: electronic structure and transport. Nanotechnology, 2014, 25, 425203.	1.3	30
38	Strong localization in defective carbon nanotubes: a recursive Green's function study. New Journal of Physics, 2014, 16, 123026.	1.2	12
39	System-level-model development of an SWCNT based piezoresistive sensor in VHDL-AMS. , 2014, , .		2
40	Modeling and simulation of the interplay between contact metallization and stress liner technologies for strained silicon. Microelectronic Engineering, 2013, 107, 161-166.	1.1	1
41	Comparison of quantum mechanical methods for the simulation of electronic transport through carbon nanotubes. Microelectronic Engineering, 2013, 106, 100-105.	1.1	11
42	Extended Hückel Theory for Carbon Nanotubes: Band Structure and Transport Properties. Journal of Physical Chemistry A, 2013, 117, 3650-3654.	1.1	13
43	Simulation of nanostructures for sensor and circuit applications. , 2012, , .		0
44	DFT investigations of the piezoresistive effect of carbon nanotubes for sensor application. Physica Status Solidi (B): Basic Research, 2012, 249, 2450-2453.	0.7	12
45	Band gap tuning of carbon nanotubes for sensor and interconnect applications &#x2014; A quantum simulation study. , 2012, , .		1
46	Nanomechanics of CNTs for sensor application. , 2012, , .		2
47	Photoinduced hole trapping in single semiconductor quantum dots at specific sites at silicon oxide interfaces. Physical Chemistry Chemical Physics, 2011, 13, 17084.	1.3	34
48	Influence of mesoscopic structures on single molecule dynamics in thin smectic liquid crystal films. Soft Matter, 2011, 7, 7431.	1.2	24
49	FRET and ligand related NON-FRET processes in single quantum dot-perylene bisimide assemblies. Physical Chemistry Chemical Physics, 2010, 12, 4112.	1.3	64
50	Transport in carbon nanotubes: Contact models and size effects. Physica Status Solidi (B): Basic Research, 2010, 247, 3002-3005.	0.7	28
51	Optical detection of heterogeneous single molecule diffusion in thin liquid crystal films. Physical Chemistry Chemical Physics, 2010, 12, 11555.	1.3	27
52	Identification of Different Donor-Acceptor Structures via Förster Resonance Energy Transfer (FRET) in Quantum-Dot-Perylene Bisimide Assemblies. International Journal of Molecular Sciences, 2009, 10, 5239-5256.	1.8	28
53	Restricted conformation dynamics of single functionalized perylene bisimide molecules on SiO <sub>2</sub> surfaces and in thin polymer films. Molecular Physics, 2009, 107, 1911-1921.	0.8	16
54	Discrimination of photoblinking and photobleaching on the single molecule level. Journal of Luminescence, 2007, 127, 224-229.	1.5	21

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55	<title>Variation of power-law dynamics caused by dark state recovery of fluorescence intermittency of a single quantum system</title>. , 2006, , .		2
56	Blinking of single molecules in various environments. Optics and Spectroscopy (English Translation) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.2	58
57	Influence of self-trapped states on the fluorescence intermittency of single molecules. Applied Physics Letters, 2005, 87, 051915.	1.5	69
58	Diffusion in ultrathin liquid films. European Polymer Journal, 2004, 40, 993-999.	2.6	22
59	Reorientation and translation of individual dye molecules in a polymer matrix. European Polymer Journal, 2004, 40, 1019-1026.	2.6	82
60	Diffusion Measurements by Single-Molecule Spot-Size Analysis. Journal of Physical Chemistry A, 2002, 106, 5403-5406.	1.1	29
61	Diffusion of Single Molecules Close to Interfaces. Single Molecules, 2000, 1, 299-305.	1.6	26
62	Spectroscopy on Single Light-Harvesting Complexes at Low Temperature. Journal of Physical Chemistry B, 1999, 103, 6328-6333.	1.2	91
63	Correlation spectroscopy of individual molecules immobilized on surfaces under ambient conditions. Chemical Physics Letters, 1998, 282, 164-170.	1.2	9